OR2S ONLINE RAILWAY RESERVATION SYSTEM

Thesis submitted to Vidyasagar University for the partial fulfillment of the degree of M.Sc. in Computer Science

Submitted by

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DECLARATION

I do hereby declare that the present Master thesis entitled 'OR2S: ONLINE RAILWAY RESERVATION SYSTEM' embodies the original research work carried out by me in the Department of Pure and Applied Sciences, Midnapore City College, Paschim Medinipur, West Bengal, India under the supervision of Dr. Pradip Ghosh, Founder Director, Midnapore City College, Midnapore, West Bengal. No part thereof has been submitted for any degree or diploma in any university.

Date:

Place: Midnapore

APPROVAL SHEET

This project report entitled 'OR2S: ONLINE RAILWAY RESERVATION SYSTEM' by Amit Kumar Dutta, Ashim Kumar Sarkar, Bitu Das, Ganesh Santra, Krishnendu Nanda, Laxman Dey, Rajat Santra, Rakesh Mondal, Vaibhou Pandey is approved for the degree of M. Sc in Computer Science.

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ABSTRACT

The Railway Reservation System will facilitate users to enquire about the trains' availability between stations along with booking and cancellation of ticket and checking status of the booked ticket etc. It's an online real time computerized system of reserving seats of Inter-city, Superfast, Express, Passengers trains running through South Eastern Zone of Indian Railways. It also gives seats preferences to Senior citizens and especially abled people along with concession in fare amount as recommended by Indian Railways Standard policies. It also suggests routes to passengers from nearby station to their destination if there's no availability of trains from the given source station. It also gives option to reserve returning ticket in advance in a similar webpage for passenger convenience. We also advanced our approach further by including lifesaving feature for coach attendants to reach out any Doctor on board in any medical emergency. In Near future we will be focusing to expand our concept of simplicity and efficiency in tatkal ticket booking through our platform. Moreover, it's overcoming the major drawbacks of the INDIAN RAILWAYS CATERING AND TOURISM CORPORATION (IRCTC) along with providing ticket booking & cancellation services tax free, with several additional amenities in a benefit of passengers to make their journey hassle free with Indian Railways. It gives overall seamless and less complex experience to the user with its user-friendly interface and it holds potential of improvement as per necessity along with further future advancement of technologies and policies of Indian Railways.

INTRODUCTION

The Indian Railway has been backbone of social, political and economic life of 1.3 billion Indians [census, 2020] from over centuries to till now. It has played important role in weaving India in to a nation. Since its birth it has been the best public transportation and networked facility provider for Indian and being the biggest economic payee of the Indian government as well as biggest social service provider for the nation. As through time along with technology advancement, Indian Railways have paved its way through to be further advanced to make their services available at a fingertip of passengers.

From its initiative to track the location of trains in real-time through GPS enabled locomotive by Real Time Train information system (RTIS) and easing the procedure of ticket reservation and cancellation alongside of train query, seats availability and much more through Indian Railways Catering and Tourism Corporation (IRCTC) which serves 13 million passengers travelling across country through more than 13,000 trains every day from the 7,349 stations across the India. [Analysis, Railway Technology, June 2018]

For proper functioning structure, Indian Railways has divided its operations into 19 zones, which are further subdivided into 70 divisions, each having its own divisional headquarter. (Including Metro Railway, Kolkata). As being one of the oldest, busiest and largest railway networks in the world, it's obvious that Indian Railway have several major to minor drawbacks to its system as due to its primitive nature and slow adaptation with technologies which on daily basis causes inconvenience to the passengers.

Our Purpose of this project is to replace old and flawed system of online ticket reservation through IRCTC website and provide better services to the passengers. As Indian Railway Network is so vast, instead of being focused on whole system we tried to improve and implement our idea in our familiar zone – South Eastern Railways [SER].

In our project we sought to build a simple platform where all necessary information and services are provided in a similar webpage in a much distinct pattern for the passenger to understood it at ease, where passenger and railway staff can login to the portal with the valid credential. It provides tax free service of booking or cancellation of seat reservation in respective train along with a feature to book your returning ticket in an advance in one go as per seat availability. It also suggests any connecting train from nearby station if there's no trains available at a given source station to destination of the passengers. Our interface also provides information about queries of the passengers related to E - ticket booking services such as seat availability in the train, PNR status check etc. We advanced E-ticket booking service with a seat preference to Pregnant Woman, Senior citizens and especially abled person for their comfortable journey. We also provided login portal for coach attendant and railway staff to reach out on board medical supervisor or doctor for any medical emergency. We applied fare concession on booking E- tickets for infant/child, Senior Citizens and especially abled passenger as per Indian Railway Guidelines.

Our project sole purpose is to make a seamless passenger friendly interface which could be easily used by common people with no unwanted ad popups or complex technicalities alongside providing E-ticket services tax free. We are not only focusing on major drawbacks of IRCTC services and providing some alternate platform as its replacement instead we are also focusing on some major ideas and including new services to benefit passengers of Indian Railways.

OBJECTIVES

The online railway ticket reservation system aims to develop a web application to provide trains details, availability, as well as the facility to book ticket effortlessly for the passengers. The Application was to be divided into two parts namely the front-end part & back-end part of database and each of these has their corresponding features. We've decided to the name our project as - "OR2S - ONLINE RAILWAY RESERVATION SYSTEM".

Main Objectives of online railway reservation system -

- To search the train between stations, its arrival & departure time as well as seat availability.
- Seat preferences for Pregnant Woman, especially Abled Persons and Senior Citizens.
- Berth preferences could be given by the passenger at the time of booking.
- Effortlessly booking and cancellation.
- You can also export the reports into PDF format for ticket.
- Suggested train paths for non-connecting trains.
- Smooth and seamless User-Interface.
- Advertisement free Interface which leads it to be Non-Laggy and Traffic Free.
- Tatkal ticket booking.
- Doctor berth information can be accessed by onboard staff in emergency.
- Fingertip access for PNR enquiry.
- Lesser hassle to book ticket in fewer steps
- Tax Free
- Multilingual User Interface
- Inbuilt Speech-to-text recognition technology
- Cross-Platform availability

PRELIMINERY INVESTIGATION

Indian Railways (IR) is a statutory body under the ownership of the Ministry of Railways, Government of India that operates India's national railway system. It manages the fourth largest national railway system in the world by size, as of 31 March 2022, IR network spans 128,305 km (79,725 mi) of track length, 102,831 km (63,896 mi) of running track length and 68,043 km (42,280 mi) of route length as stated in Year Book 2021-22. It runs 13,169 passenger trains daily, on both long-distance and suburban routes, covering 7,325 stations across India. In 2020, According to data Indian Railways carried 808.6 crore (8.086 billion) passengers. Due to such vast network the Indian Railways is divided into 18 zones under categories to smooth the progress of management and functionality which are headed by general managers who report to the Railway Board. The zones are further subdivided into 71 operating divisions, headed by divisional railway managers (DRM).

In 1982, to reap the benefit of IT explosion Indian Railways (IR) set up a central organization to computerize freight operations (COFOIS). In 1986, this was converted into a dedicated, autonomous organization (CRIS), an umbrella organization for all information technology-related activities on Indian Railways. It was tasked with designing, developing and implementing the Freight Operations Information System (FOIS) and its communications infrastructure. CRIS began functioning in July 1986 as an autonomous organization headed by an executive director (later renamed managing director).

CRIS was primarily introduced for designing, developing, implementing and maintaining information systems for Indian Railways.

Until the late 1980s, Indian Railways ticket reservations were made manually. In 1986, computerized ticketing and reservations were introduced in New Delhi. Two years later, the first self-printing ticket machine (SPTM) was introduced in New Delhi. The CONCERT system of computerized reservations was deployed in New Delhi, Mumbai and Chennai in September 1996. Thus, Indian Railways computerized ticketing system went online -Passenger Reservation System (PRS): A nationwide online passenger reservation and ticketing system, developed and maintained by CRIS, was developed in C and Fortran on a Digital OpenVMS operating system using RTR (Reliable Transaction Router) as middleware. Also known as CONCERT (Country-wide Network of Computerized Enhanced Reservation and Ticketing), it interconnects the four regional computing systems (in New Delhi, Mumbai, Kolkata and Chennai) into a national PRS grid. It allows a passenger anywhere to book train tickets from any station to any station. PRS handles reservations, modification, cancellations and refunds, reserving over 1.6 million seats and berths daily. Complex rules, validations and fare-computation techniques are interwoven in the application. This system is currently under modernization, in which Passengers have to fill the requisition form available on the booking premises. Once the form is duly filled correctly, it is handed over to the reservation clerk. The information is entered digitally in the software after which it displays the status of seat availability. In the final stage, the clerk confirms whether tickets have to be booked or not. If yes, then, the ticket is printed and handed over to the passenger after payment of the exact fair price. Not only ticket reservation but cancellation is also done at PRS windows. Passengers who have to cancel their tickets because of any unavoidable reasons can do it offline. The passengers need to visit the nearest PRS window and fill the cancellation form along with the tickets generated. The amount is refunded after the deduction of cancellation charges specified by the railway authorities.

Here're some Interesting Facts about PRS Windows:

- 15 Lakh Transactions a Day: The PRS counters carry out more than 15 lakh transaction in a day. This increases twofold during the festive season.
- Transactions are greater than passengers: A true fact! The number of transactions exceeds the number of passengers because of the high waitlisted ticket booking and cancellation rate.

Network Dependent: The entire system is network-oriented.

As we know booking tickets from PRS counters, has always been inconvenient for passengers due to its long queue and different counters for booking, cancellation, train enquiry etc. So, to rectify these cons and to reduce heavy traffic on PRS counters, Indian railways introduced a new ticketing system called NGeT (New Generation E-Ticketing), at a total cost of Rs 180 crores for five years has been launched on 27 September 1999 by India Railways Catering & Tourism Corporation (IRCTC), a public sector undertaking of the Ministry of Railways. On 3 August 2002, IR began online train reservations and ticketing through Indian Railways Catering and Tourism Corporation's (IRCTC) official website (www.irctc.co.in).

It is the only entity that is authorized to provide certain services to the Indian Railways, including online ticketing, catering, and selling drinking water on trains and at railway stations. With the new system, that connects at the back-end to PRS the problem has lessened to a great extent. This new system has capacity to book 7200 tickets per minute as against the old capacity of 2000 tickets per minute. It supports 1,20,000 concurrent users at any point of time. This system has been designed for faster booking of online rail reserved ticket all over Indian Railways. The total amount generated by IRCTC through online ticket sales during the last three years, including current year (up to October 2014), is Rs.49310.38 crores. To increase the revenue, state of the art infrastructure and software has been provided to increase the capacity of e-ticketing system. The special benefits of using the online Indian railway tickets facilities are that passengers can reserve their tickets from the comfort of their home or office without having to stand in long queues at railway stations or having to take the trouble to go to a travel agent. A railway ticket can be done up to 90 days before our desired date of departure.

Indian Railways entrusted IRCTC with the task of conceptualizing, developing and implementing the software. The issues of flexibility, scalability and provision of totally self-help arrangement (as different from the assisted process at the Reservation Counters) had to be permitted to the internet users. Further a variety of online payment mechanisms (like Credit Cards, Internet Banking, Cash Cards, etc.) were to be integrated with for convenience of millions of users. IRCTC has also developed and published Web services to enable access to the basic internet service using other media like phones. All this and more has been done by IRCTC since its inception. The entire Internet ticketing concept was conceived, formulated and implemented by IRCTC within a record time span of less than 9 months. [Aggarwal et al, 2006].

It includes reservations (fee computing and ticketing), cancellations (computation of clearage/cancellation fees and refunds) modifications like postponing, preponing, modification journey, supervisory operations, enquiries, chart preparations and verification of data. [Shekhar & Singh 2020] Indian Railways provides two types of online railway tickets that is I-ticket and E-Ticket.

For those who are short of time and travel frequently, I-tickets have come as a boon. We can book i-ticket through the internet ticket-booking facility available at the IRCTC website. IRCTC has developed a user-friendly website where one can register and check the availability of tickets. The process of booking I-ticket has been kept simple to help people from all walks of life utilize this facility.

- The ticket is delivered at our doorsteps and we need a copy of a voter's ID card, passport or ration card to validate the address once the ticket reaches our address.
- The i-ticket needs to be booked three to four days prior to the travel date.
- The railway charges a minimal service amount and one can pay online through credit and debit cards.
- In case we wish to cancel the ticket, it cannot be done online and we need to visit the reservation counter.
- We can book an I-ticket from the IRCTC website.
- The popularity of an e-ticket can be gauged from the fact that it accounts for 98 percent of online rail
 reservations today. The primary reason behind this raging popularity of the e-ticket is its user-friendly
 approach. Working professionals who are constantly on the move benefit tremendously from this facility.

They can book the ticket while travelling and only need a valid identification document to authenticate their identity during the journey.

- The ticket is delivered to us in the form of an email that we have to print. The railway authorities also SMS our ticket. We simply need to show either the SMS or a printout of the email to the TT. We are also required to carry identification proof such as voter's ID card, passport or ration card.
- E-ticket can be booked any time prior to the preparation of departure chart of the train and tatkal service of the Indian Railways comes within the preview of this service.
- No extra charges apply.
- In case we wish to cancel the ticket for any reason, the same can be done prior to preparation of the
 departure chart of the train. The cancellation can be done online and the amount is credited back to our
 account. The refunding process is extremely fast if the booking has been done through the online
 reservation portal of the Indian Railways.

Internet ticketing operations of IRCTC were launched on 3rd August 2002 in collaboration with CRIS, the Centre for Railway Information Systems [Hubli et al, 2014]. Tickets for Rail journeys in India can be booked including Tatkal tickets on the Internet on the web site www.irctc.co.in; by any user after registering at the site (Registration is free). Payments for tickets are made by use of Master/Visa/Diners Club/American Express Credit Cards, Citibank Debit Cards and also through Direct Debits to the users' bank accounts; this is available to users who have their accounts in the 27 banks having Internet Banking facility like ICICI, HDFC, Citibank, IDBI, Bank of Punjab, UTI Bank, State Bank of India, Centurion Bank, Punjab National Bank, ABN Amro, Corporation Bank, Federal Bank, Union Bank of India, Oriental Bank of Commerce, Syndicate Bank, Indian Bank etc. and others which are being integrated shortly. There is also a cash card payment options from ITZ Cash Cards, I - cashcard and Done Cash Cards. I-Tickets get delivered to the users' homes/offices or any other address of their choice in over 220 cities of India within 48/72 hours. Web-Based Rail Reservation (Internet Ticketing) 175. The service charges per I-ticket are very nominal, i.e., Rs 40 per ticket (Not per head) for Sleeper Class Tickets and Rs. 60 per ticket (Not per head) for AC Class/First Class Tickets. From daily average sales of about 112 tickets in August 2002, the site today books more than 40,000 tickets daily. Though handling only a very small percentage of the tickets booked by the Indian Railways Passenger Reservation System, which book about 7 lakhs tickets daily, this website has today over 35 million registered users. Besides delivery of the tickets, IRCTC also makes several value additions such as 24-hour helpline to assist customers, on line answering of email round the clock, facilities for time table enquiries on train timings and other particulars, email alerts to Customers regarding the status of confirmation of their accommodations and an Online Consignment Tracking System to know the status of delivery of their tickets at any time. The I-ticket can be cancelled at any Computerized Reservation Counter across the country by submitting cancellation requisition along with the ticket. No cash is paid to the Customer at the time of cancellation. The amount is credited back to the Credit Card Account/Bank Account of the User. Other facilities like change of name, change of boarding point, etc., are also available only across counters Reservation timings are from 05.00 hrs. to 23.30 hrs. from Monday to Sunday. Customers should ensure that, depending on the place of delivery required by them, they allow a minimum of 2/3 clear days (excluding the date of journey and date of booking) before the date of journey to ensure hassle free delivery of the ticket.

On 12 August 2005 we have launched the e-Ticketing services. This scheme was initially introduced in only two Shahabad's. Now from 01-01-06 onwards, it covered all Rajdhani, Shatabdi, Jan Shatabdi and Super-fast trains and on 24-02-2006, E-ticketing services were launched to all trains. An electronic Ticket (commonly abbreviated as e-ticket) is a digital ticket. The term is most commonly associated with airline issued tickets. Electronic ticketing for urban or rail public transport is usually referred to as travel card or transit pass. It is also used in ticketing in the entertainment industry. An electronic ticket system is a more efficient method of ticket entry, processing and marketing for companies in the railways, flight and other transport industry. [CRIS et al, 2006]. The user need not have to have a physical ticket with him; he can take print out the Electronic Reservation Slip (ERS) in the specified Performa and travel. While travelling, the user has to carry the ERS along with the relevant

Government issued Photo Identity Card, which together constitute the travel authority. To avail this service, the user can log on to www.irctc.co.in and book his ticket on the Internet just like any normal booking, and selecting 'e-Ticket' in the Plan My Travel page. The user has to give the photo identity card details of any one of the passengers, while booking the ticket. On confirmation of his booking, the user can take a print of the Electronic Reservation Slip (ERS) and can perform the journey with the ERS and the photo identity card. At present only confirmed/RAC tickets can be booked through e-Reservation, while WL tickets can also be booked in the normal Internet Tickets.

The user is not required to give any input of the photo identity card details of any of the passengers while booking the ticket. However, he shall have to carry and show one of the any identity of proof of the passengers in original while travelling as per Indian Railway Guidelines.

Payments for e-Tickets can be made by Credit Cards (Master/Visa), Direct Debit or Cash Card IRCTC levies a service charge of Rs.15/- (Second/Sleeper) and Rs.20/- (Higher Class) for the first passenger and an additional Rs.5/- for every subsequent passenger up to a maximum of Rs.25/- (Second/Sleeper) and Rs.40/- (Higher Class) Cancellation of e-Ticket is permitted on the website (www.irctc.co.in) up to chart preparation. No cancellation is possible at Counters. Part/Complete cancellation is possible online, but if the passenger whose ID is recorded originally wants to cancel his journey alone, the entire ticket for the group has to be cancelled and fresh booking is to be done. In case person fails to carry ERS during the journey a penalty of Rs. 50/- is imposed. However, if a person fails to carry Photo Identity Card, then he is treated as without ticket.

Mobile ticketing is the process whereby customers can order, pay for, obtain and validate tickets from any location and at any time using mobile phones or other mobile handsets. Mobile tickets reduce the production and distribution costs connected with traditional paper-based ticketing channels and increase customer convenience by providing new and simple ways to purchase tickets. Mobile ticketing is a prime example of horizontal telecommunication convergence. Mobile ticketing is a method by which law enforcement agencies use in-car computers to create traffic citations in the field, then print a hard copy for the offender. The advantages of mobile ticketing include reduced paperwork time, reduced chance of tickets being made void by human error and immediate accessibility of citation information by other departments. [Engadget et al, 2017]

Under the Tatkal scheme, passengers who plan their journey at short notice can book their tickets for almost all Mail/Express trains through the Indian railway's internet portal. The booking starts at 10:00 AM daily for AC coach reservations and non-AC timing is residual to 11.00 AM, one day before the departure of the train from the source station. Tatkal E-tickets can be booked for selected trains one day in advance excluding the date of the journey from the train originating station. It can be booked on the opening day from 10:00 AM for the AC coach and 11:00 AM for NON-AC. Passengers traveling on Tatkal tickets should carry a photo ID proof along with them to be shown to the ticket checker. Earlier this year, the website launched the Lite version which doesn't include ads, pop-ups, etc., and check PNR status.

IRCTC introduced pantry cars inside long or medium distance trains which catered to passengers by serving freshly cooked food. IRCTC has exclusive rights for onboard catering of food on all trains operated by the Indian Railways. It also operates food plazas, Jan Aahar cafeterias and refreshment rooms at various railway stations. In 2014, IRCTC launched e-catering services which allowed passengers to order food from partner restaurants online or through phone call and have it delivered to their seats.

At major railway stations, IRCTC also manages air-conditioned waiting lounges, retiring rooms and budget hotels in partnership with private entities.

IRCTC also owns the bottled water brand "Rail Neer" which is sold on trains and railway stations among other places.

Indian Railways Catering and Tourism Corporation also organizes budget and deluxe package tours for domestic and foreign tourists. A popular tourism package for budget tourists covering important tourist destinations across

India is called "Bharat Darshan". Luxury tourism packages are also available, that involve special luxury trains such as Buddhist Circuit Train and Maharajas' Express operations.

India Railways has some of the lowest train fares in the world, and passenger traffic is subsidized by higher-class fares. Discounted tickets are available for senior citizens (over age 60), the differently-abled, students, athletes, and those taking competitive examinations. One compartment of the lowest class of accommodation is earmarked for women on every passenger train. Some berths or seats are also reserved for women or senior citizens.

On 1 April 2015, Indian Railway Catering and Tourism Corporation (IRCTC) created a new national record with 13,45,496 tickets booked in a day.

Indian Railway is investing actively in future of online ticket booking service with features such as, Commuters on the suburban rail can also book season tickets through the website. It has also launched a loyalty program called Shubh Yatra for frequent travelers. Through this program, passengers can avail of discounts on all tickets booked around the year by paying an upfront annual fee.

Seeking to make it easier to book e-tickets, it launched a scheme called Rolling Deposit Scheme (RDS). RDS is an e-ticket booking scheme allowing passengers to reserve seats against advance money kept with the corporation.

Selected passengers with confirmed tickets will now be allowed to transfer tickets to someone else. Indian Railway Catering and Tourism Corporation (IRCTC) is now offering a pay-on-delivery option for train tickets on its website and app, where the customers can book their tickets and pay on delivery.

For the enquiry related to the trains in a real time, Indian railways has introduced NTES - National Train Enquiry System. Managed by the Indian Railways, it is a system to help travelers get real-time information about train schedules. It includes features like Spot your Train, Live Station, Train Schedule, Cancelled Trains, Rescheduled Trains, Diverted trains, and Trains between Stations.

Which is backed by a Real-Time Information System (RTIS), developed in collaboration with Indian Space Research Organization (ISRO), is being installed on the locomotives for automatic acquisition of train movement timings at the stations, including that of arrival & departure or run-through. They get automatically plotted on the control chart of those trains in the Control Office Application (COA) system, which enables rail-traffic controllers to manage trains in their section, and is operational in all division control offices. The COA interfaces with other applications (such as NTES) to provide train information to passengers and managers. Recently, the Real Time Train Information System (RTIS) that enables Satellite Navigation data from train locomotives to directly update the train position in COA in real-time has been partially implemented. Now more accurate train running information is being passed to the passengers, which helps them to conveniently plan their arrival at the stations. Further, it is extremely handy for emergency messaging from locomotive to control center, helping in faster response in case of any breakdown or disaster.

Indian Railways had 1.254 million employees as of March 2020, making it the world's fourteenth-largest employer. The Crew Management System (CMS) is a critical IT application of the Indian Railways (IR) for managing crew assignment to the various trains which impacts the safety of train operations. Through these system, Indian railways give vision not only have a database of the crew but also provide several amenities to its passengers.

But as much as IRCTC have revolutionized the Indian Railways ticket booking services providing benefits to its passengers, it also has several drawbacks to its system, As being one of the busiest railway networks IRCTC website faces frequent crashes and almost carries the same laggy and outdated system for decade which just can't handle the huge traffic, almost Every morning, during tatkal ticket booking it crashes and goes offline for maintenance.

Another drawback which we face is certain tax rates for e- ticketing services resulting passengers paying more fare than usual he or she has to pay on PRS counters.

Another major issue reported are the constant ad pop-ups and not so user-friendly interface of the IRCTC website which causes lot of inconvenience to its users, almost impossible for new users and analphabetic person to understand.

The IRCTC has been always criticized for failing to maintain privacy of the data that it has collected on passengers for the purposes of bookings and travel, and there have been multiple reports of data leaks and exposures, as well as concerns that passenger information has been used by the government to send promotional content with demographic targeting.

In 2016, cyber police officials from Maharashtra reported a potential leak of personal information relating to 10 million passengers. The IRCTC denied the leak, but a committee consisting of officials from the IRCTC and Centre for Railway Information Systems (CRIS) was constituted to examine the report. IRCTC officials claimed that the reports were unfounded and that there was no leak of "sensitive" passenger data. An IRCTC official later admitted that data that IRCTC had shared with third parties, including hotel, taxi, and food delivery services, had been exposed.

In 2018, a security researcher, Avinash Jain, reported that a free travel insurance scheme offered by IRCTC, which caused users on their app to be redirected to a third-party insurer, had left the information of approximately 200,000 passengers exposed for a period of two years. IRCTC discontinued the insurance scheme and fixed the vulnerability that had left this data exposed.

In October 2020, a data breach resulted in the exposure of passenger data of more than 900,000 individuals online, including names, dates of birth, mobile numbers, marital status, residence, gender and travel information. IRCTC denied the leak. In the same month, IRCTC announced that it would be sharing passenger data with other public and private corporations with whom it worked. Railway Minister Piyush Goyal publicly stated while discussing railway disinvestment that the government was exploring ways to monetize the sale of passenger data stored with IRCTC, saying "There is huge data with the company and that is not getting captured in the valuation. We are trying to see how we can utilize that." Former Railway Minister Dinesh Trivedi has criticized this, calling it a "threat to the right of privacy."

In May 2020, the IRCTC made the use of the Government of India's COVID-19 tracker app, Aarogya Setu, mandatory, amidst concerns about the safety of data stored with the app. A government official later clarified in proceedings at the Karnataka High Court that downloading the app was optional and not mandatory.

In 2020, IRCTC officials used passenger personal data that had been provided to them to book tickets, in order to email a pamphlet titled "PM Modi and his government's special relationship with Sikhs" during the 2020–2021 Indian farmers' protests, in which they advertised the benefits of government policies to protesting Sikh farmers. More than 20 million such emails were sent without consent of the passengers between 8 December 2020 to 12 December 2020. IRCTC chief public relations officer Sidharth Singh stated that the booklet "has been sent to those with the surname 'Singh' and those who are from the Punjab region" However, IRCTC officials later denied that the pamphlet, which was shared in English, Hindi, and Punjabi, was selectively targeted at members of the Sikh community. IRCTC officials admitted that passenger booking data had been previously used without prior consent, for the purpose of promotional government messages.

SYSTEM ANALYSIS

INTRODUCTION

Purpose: The purpose of this document is to provide a comprehensive analysis of the online railway reservation system, outlining its Basic functionalities like booking and cancellation of train tickets, search trains, train schedule, seat availability etc. and its system requirements.

Scope: OR2S system is in progress and in near future with new proposal, informative reviews by passengers and advancement of technologies it will be upgraded to build more suitable, simple and seamless E-ticket booking platform with ample features to benefits its users.

Technologies: The front end of the project is made using the following languages: HTML, CSS, JavaScript. The Back-End of the project is made using the following languages: PHP, MySQL, IDE used for Front end: Sublime Text3, Visual Studio Code 2022, Web Browser GOOGLE CHROME, IDE for back end: localhost phpMyAdmin, XAMPP Server.

SYSTEM OVERVIEW

The online railway reservation system consists of the following components: User Interface: This component provides an interactive interface for users to interact with the system, search for trains, book tickets, and manages ticket reservations. Database: A database that store all the necessary information, such as train details, user profiles, and ticket reservations. Server-Side Processing: PHP handles server-side processing, including data validation, authentication, and interaction with the database. Client-Side Processing: JavaScript (JS) used for client-side processing, providing dynamic and interactive functionalities. Presentation Layer: HTML and CSS used to create the user interface and present the data to the users.

FUNCTIONAL REQUIREMENTS

User Registration: Users can be able to create accounts by providing necessary information like name, email, password, etc. User Login: Users can be able to log in to their accounts using their credentials. Train Search: Users can be able to search for trains based on criteria such as source, destination, date, and class. Ticket Booking: Users can be able to book tickets by selecting the desired trains, preferred class, and number of passengers. Ticket Cancellation: Users can be able to cancel their booked tickets by logging into their accounts using their credentials. Ticket Modification: Users can able to modify their booked tickets by changing the journey date or class. View Reservations: Users can able to view their current and past reservations on their profile. Seat Availability: Users can able to check the availability of seats on a particular train for a given date and class.

NON-FUNCTIONAL REQUIREMENTS

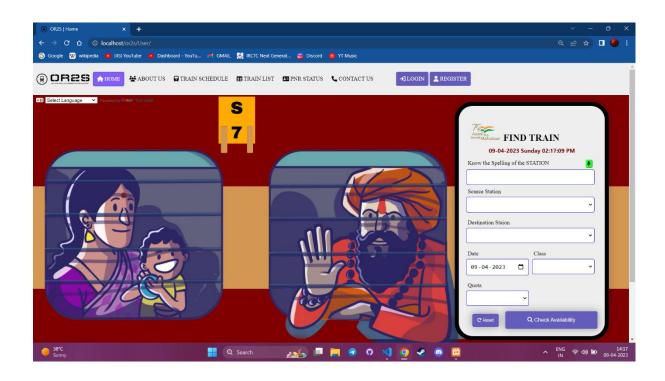
Security: OR2S system has several security measures for user authentication and to protect user data, which is vividly explained in its documentation. Performance: The system handles concurrent user requests efficiently and provide a smooth user experience. User-Friendly Interface: The user interface is intuitive, easy to navigate, and responsive. Compatibility: The system is compatible with modern web browsers and responsive on different devices.

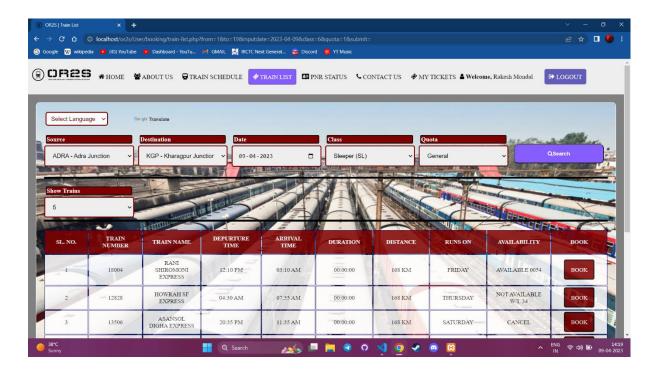
SYSTEM ARCHITECTURE

The system follows a three-tier architecture: Presentation Layer: HTML and CSS used to create the user interface and to present the data to the users. Application Layer: PHP handles the server-side processing, including data validation, authentication, and interaction with the database. Data Layer: The database store all the necessary information, such as train details, user profiles, and ticket reservations.

USER INTERFACE DESIGN

Include wireframes or mockups of the user interface to showcase the design and layout of the system.





DATABASE DESIGN

- Provide a database schema design, including tables, relationships, and attributes.



FEASIBILITY STUDY

A feasibility study is part of the initial design stage of any proposed project/plan. It is carried out to evaluate the feasibility of a proposed project or an existing software used by the business. It can assist in identifying and assessing the opportunities and threats present in the natural environment, the resources needed for the project, and the chances of success.

Well, in terms of software development, the feasibility study ensures the analysis of every small aspect of the feasibility of the proposed software or project. In this stage of the feasibility study, there are four steps of the Software Project Management Process. From a technical perspective, a feasibility study will help you analyze for multiple purposes to understand whether the software will be able to withstand the market or not. This feasibility study helps developers understand the product in the right terms from the point of view of development, implantation, the contribution of the project to the organization, etc. businesses are also free to leverage software development services from experts of the business.

In software development, the feasibility study in software engineering is one of the most time-consuming and sophisticated aspects. Here the viability of a product means the technical side of the product that is intended to develop.

As previously stated, technical feasibility investigates any technical challenges of a project. However, it is unavoidably influenced by and is dependent on the available money, deadlines, legal limits, and post-development activities (support and maintenance).

Talking about the software feasibility, specifically, it initially evaluates the ideation phase of product development, following the needs of the preliminary project –

- Business analysts' functional requirements define solution features.
- Non-functional requirements are often gathered by a software architect and are related to system attributes such as performance, scalability, and so on.

It starts with analyzing the feasibility of the proposal and is validated at the end of the day. Software analysis serves as the foundation for a business plan that describes how to get the initiative from the concept of software to bring it to reality by development. If the criteria do not meet, you must manage the client's expectations and suggest alternate methods of achieving business objectives.

TECHNICAL FEASIBILITY

Technical Feasibility analyses and evaluates the project's current resources, including hardware and software along with the technical requirements of the proposed system. In simple words, a technical feasibility study gives a report on whether there exist required resources and new technologies which will be used for proposed software development. Additionally, a technical feasibility study examines the technical skills of the software development team, the viability of using current technology, the ease of maintaining and upgrading the technology of choice, and other factors. Technical feasibility aspects, particularly in software project development must be checked because they are critical to successful delivery.

ECONOMIC FEASIBILITY

When someone wants to start a new project, the cost factor is the first thing that comes to mind. Cost does not only refer to how much money is available in the company, but also where the company can seek assistance when they are in need. Economic feasibility in terms of software development helps companies to examine the development costs and financial gains. And to be economically feasible means the cost incurred in new software development must exceed its benefits Furthermore, the total cost of the software project, including any unplanned expenses, must be known beforehand. It is critical to plan for such events at the beginning of a project.

SCHEDULING FEASIBILITY

Scheduling feasibility is a type of feasibility that helps you to set realistic deadlines and adhere to them. A thorough feasibility study cannot be conducted without extensive knowledge of finance, technology, and legislation.

LEGAL FEASIBILITY

Legal feasibility is one of the most important types of feasibility studies in project management because, even if money is abundant, each country's laws must allow the legal implementation of the project. Several other legal requirements include data protection acts, social media laws, zoning laws, and so on. Certain types of jobs are permitted in certain areas. As a result, with legal feasibility in place, prior steps can be taken after app development for any legal implications.

OPERATIONAL FEASIBILITY

Operational feasibility investigates how a new project will affect your company's daily processes, what procedures should be implemented, and what efforts should be made to keep it running. Assume you're launching a global e-commerce platform. Then, in each country, you must have local warehouses, service teams, and, in some cases, even local websites. Though the initial idea appears commercially appealing and technically feasible it is extremely difficult to realize operationally and may make no sense at all.

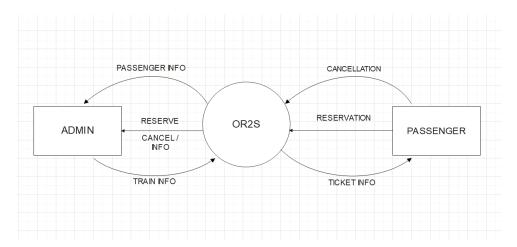
DATA FLOW DIAGRAM

Include a data flow diagram illustrating the flow of data and interactions between various components of the system. It is a graphical tool or a bubble chart that is used to analyses the system & represents the flow of data between entities, processes & data stores. We have three level of DFD: - DFD level -0, DFD level -1, DFD level-2

DFD LEVEL-0

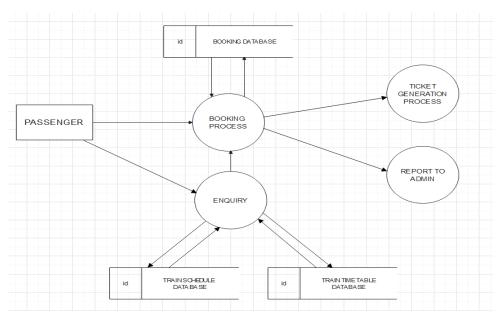
It is also known as a context diagram.

It represents the entire system as a single bubble input & output data indicated by incoming/outgoing arrows.



DFD LEVEL-1

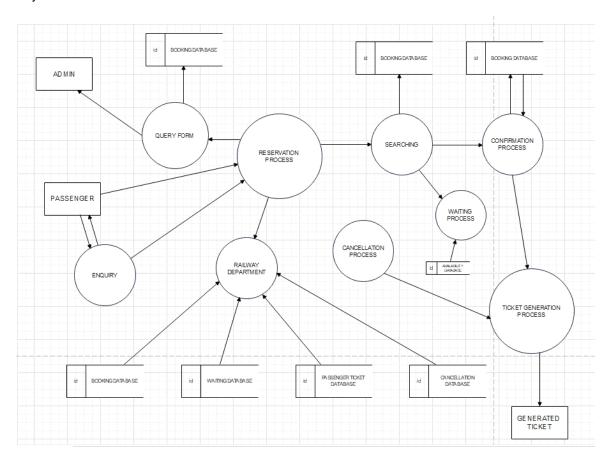
In 1-level DFD, the context diagram is decomposed into multiple bubbles or processes. Here, we breakdown the DFD Level – 0 into subprocesses & highlight the main functions of our system.



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DFD LEVEL- 2

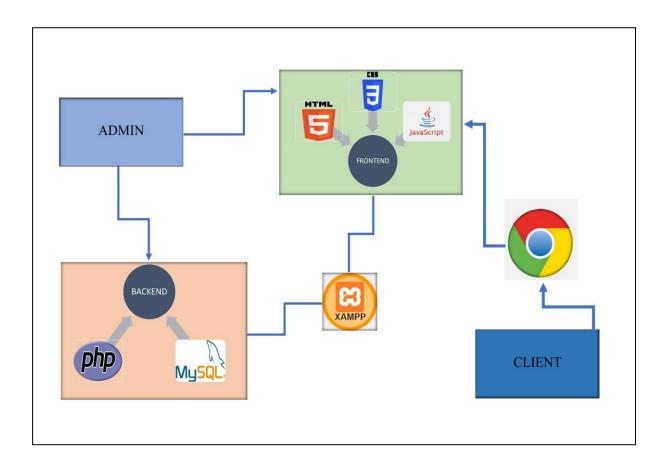
DFD level -2 is the one step deeper of DFD level -1. Using this level, we breakdown specific functionalities of our system.



PROJECT CATEGORY

WEB DEVELOPMENT

Web development refers to building website and deploying on the web. It includes aspects such as web design, web publishing, web programming, and database management. It is the creation of an application that works over the internet i.e., websites. Web development requires use of scripting languages both at the server end as well as at client end. In BACKEND We have Server [XAMPP] and DATABASE [We used, PHP and MySQL] and while as in FRONTEND we've used three major languages for three different layers of web design to make it simple & seamless such as for the STRUCTURE we've used HTML MARKUP, and for STYLE we've used CSS [Cascading Style Sheets] while, for BEHAVIOUR we've used JAVASCRIPT. Whereas client can access it through web browser [GOOGLE CHROME] and admin maintains and moderates both BACKEND and FRONTEND.



PROJECT DESCRIPTION

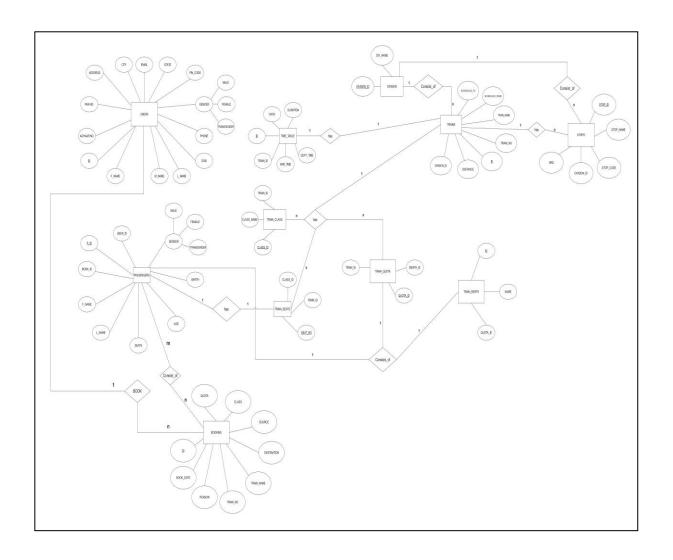
The Railway Reservation system is developed in a user-friendly & interactive way to access all features of eticketing system which is a type of incremental model. Each group develops a module which has different functionalities depending upon the user requirements. The design of this product utilizes a modular and a functional approach, where the entire code will be split up in different modules or methods and be called upon when required. The major methods of the products are, acquiring and monitoring the major issues of user while booking or any other query such as the cancellation, PNR status, live status of train and train info. The staff portal also allows the staff to login separately for the essential features that to be executed in a train travel. If there is any problem faced by user, we give contact information such that they can let us know about their problems. After the development of all the required modules, then they are combined to form the required application. In addition, with the normal functionalities the shortest path optimization is aimed to give train information which reaches through the shortest route and this helps the user to save the time and reach their given preferred destination. Keeping this in mind, an important feature of this interface is that it is non-laggy and seamless to use.

THE METHODS OF THIS PROJECT ENCOMPASS:

- 1. **ENQUIRY:** This method allows the user to search for train that is available between two travel cities namely "Departure City" and "Arrival City" as desired by the traveler. The system initially prompts the agent for these column values, the date of the journey, preferred time slot, preferred quota and the number of passengers. It then displays a list of trains available with different classes.
- 2. REGISTRATION: In this method the interface gives the user to register through two different views. One view is passenger portal and the other view is admin portal. In the passenger portal the method allows to fill up all the fields like name, phone number, address, Aadhaar Number, PAN Number & password. Then generate user id and password for further login. In the admin portal the user has to give its Indian Govt. Rail ID and its Aadhaar Number to register itself as an employee of Indian railways. Then the user can generate a user id and password for further login.
- 3. LOGIN: In this method there are two types of login portal which are given for different users trying to access the interface. The first login portal allows login of the passengers by ensuring their user id or email and the password which has been generated by the user at the time of registration. The other login portal is for the admins or the employee that are trying to access the portal for different uses. The user can simply login by the user id and the password generated at the time registration.
- 4. TICKET BOOKING: PASSENGER INFORMATION: This system asks for the passenger's details like Name (as per govt. id), Age (as per govt. id), seat preference, before the booking confirmation. Payment: One user can do the payment of the e-ticket fare by many ways. After the booking confirmation the passengers are allowed to select multiple payments methods such as BHIM UPI, credit/debit cards, net banking as well as online wallet (Paytm, PhonePe, Gpay). After the payment of the ticket the user is redirected to a page which shows the ticket. Then the user can print the ticket or save it as a PDF. While at time of the payment the interface does not deduct any service charge of 15% due to which the ticketing cost is comparatively low from different ticketing services.

- 5. **CANCELLATION:** System also allows cancellation of the already reserved ticket, which leads to the seats unreserved and allowing other users to book ticket. The refund money will be sent to the users given bank details or given online payment wallet. The cancellation charges are very minimalistic as compared to other e-ticketing services which leads the user to cancel any ticket without any hesitation.
- 6. **PNR STATUS:** PNR is the abbreviation of Passenger Name Record and it is a digital certificate allowing passengers to do online check-in or manage their bookings in a short time. The interface allows the user to check the details of their travel via PNR. The user can check whether the train is running in its scheduled time, the predicted platform number of their train via PNR. The given waiting list (W/L) or Reservation Against Cancellation (RAC) or confirmed (CNF) status can also be checked through PNR.

ER DIAGRAM



SOFTWARE ENGINEERING PARADIGM

Software paradigm refers to method and steps, which are taken while designing the software. Programming paradigm is a subset of software design paradigm which is future for other a subset of software development paradigm. Software is considered to be a collection of executable programming code, associated libraries, and documentation. Software development paradigm is also known as software engineering, all the engineering concepts pertaining to developments software applied. It consists of the four parts as: -

- Requirement Gathering.
- Software design.
- Programming.
- Software Development.

Software Engineering Paradigm is a theoretical framework that serves as a guide for the development and structure of a software system.

Now discussing about the four parts of Software Engineering Paradigm: -

- REQUIREMENT GATHERING The feasibility report is positive towards the project and next phase start
 with gathering requirement from the user. Engineer communicates with the client and end-users to know
 their idea and which features they want to software to include.
- **SOFTWARE DESIGN** It is a process to transform user requirements into a suitable form. It helps programmers in software coding. There is a need for more specific and detailed requirements in software. The output of the process can directly be used in implementation in a programming language. There are three design levels as follows: -
 - Architectural Design: It is the highest abstract version of the system. In a software system, many components interact with each other.
 - High-level Design: It focuses on how the system along with all its components and it can be implemented in form of modules.
 - Detailed design: It defines the logical structure of each module and its interface to communicate with each module.
- PROGRAMMING The major programming block of the software is handled in this stage. It is further divided into three parts: -
 - Coding: All the coding has been done in the project to fulfill all the objectives and aims of the project in this part.
 - Testing: Testing of all the written codes have been done thoroughly to find all the bugs and errors.
 - Debugging: Fixing the errors and bugs to give the user a seamless and bug free software.
 - **SOFTWARE DEVELOPMENT** When all the above three parts of the software has been completed then the final product will be deployed, and further new features would be done by future updates.

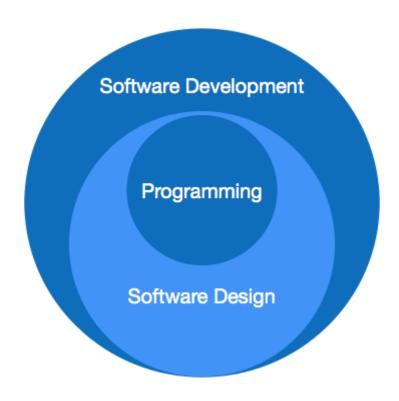


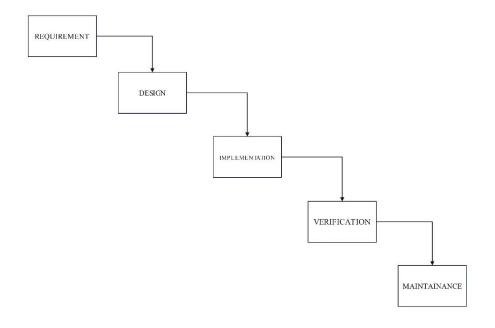
Fig: - Software Paradigm Diagram

THE SOFTWARE DEVELOPMENT LIFE CYCLE (SDLC)

SDLC is a process that software developers use to plan, design, develop, test, deploy, and maintain software systems. Every activity has a life cycle and software development process is not an exception for the same. Even if you are not aware of SDLC you still must be following it unknowingly. But if a software professional is aware about SDLC he can execute the project in a much-controlled fashion. One of the big benefits of this awareness is that hot blooded developers will not start directly execution (coding) which can really lead to project running in an uncontrolled fashion. Second it helps customer and software professional to avoid confusion by anticipating the problems and issues before hand. In short SDLC defines the various stages in a software life cycle. But before we try to understand what SDLC is all about, we need to get a broader view of the start and end of SDLC. Any project started if it does not have a start and end then its already in trouble. It's like if you go out for a drive you should know where to start and where to end or else you are moving around endlessly. There are several models in SDLC:

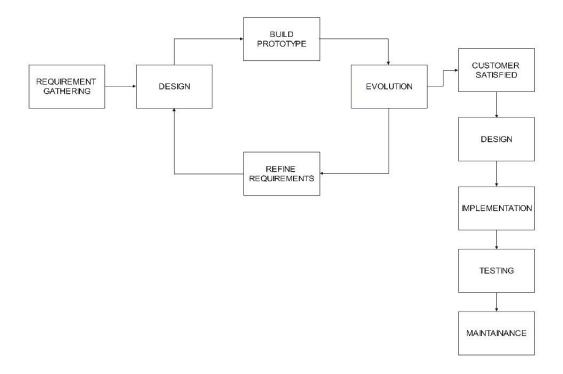
WATERFALL MODEL

It is the most important model of SDLC. This model contains 5 phases. One can move to next phase only when the previous phase has been completed. This model is just like the real waterfall in which one cannot go to the previous phase after advancing. Here is the diagram of the Waterfall Model.



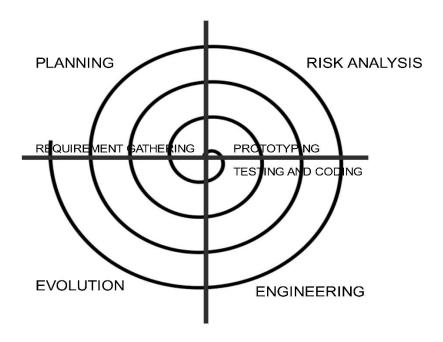
PROTOTYPE MODEL

This model is also known as Prototyping Model. Before developing a software, one need to build a prototype of the software. Prototype Model or Prototyping Model is made to remove the mistakes of the waterfall model. Here is the diagram of the Prototype Model.



SPIRAL MODEL

This model is divided into four stages which consist of planning about the achievement and goals of the software, risk analysis about all the problems, developing all the structures of the software and evolution from the end user & customer. Here is the diagram of the Spiral Model.



The best model for our software project is **Iterative Model** which is the combination of Spiral Model and Waterfall Model. Here is the diagram of the Software Engineering Diagram of Online Railway Reservation System (OR2S).

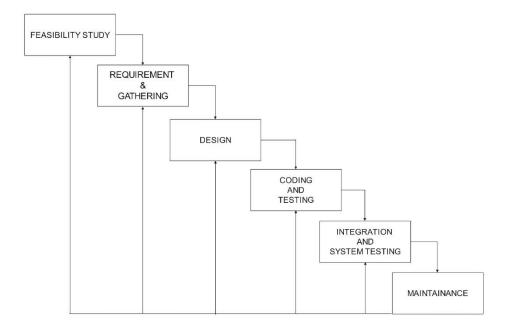


Fig: Software Engineering diagram of OR2S

In this above diagram we had started from the feasibility study of the software which we are making. Then we've gathered all the information that are required for building the Online Railway reservation System, such as number of trains in the specified division, all the stations situated in the division, the arrival time and departure time of the trains, the time schedule of trains and the given fare by Indian Railways. Then we've designed the interface of the software in minimalistic as well as user-friendly way so that anybody can use it without any hassle. Then we've done all the front-end coding in languages like HTML, CSS and Java Script. The back-end coding has been done in php and MySQL. We've used local host server (XAMPP) for Testing it in web browser. Then the software has been tested in different systems and different browsers and it has been integrated to check whether all features are linked to each other the way it should be. Maintenance and new features of the software will be introduced to the user in forms of future updates. Hence, the conclusion of this model is that one can go back to the previous step alike from Waterfall Model and completion of all the phases are not mandatory alike from Spiral Model. The advantage of this approach is that it will result in better testing, as testing of each increment is easier than testing the entire system in totality. Furthermore, this approach provided us with important feedback that was very useful in the implementation of the system.

USE CASE DIAGRAM

A use case diagram is used to represent the dynamic behavior of a system. It encapsulates the system's functionality by incorporating use cases, actors, and their relationships. It models the tasks, services, and functions required by a system/subsystem of an application. It depicts the high-level functionality of a system and also tells how the user handles a system.

PURPOSE OF USE CASE DIAGRAMS

The main purpose of a use case diagram is to portray the dynamic aspect of a system. It accumulates the system's requirement, which includes both internal as well as external influences. It invokes persons, use cases, and several things that invoke the actors and elements accountable for the implementation of use case diagrams. It represents how an entity from the external environment can interact with a part of the system. Following are the purposes of a use case diagram given below:

- It gathers the system's needs.
- It depicts the external view of the system.
- It recognizes the internal as well as external factors that influence the system.
- It represents the interaction between the actors.

HERE IS THE USE CASE DIAGRAM OF ONLINE RAILWAY RESERVATION SYSTEM (OR2S)

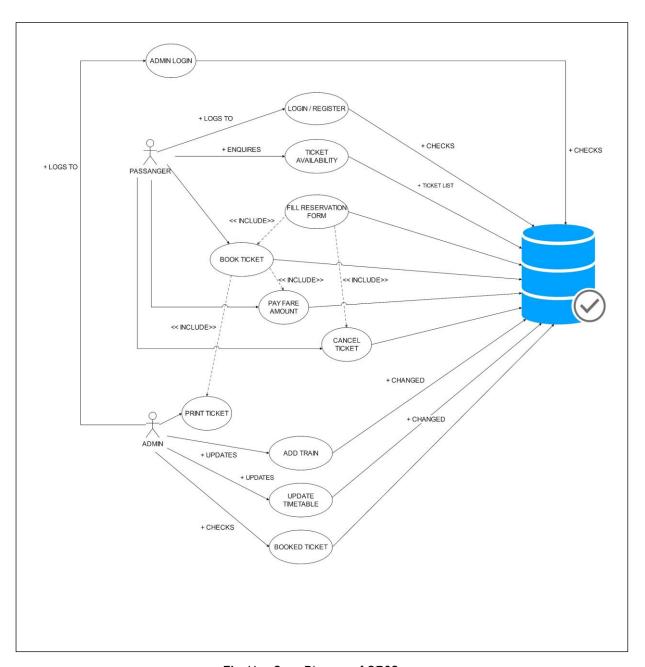


Fig: Use Case Diagram of OR2S

ADVANTAGES OF USING A SOFTWARE PARADIGM:

- Provide a consistent structure for developing software systems.
- Help developers understand the problem they are trying to solve.
- Help developers design and implement solutions more effectively.
- Help developers organize and reuse code more efficiently.
- Help developers create more reliable and maintainable software.

DISADVANTAGES OF USING A SOFTWARE PARADIGM:

- Can be difficult to learn and understand for new developers.
- Can be limiting if a problem does not fit well into a specific paradigm.
- Can make it difficult to integrate systems developed using different paradigms.
- Can make it difficult to adapt to new technologies or changing requirements.

SOFTWARE AND HARDWARE REQUIREMENT SPECIFICATIONS

Hardware Specification: Processor: 12th Gen Intel(R) Core (TM) i5-12500H 3.10 GHz, Installed RAM: 16.0 GB (15.7 GB usable), Operating System: Windows 11 Home Single Language

Software Specification:

The front end of the project is made using the following languages:

- HTML
- CSS
- JavaScript

The Back-End of the project is made using the following languages:

- PHP
- MySQL

IDE used for Front end:

- Sublime Text3
- Visual Studio Code 2022
- Web Browser GOOGLE CHROME

IDE for back end:

- localhost phpmyadmin
- XAMPP Server

SYSTEM SECURITY MEASURES

Security is a critical aspect of any online system, including our Online Railway Reservation System [OR2S]. Here are some security measures that can be implemented to ensure the security of the system:

- AUTHENTICATION AND AUTHORIZATION The system should have a robust authentication mechanism
 that verifies the user's identity before allowing access to the system. Authorization mechanisms should be in
 place to control access to different parts of the system based on the user's role and privileges.
- HUMAN IDENTIFICATION reCAPTCHA is a free service from Google that helps protect websites from spam and abuse. A "CAPTCHA" is a turing test to tell human and bots apart. It is easy for humans to solve, but hard for "bots" and other malicious software to figure out. By adding reCAPTCHA to a site, you can block automated software while helping your welcome users to enter with ease.
- **ENCRYPTION** All sensitive data, such as passwords, credit card details, and personal information, should be encrypted to prevent unauthorized access.
- **INPUT VALIDATION** All user input, such as search queries and form submissions, should be validated to prevent injection attacks, such as SQL injection and cross-site scripting (XSS).
- REGULAR UPDATES AND PATCHES The system should be regularly updated with the latest security patches and updates to address any vulnerabilities.
- BACKUP AND RECOVERY Regular backups should be taken to ensure that data is not lost in case of any
 system failure or security breach. The system should have a robust recovery mechanism in place to recover
 from any system failure.
- **LOGGING AND MONITORING** The system should log all user activity, including login attempts and transactions, and monitor the system for any suspicious activity. This will help in detecting any security breaches and take appropriate action.

These security measures, if implemented correctly, can help in ensuring the security of an online railway reservation system project.

COST ESTIMATION OF OUR PROJECT

Estimating the cost of our Online Railway Reservation System [OR2S] would depend on various factors such as the complexity of the system, the scope of the project, the size of the development team, and the technologies used.

Here are some cost components that you may need to consider

TECHNOLOGY STACK The cost of licenses or subscriptions for any software development tools, frameworks, libraries, and hosting services used to build and deploy the system.

INFRASTRUCTURE The cost of servers, storage, and networking equipment needed to host the system.

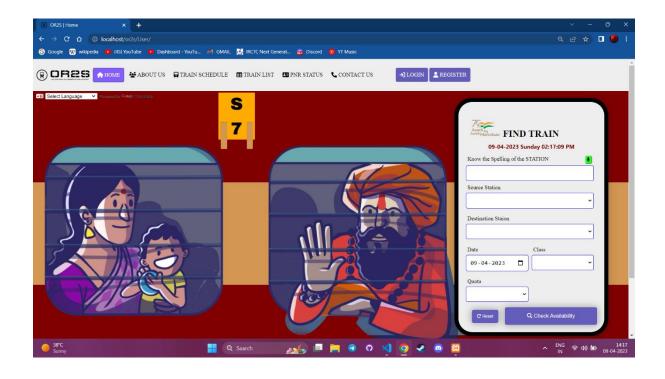
INTEGRATION The cost of integrating the system with other third-party services, such as payment gateways, email providers, and analytics tools.

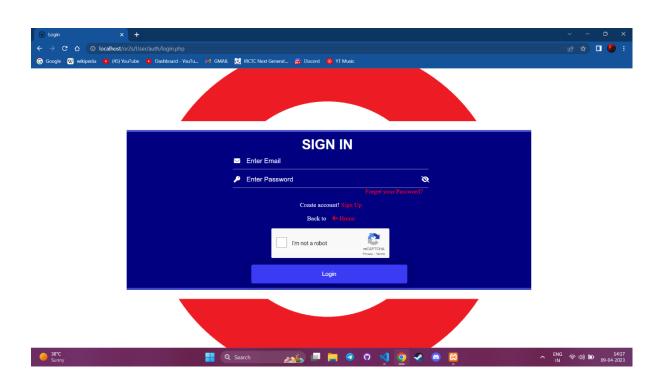
MAINTENANCE AND SUPPORT The ongoing cost of maintaining and updating the system to ensure it remains functional and secure.

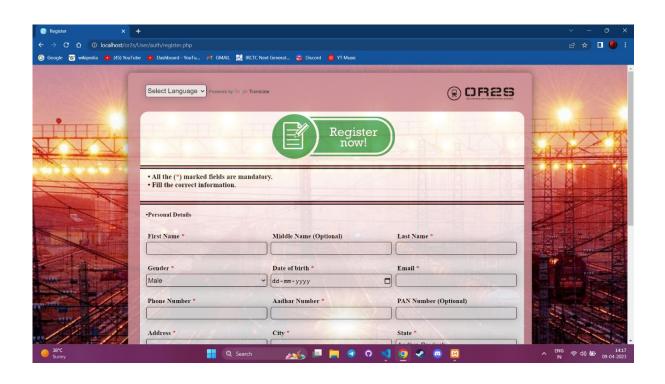
PROJECT MANAGEMENT The cost of managing the project, including planning, communication, and risk management.

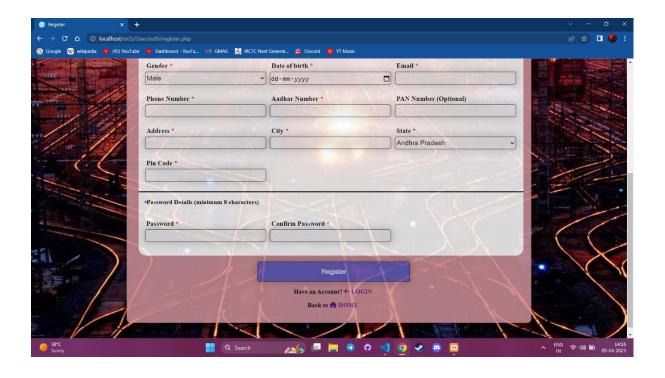
Based on the above cost components, a rough estimate for an online railway reservation system. However, the actual cost would depend on the specific requirements and scope of the project.

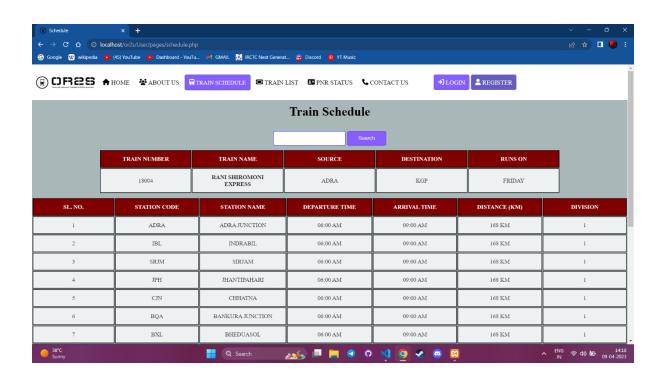
REPORT

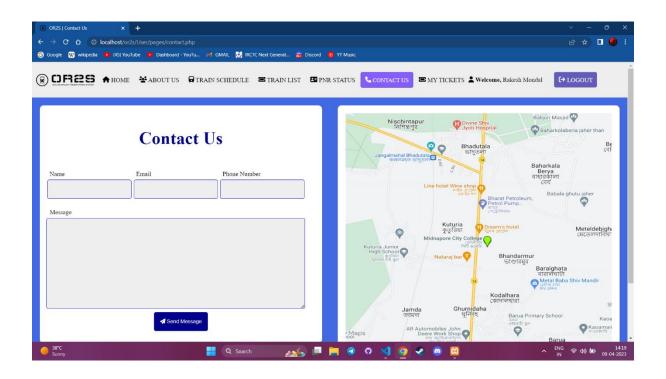


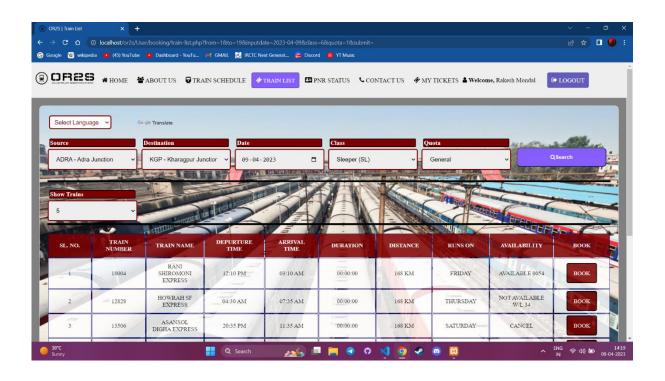


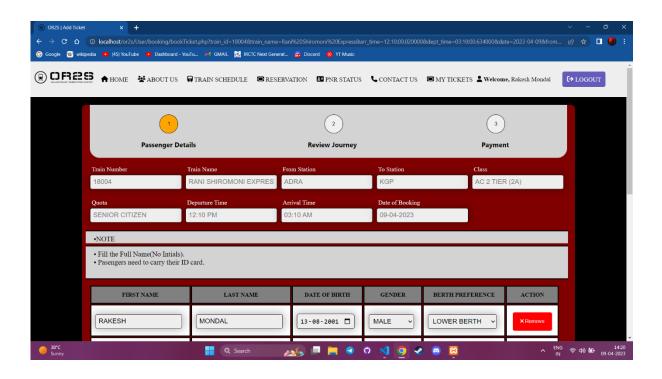


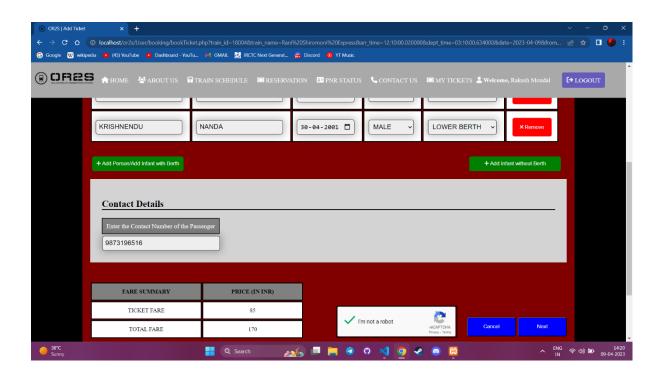


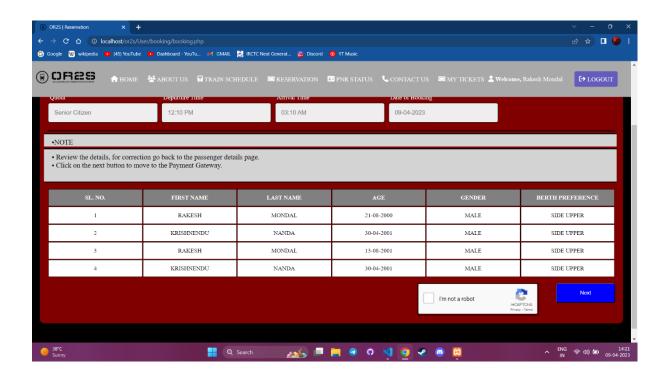


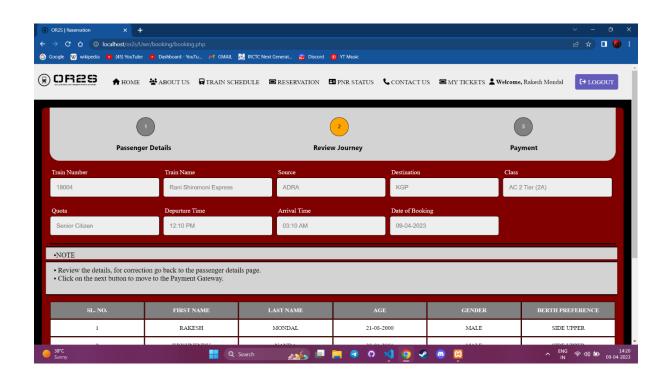


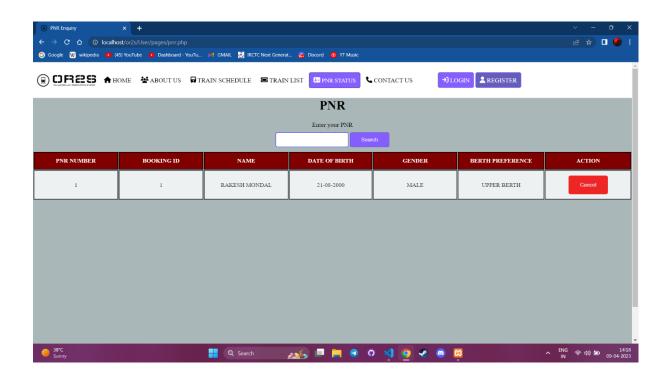


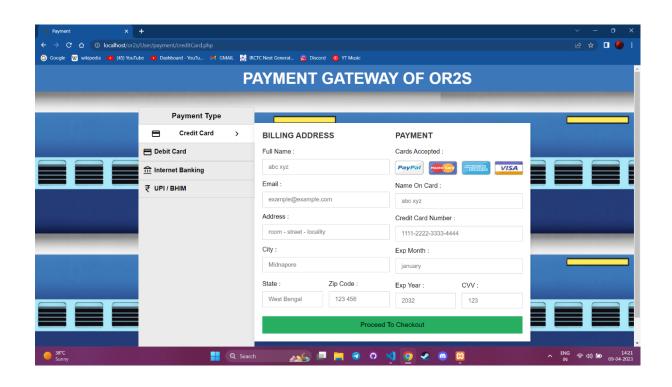


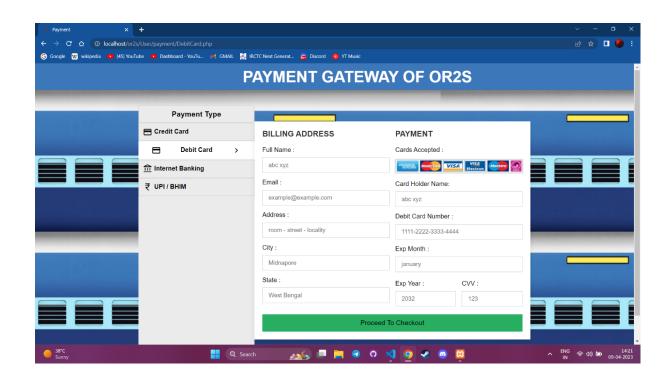


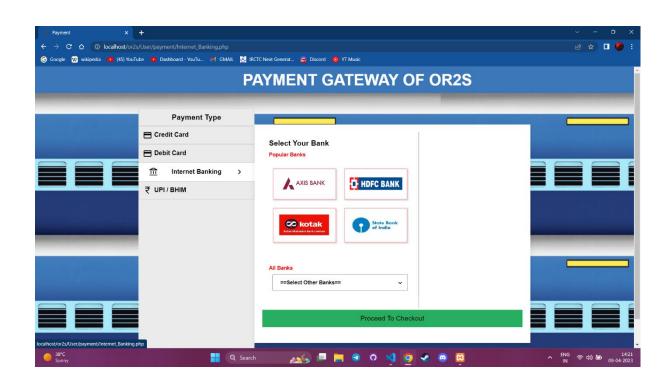


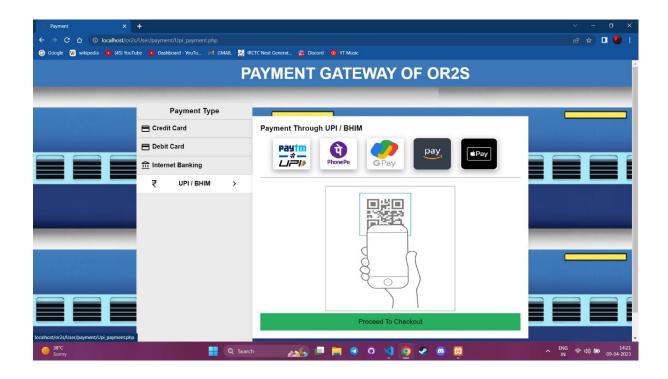


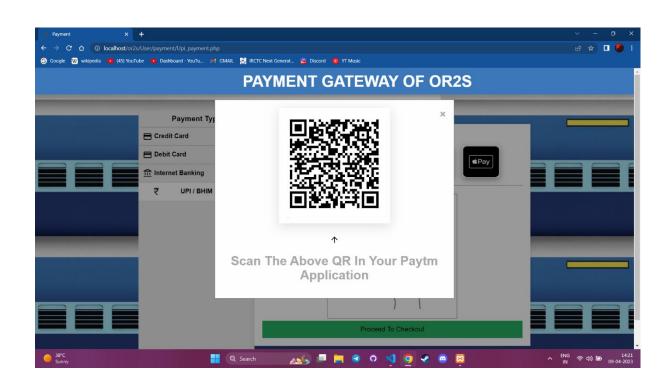


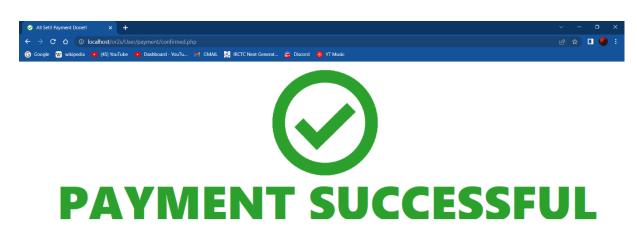








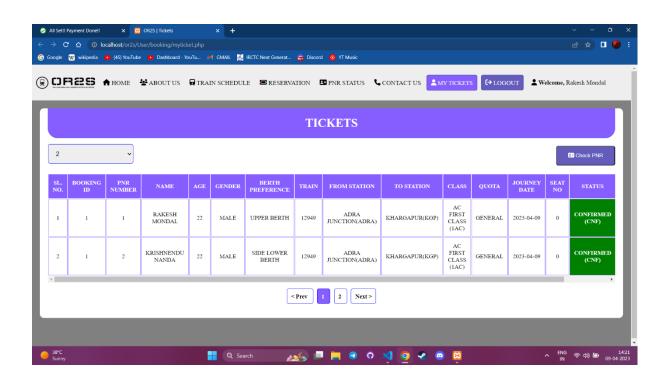


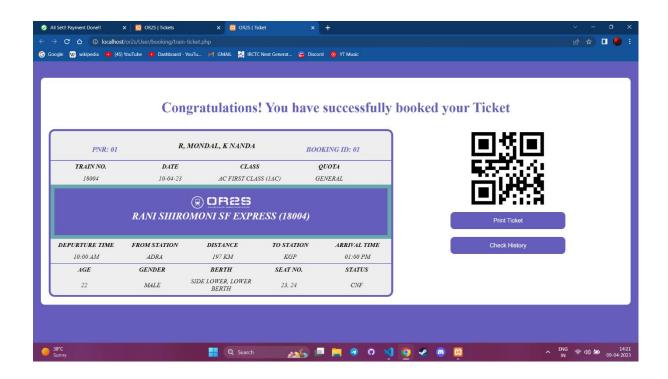


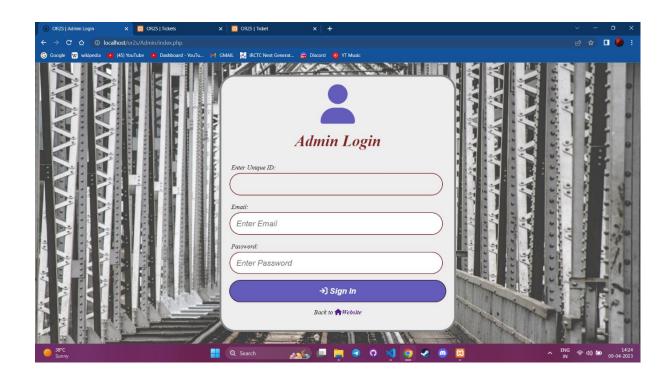
THANK YOU! YOUR PAYMENT IS COMPLETE

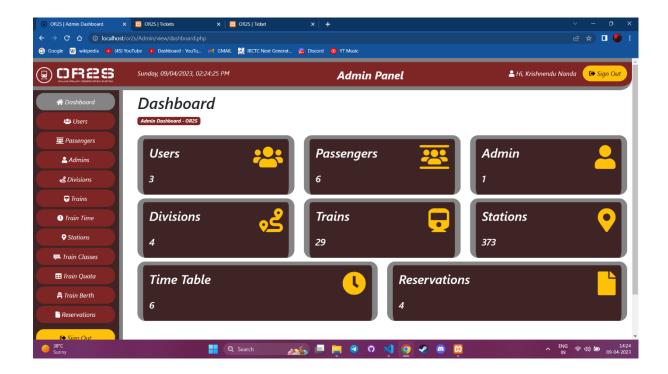


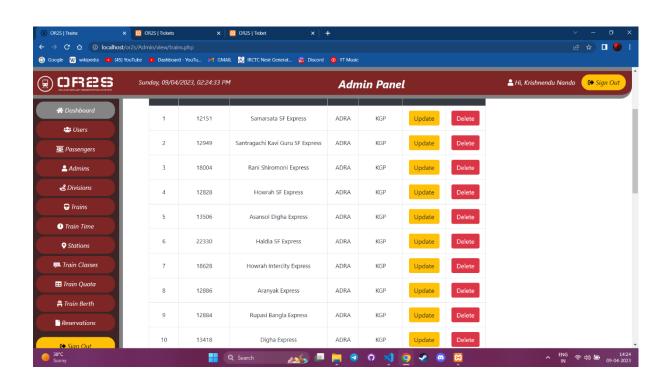


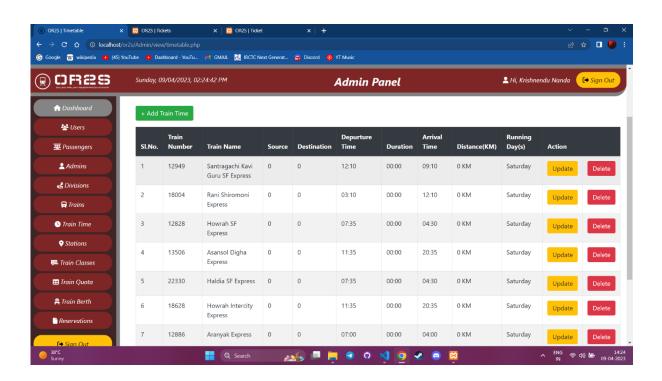








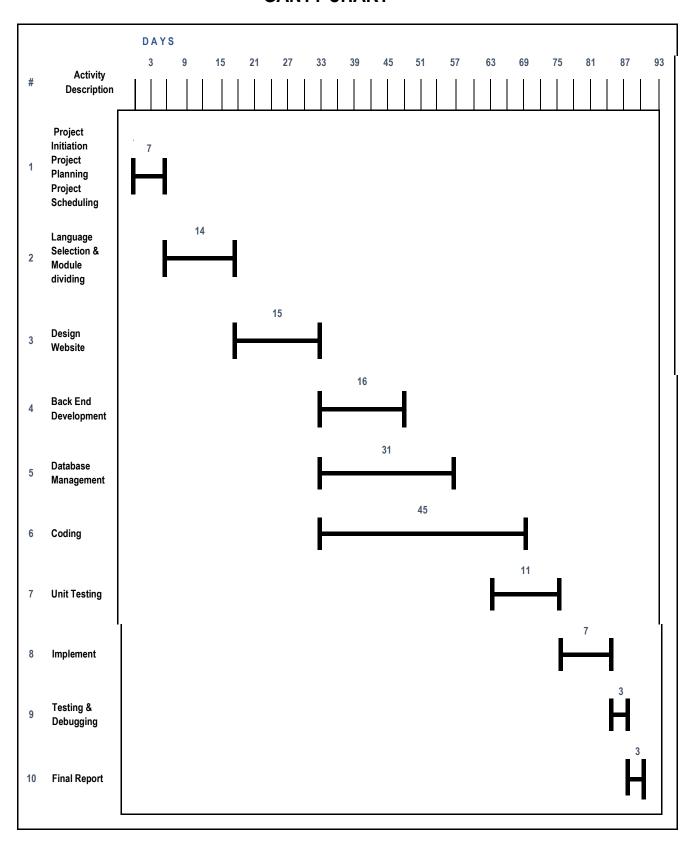




PROJECT SCHEDULE

#	Activity Description	Planned Date	Actual Date	Budgeted Days	Status
1.	Project Initiation Project Planning Project Scheduling	01.01.2023	20.04.2023	7	Done
2.	Language Selection	21.04.2023	04.05.2023	14	Done
3.	Designing Website	05.05.2023	19.05.2023	15	Done
4.	Back End Development	20.05.2023	04.06.2023	16	Done
5.	Database Management	05.06.2023	05.07.2023	31	Done
6.	Coding	06.07.2023	18.08.2023	45	Done
7.	Unit Testing	19.08.2023	29.08.2023	11	Done
8.	Implementation	30.08.2023	05.09.2023	7	Done
9.	Testing & Debugging	06.09.2023	08.09.2023	3	Done
10.	Final Report	19.09.2023	21.09.2023	3	Done

GANTT CHART



SCOPE OF FUTURE APPLICATION

By informative reviews from the passengers and detailed evaluation of the major drawbacks of the IRCTC website, we were opted to build our own project with a view point to overcome those in our project Online Railway Reservation System, we have stored all the information about the scheduled reserved trains running through South Eastern zone of Indian Railways. We kept all the records of passengers booked tickets and their relative information within our database to facilitate certain queries about status of trains, seats and Passenger Name Record (PNR) etc. at an instance. It provides all essential E-Ticket services at a user's fingertip avoiding all the hassle and inconveniences of going to railway station for each and every query. As we are going through the era of DIGITAL INDIA - The flagship program of the Government of India with a vision to transform India into a digitally empowered society, which opens up the door to incredible innovations. This interface is in progress and in near future with new proposals and advancement of technologies it can be upgraded to build more suitable, simple and seamless E-ticket Booking platform with ample features to benefit its users.

CONCLUSION

Rather than designing manually we have made use of computer as once that data's are input it performs accurate function. There is no chance of fault or miscalculation if the data are feeded correctly. Use of the computers has solved many problems, which are faced while manual calculation. This is not the end but beginning of the versatile, efficient and outsourcing railway reservation system. This is the one which is compatible to all operating system. By making this project we made a small footstep towards the path of progress of platform independent railway reservation system.

BIBLIOGRAPHY

PROJECT PLANNING AND DESIGN OF PROJECT

- System Analysis and Design, Elias M. Award.
- System Analysis & Design by Igor Hawryszkiewycz.
- Software Engineering, Roger Preisman
- Software Engineering, Rajib Mal
- Object Oriented Software Engineering, Berned Bruegel

DATABASE DESIGN

- Database System Concepts" by Abraham Silberschatz and S Sudarshan
- Introduction to Database Management Systems" by Kahate
- An Introduction to Database Systems" by Bipin Desai
- Fundamentals of Database Systems" by R Elmasri and S Navathe
- Fundamentals of Database System" by Elmasri Ramez and Navathe Shamkant

MAIN PROGRAMMING CONCEPT

- Full Stack Web Development for Beginners: Learn Ecommerce Web Development Using HTML5, CSS3, Bootstrap, JavaScript, MySQL, and PHP Paperback
- Learning PHP, MySQL & JavaScript by Robin Nixon
- PHP and MySQL Web Development by Luke Welling

WEBSITE

- www.w3school.com
- www.tutorialspoint.com
- www.creatly.com
- http://www.howtoforge.com

CODING INDEX PAGE

```
<?php
session_start();
include("./db/connection.php");
include("./db/functions.php");
echo "k rel='stylesheet' type='text/css' href='./css/header.css' />";
echo "k rel='stylesheet' type='text/css' href='./css/style.css' />";
  $user_data = [];
  if(isset($_SESSION['id'])){
     $query = "select f_name,I_name from users where id = ".$_SESSION['id'];
     $result = mysqli_query($con, $query);
     if($result){
       if($result && mysqli_num_rows($result) > 0){
         $user_data = mysqli_fetch_assoc($result);
       }
    }
  }
<?php include("./header.php"); ?>
  <main>
     <section class="banner homelmage">
     <div class="form-container">
       <form action="/or2s/User/booking/train-list.php" method="GET">
          <h3><i class="fa fa-road"></i> Find Train <i class="fa fa-train"></i> </h3>
          <div style="">
            <?php
               date_default_timezone_set('Asia/Kolkata');
               echo date('d-m-Y'." ".'l'." ".'h:i:s A');
            ?>
          </div>
          <div class="form-group">
            <div class="row">
               <div class="column">
                 <label for="from">From Station</label>
                 <?php
                    $query = "select ord, stop code, stop name from stops";
                    $from = mysqli_query($con,$query);
                 <select class="form-select select1" id="from" name="from" placeholder="From" required>
                 <option value="" disabled selected></option>
```

```
<?php
                   if(mysgli num rows($from) > 0){
                      while($row = mysqli fetch array($from)){
                 ?>
                    <option value="<?php echo $row['ord'];?>"><?php echo $row['stop code'];?> - <?php echo</pre>
$row['stop name'];?></option>
                 <?php
                 ?>
                 </select>
                 <?php
                   }
                 ?>
               </div>
               <div class="column">
                 <label for="to">To Staion</label>
                 <?php
                    $query = "select ord,stop_code,stop_name from stops";
                    $to = mysqli_query($con,$query);
                 ?>
                 <select class="form-select select2" id="to" name="to" placeholder="To" required>
                 <option value="" disabled selected></option>
                 <?php
                   if(mysqli_num_rows($to) > 0){
                      while($row = mysqli_fetch_array($to)){
                 ?>
                    <option value="<?php echo $row['ord'];?>" ><?php echo $row['stop_code'];?> - <?php echo</pre>
$row['stop_name'];?></option>
                 <?php
                 ?>
                 </select>
                 <?php
                   }
                 ?>
               </div>
            </div>
            <div class="row">
              <div class="column" style="width: 50%;">
                 <label for="date">Date</label>
                 <input type="date" value="<?php echo date('Y-m-d'); ?>" id="date" name="date" required>
               <div class="column" style="width: 50%;">
                 <label for="class">Class</label>
                 <?php
                   $query = "select class_id,class_name from train_class limit 8";
                   $result = mysqli_query($con,$query);
                 ?>
```

```
<select class="form-select" id="class" name="class" placeholder="class" required>
                 <option value="" disabled selected></option>
                 <?php
                   if(mysqli_num_rows($result) > 0){
                      while($row = mysqli fetch array($result)){
                 ?>
                   <option value="<?php echo $row['class_id'];?>"><?php echo $row['class_name'];?></option>
                 <?php
                      }
                 ?>
                 </select>
                 <?php
                   }
                 ?>
              </div>
            </div>
            <div class="row">
              <div class="column" style="width: 50%;">
                 <label for="quota">Quota</label>
                 <?php
                   $query = "select quota_id,quota_name from train_quota limit 6";
                   $result = mysqli_query($con,$query);
                 ?>
                 <select class="form-select" id="quota" name="quota" placeholder="quota" required>
                 <option value="" disabled selected></option>
                 <?php
                   if(mysqli_num_rows($result) > 0){
                      while($row = mysqli_fetch_array($result)){
                 ?>
                   <option value="<?php echo $row['quota_id'];?>"><?php echo</pre>
$row['quota_name'];?></option>
                 <?php
                      }
                 ?>
                 </select>
                 <?php
                   }
                 ?>
              </div>
            </div>
         </div>
         <button style="width: 100%;" type="submit" id="searchBtn" name="submit" class="form-btn">
            <i class="fa fa-search"></i> Check Availability
         </button>
       </form>
    </div>
```

```
</section>
  </main>
<?php include("footer.php"); ?>
<script src="js/jquery.min.js"></script>
<script type="text/javascript">
  window.onscroll = function() {myFunction()};
  var header = document.getElementById("myHeader");
  var sticky = header.offsetTop;
  function myFunction() {
   if (window.pageYOffset > sticky) {
    header.classList.add("sticky");
   } else {
    header.classList.remove("sticky");
   }
  }
</script>
```

HEADER

```
<!DOCTYPE html>
<html>
<head>
  <meta charset="utf-8">
  <meta name="description" content="Online Railway Reservation System">
  <meta name="keywords" content="HTML, CSS, JavaScript, PHP, MySQL">
  <meta name="viewport" content="width=device-width, initial-scale=1">
  <title>OR2S | Home</title>
  k re/="icon" type="image/x-icon" href="/or2s/User/images/logo/favicon.png">
  link re/="stylesheet" type="text/css" href="css/style.css">
  </head>
<body>
  <header class="header">
    <div class="header" id="myHeader">
      <span class="logo" style="margin-top: 20px;"><a href="index.php">
        <img src="/or2s/User/images/logo/or2s_black.png" width="150px">
      </a></span>
      <div class="menu">
        <a href="index.php" class="active"><i class="fa fa-home"></i> HOME</a>
          <a href="pages/about.php"><i class="fa fa-users"></i> ABOUT US</a>
          <a href="pages/schedule.php"><i class="fa fa-train"></i> TRAIN SCHEDULE</a>
          <a href="index.php"><i class="fa fa-table"></i> TRAIN LIST</a>
          <a href="pages/pnr.php"><i class="fa fa-address-card"></i> PNR STATUS</a>
          <a href="pages/contact.php"><i class="fa fa-phone"></i> CONTACT US</a>
          class="user">
             <?php
            if(isset($user_data['f_name'])) {
              echo '<a href="/or2s/User/booking/myticket.php" class=""><i class="fa fa-ticket"></i> MY
TICKETS</a>i><i class="fa fa-user"></i><b> Welcome, </b>'.$user_data['f_name'].'
'.$user_data['l_name'].'';
             ?>
          <div class="logoutbtn">
             <a href="/or2s/User/auth/logout.php" class="logout"><i class="fa fa-sign-out"></i>
LOGOUT</a>
          </div>
          <?php }else { ?>
             <div class="button">
```

```
<a href="auth/login.php" class="login"><i class="fa fa-sign-in"></i> LOGIN</a>
                <a href="auth/register.php" class="register"><i class="fa fa-user"></i> REGISTER</a>
             </div>
           <?php } ?>
         </div>
    </div>
  </header>
Footer
<footer>
  <div>
    <div class="footer-bottom">
       OR2S | © 2023 | All Rights Reserved | Developed by <a href="/or2s/user">NANDA</a>
    </div>
  </div>
</footer>
</body>
</html>
Connection of Database
<?php
$dbhost = "localhost";
$dbuser = "root";
$dbpass = "";
$dbname = "or2s";
if(!$con = mysqli_connect($dbhost,$dbuser,$dbpass,$dbname)){
  die("failed to connect!");
}
?>
Login Page
<?php
session_start();
include("../db/connection.php");
include("../db/functions.php");
if($_SERVER['REQUEST_METHOD'] == "POST"){
  $email = $_POST['email'];
  $password = $_POST['password'];
```

```
if(!empty($email) && !empty($password) && !is_numeric($email)){
     $query = "select * from users where email = '$email'";
     $result = mysqli query($con, $query);
     if($result){
       if($result && mysqli_num_rows($result) > 0){
         $user_data = mysqli_fetch_assoc($result);
         if($user_data['password'] == md5($password)){
            $_SESSION['id'] = $user_data['id'];
            header("Location: /or2s/User/index.php");
            die;
         }
       }
     echo "Wrong User Name & Password";
     echo "Wrong User Name & Password";
  }
}
?>
<!DOCTYPE html>
<html>
<head>
  <meta charset="utf-8">
  <meta name="viewport" content="width=device-width, initial-scale=1">
  <title>Login</title>
  k rel="stylesheet" type="text/css" href="./css/login.css" />
</head>
<body>
  <div class="form-container">
       <form action="" method="POST">
          <h3>Sign In</h3>
          <div class="form-group">
            <div class="row">
               <div class="column">
                 <label for="email">Email</label>
                 <input type="email" id="email" name="email" placeholder="Enter Email" required>
              </div>
```

```
</div>
           <div class="row">
              <div class="column">
                <label for="password">Password</label>
                <input type="password" id="password" name="password" placeholder="Enter Password"
required>
              </div>
           </div>
           <div class="row">
              <span class="forget"><a href="./forget-password.php">Forget your Password?</a></span>
           </div>
         </div>
         <input type="submit" id="login" value="login" class="form-btn form-space">
         Create account!<a href="./register.php"> Sign Up</a>
         Back to<a href="../index.php"><i class="fa fa-arrow-left"></i> Home</a>
       </form>
  </div>
</body>
</html>
```

REGISTER PAGE

```
<?php
session start();
include("../db/connection.php");
include("../db/functions.php");
if($ SERVER['REQUEST METHOD'] == "POST"){
  $f_name = $_POST['f_name'];
  $m_name = $_POST['m_name'];
  $I name = $ POST['I name'];
  $gender = $_POST['gender'];
  $date_of_birth = $_POST['date_of_birth'];
  $email = $_POST['email'];
  $phone = $_POST['phone'];
  $aadhar = $_POST['aadhar'];
  $pan = $_POST['pan'];
  $address = $_POST['address'];
  $city = $_POST['city'];
  $state = $_POST['state'];
  $pin_code = $_POST['pin_code'];
  $password = md5($_POST['password']);
  $confirm = md5($_POST['confirm']);
  if(!empty($email) && !empty($password) && !is_numeric($email) && ($password === $confirm)){
     suser id = random num(10);
     $query = "insert into users
(f_name,m_name,l_name,password,gender,date_of_birth,email,phone,aadhar,pan,address,city,state,pin_code)
('$f_name', '$m_name', '$l_name', '$password', '$gender', '$date_of_birth', '$email', '$phone', '$aadhar', '$pan', '$addres
s','$city','$state','$pin_code')";
     mysqli_query($con, $query);
     header("Location: ./login.php");
     die;
  }else if($password != $confirm){
     echo '<script>alert("Please check password before submit!!")</script>';
  }else{
     echo '<script>alert("Please input your valid information.")</script>';
}
?>
<!DOCTYPE html>
<html>
<head>
  <meta charset="utf-8">
  <meta name="viewport" content="width=device-width, initial-scale=1">
```

```
<title>Register</title>
  link rel="stylesheet" type="text/css" href="./css/register.css" />
</head>
<body>
  <div class="form-container">
    <form action="" method="POST">
       <h3>Register</h3>
       <div class="form-group">
         <div class="row">
            <div class="column">
              <label for="f name">First Name<b>&nbsp;*</b></label>
              <input type="name" id="f_name" name="f_name" required>
            </div>
            <div class="column">
              <label for="m name">Middle Name</label>
              <input type="name" id="m_name" name="m_name">
            </div>
            <div class="column">
              <label for="I_name">Last Name<b>&nbsp;*</b></label>
              <input type="name" id="l_name" name="l_name" required>
            </div>
         </div>
         <div class="row">
           <div class="column">
              <label for="gender">Gender<b>&nbsp;*</b></label>
              <select name="gender" id="gender" class="form-select" required>
                <option value="1">Male
                <option value="2">Female</option>
              </select>
            </div>
            <div class="column">
              <label for="date_of_birth">Date of birth<b>&nbsp;*</b></label>
              <input type="date" id="date_of_birth" name="date_of_birth" required>
            </div>
            <div class="column">
              <label for="email">Email<b>&nbsp;*</b></label>
              <input type="email" id="email" name="email" required>
           </div>
         </div>
         <div class="row">
           <div class="column">
              <label for="phone">Phone Number<b>&nbsp;*</b></label>
              <input type="number" id="phone" name="phone" maxlength="10" required>
            </div>
           <div class="column">
              <label for="aadhar">Aadhar Number<b>&nbsp;*</b></label>
```

```
<input type="number" id="aadhar" name="aadhar" maxlength="12" required>
           </div>
           <div class="column">
              <label for="pan">PAN Number<b>&nbsp;*</b></label>
              <input style="text-transform:uppercase;" type="text" id="pan" name="pan" maxlength="10"</pre>
required>
           </div>
         </div>
         <div class="row">
           <div class="column">
              <label for="address">Address<b>&nbsp;*</b></label>
              <input type="name" id="address" name="address" required>
           </div>
           <div class="column">
              <label for="city">City<b>&nbsp;*</b></label>
              <input type="name" id="city" name="city" required>
           </div>
           <div class="column">
              <label for="state">State<b>&nbsp;*</b></label>
              <select name="state" id="state" class="form-select" required>
                <option value="1">Andhra Pradesh/option>
                <option value="2">Arunachal Pradesh/option>
                <option value="3">Assam</option>
                <option value="4">Bihar</option>
                <option value="5">Chhattisgarh</option>
                <option value="6">Goa</option>
                <option value="7">Gujrat</option>
                <option value="8">Harvana</option>
                <option value="9">Himachal Pradesh
                <option value="10">Jharkhand</option>
                <option value="11">Karnataka</option>
                <option value="12">Kerala</option>
                <option value="13">Madhya Pradesh
                <option value="14">Maharastra/option>
                <option value="15">Manipur</option>
                <option value="16">Meghalaya</option>
                <option value="17">Mizoram</option>
                <option value="18">Nagaland
                <option value="19">Odisha</option>
                <option value="20">Punjab</option>
                <option value="21">Rajasthan</option>
                <option value="22">Sikkim</option>
                <option value="23">Tamil Nadu</option>
                <option value="24">Telengana</option>
                <option value="25">Tripura</option>
                <option value="26">Uttarakhand/option>
```

<option value="27">Uttar Pradesh/option>

```
<option value="28">West Bengal
              </select>
            </div>
         </div>
         <div class="row">
            <div class="column">
              <label for="pin_code">Pin Code<b>&nbsp;*</b></label>
              <input type="number" id="pin_code" name="pin_code" maxlength="6" required>
            </div>
            <div class="column">
              <label for="password">Password<b>&nbsp;*</b></label>
              <input type="password" id="password" name="password" required>
            </div>
            <div class="column">
              <label for="confirm">Confirm Password<b>&nbsp;*</b></label>
              <input type="password" id="confirm" name="confirm" required>
            </div>
         </div>
       </div>
       <center><input type="submit" id="login" value="Register" class="form-btn form-space"></center>
       Have a Account?<a href="./login.php"><i class="fa fa-arrow-left"></i> Login</a>
       Back to<a href="../index.php"><i class="fa fa-arrow-left"></i> HOME</a>
    </form>
  </div>
  <script type="text/javascript" src="./js/register.js"></script>
</body>
</html>
Logout Page
<?php
session_start();
if(isset($_SESSION['id'])){
  unset($_SESSION['id']);
header("Location: ../index.php");
die:
Contact Us Page
<section class="contact">
    <div style="float: left; width: 50%;">
       <div class="form-container">
         <form action="" method="">
            <div class="title"><h1>Contact Us</h1></div>
            <div class="form-group">
              <div class="row">
```

}

```
<div class="column">
                   <label for="name">Name</label>
                   <input type="text" name="" id="name">
                 </div>
                 <div class="column">
                   <label for="email">Email</label>
                   <input type="email" name="" id="email">
                 </div>
                 <div class="column">
                   <label for="phone">Phone Number</label>
                   <input type="number" name="" id="phone">
                 </div>
                 <div class="column">
                   <label for="from">Message</label>
                   <textarea></textarea>
                 </div>
              </div>
            </div>
            <button type="submit" id="senBtn" class="sendBtn"><i class="fa fa-paper-plane"></i> Send
Message</button>
         </form>
       </div>
    </div>
    <div style="float: right; width: 50%">
       <div class="form-container">
         <form action="" method="">
            <div class="form-group">
              <div class="row">
                 <img src="../images/map.jpg" height="590px" width="100%">
              </div>
            </div>
         </form>
       </div>
    </div>
  </section>
Train Schedule Page
<!DOCTYPE html>
<html>
<head>
  <meta charset="utf-8">
  <meta name="viewport" content="width=device-width, initial-scale=1">
  <title>Schedule</title>
  k rel="icon" type="image/x-icon" href="/or2s/User/images/logo/favicon.png">
  k rel="stylesheet" type="text/css" href="./css/pages.css">
```

```
integrity="sha512-
MV7K8+y+gLIBoVD59IQIYicR65iagukzvf/nwasF0nghPay5w/9IJmVM2hMDcnK1OnMGCdVK+iQrJ7lzPJQd1w==
  crossorigin="anonymous" referrerpolicy="no-referrer" />
</head>
<body>
 <main>
    <center>
      <div class="schedule">
          <form action="" method="POST">
            <div>
              <h1 style="margin-top: 0;">Train Schedule</h1>
              <input class="schd" type="text" id="train-box" name="getdata" autocomplete="off" required>
              <input class="submitbtn" type="submit" id="search" value="Search" name="search">
            </div>
          </form>
        <?php
         if(isset($_POST['search'])){
            $train_num = $_POST['getdata'];
            $query = "select * from trains left join timetable on timetable.train_id=trains.id where
trains.train_num = '$train_num'";
            $result = mysqli_query($con, $query);
       ?>
        <div style="margin-top: 10px;">
          <thead>
              Train Number
                Train Name
                Source
                Destination
                Runs On
              </thead>
            <?php
                if(mysqli_num_rows($result) > 0){
                  while($row = mysqli_fetch_array($result)){
              ?>
              <?php echo $row['train_num']; ?>
                <b><?php echo $row['train_name']; ?></b>
                <?php
```

```
if($row['schedule_from'] == 1){
             echo 'ADRA';
          }else if($row['schedule_from'] == 19){
             echo 'KGP';
          }
        ?>
         <?php
          if($row['schedule_to'] == 1){
             echo 'ADRA';
          }else if($row['schedule_to'] == 19){
             echo 'KGP';
          }
        ?>
        <?php echo $row['days']; ?>
      <?php
        }else{
          ?>
             <center>NO RECORD FOUND !!</center>
             <?php
        }
      ?>
    </div>
<?php
}
?>
<?php
  if(isset($_POST['search'])){
    $data = $_POST['getdata'];
    $train_num = $_POST['getdata'];
    $query = "select * from trains where train_num = '$train_num'";
    $result = mysqli_query($con, $query);
    if(mysqli_num_rows($result) > 0){
      $row = mysqli_fetch_array($result);
    }
```

```
$query = "select * from stops where division_id = ".$row['division_id']." and ord <> 0 order by ord"
   $result = mysqli_query($con, $query);
?>
<div style="margin-top: 10px;">
  <thead>
     SI. No.
       Station Code
       Station Name
       Departure Time
       Arrival Time
       Distance (km)
       Division
     </thead>
    <?php
       if(mysqli_num_rows($result) > 0){
         while($row = mysqli_fetch_array($result)){
     ?>
     <?php echo $row['ord']; ?>
       <?php echo $row['stop_code']; ?>
       <?php echo $row['stop_name']; ?>
       <?php echo $row['dept_time]; ?>
       <?php echo $row['arr_time']; ?>
       <?php echo $row['distance'];; ?>
       <?php echo $row['division_id']; ?>
     ?php
         }
       }else{
         ?>
           <center>NO RECORD FOUND !!</center>
           <?php
       }
     ?>
    </div>
<?php
}
?>
```

</div>
</center>
</main>
</body>
</html>

PNR ENQUIRY PAGE

```
<!DOCTYPE html>
<html>
<head>
 <meta charset="utf-8">
 <meta name="viewport" content="width=device-width, initial-scale=1">
 <title>PNR Enquiry</title>
 link re/="icon" type="image/x-icon" href="/or2s/User/images/logo/favicon.png">
 k re/="stylesheet" type="text/css" href="./css/pages.css">
 </l></l></l></
integrity="sha512-
crossorigin="anonymous" referrerpolicy="no-referrer" />
</head>
<body>
 <main>
   <center>
     <div class="schedule">
       <form action="" method="POST">
         <h1 style="margin-top: 0;">PNR</h1>
         <label for="pnr">Enter your PNR</label><br>
         <input class="schd" type="text" id="pnr" name="getdata" autocomplete="off" required>
         <input class="submitbtn" type="submit" id="search" value="Search" name="search">
       </form>
       <?php
         if(isset($_POST['search'])){
           $pnr_num = $_POST['getdata'];
           $query = "select * from passengers where passengers.p_id = '$pnr_num'";
           $result = mysqli_query($con, $query);
       ?>
       <div style="margin-top: 10px;">
         <thead>
             PNR Number
               Booking ID
               Name
               Date Of Birth
               Gender
               Berth Preference
             </thead>
```

```
<?php
                 if(mysqli_num_rows($result) > 0){
                   while($row = mysqli_fetch_array($result)){
              ?>
               <?php echo $row['p_id']?>
                 <?php echo $row['book_id']?>
                 <?php echo $row['f_name']?> <?php echo $row['l_name']?>
                 <?php
                     echo date('d-m-Y',strtotime($row['age']));
                 <?php
                  if($row['gender'] == 1){
                     echo 'Male';
                  }else{
                     echo 'Female';
                  }
                 ?>
                 <?php
                  if($row['berth'] == 1){
                     echo 'Lower Berth';
                  }else if($row['berth'] == 2){
                     echo 'Middle Berth';
                  }else{
                     echo 'Upper Berth';
                  }
                 ?>
                 </div>
        <?php
        ?>
      </div>
    </center>
  </main>
</body>
</html>
```

TRAIN SEARCH PAGE

```
<!DOCTYPE html>
<html>
<head>
  <meta charset="utf-8">
  <meta name="description" content="Online Railway Reservation System">
  <meta name="keywords" content="HTML, CSS, JavaScript, PHP, MySQL">
  <meta name="viewport" content="width=device-width, initial-scale=1">
  <title>OR2S | Train List</title>
  k re/="icon" type="image/x-icon" href="/or2s/User/images/logo/favicon.png">
  </l></l></l></
integrity="sha512-
MV7K8+y+qLlBoVD59IQIYicR65iagukzvf/nwasF0nghPay5w/9IJmVM2hMDcnK1OnMGCdVK+iQrJ7lzPJQd1w==
  crossorigin="anonymous" referrerpolicy="no-referrer" />
</head>
<body>
  <header class="header">
    <div class="header" id="myHeader">
      <span class="logo"><a href="../index.php">
        <img src="/or2s/User/images/logo/or2s_black.png" width="150px">
      </a></span>
      <div class="menu">
        <a href="../index.php"><i class="fa fa-home"></i> HOME</a>
           <a href="../pages/about.php"><i class="fa fa-users"></i> ABOUT US</a>
          <a href="../pages/schedule.php"><i class="fa fa-train"></i> TRAIN SCHEDULE</a>
           <a href="#" class="active"><i class="fa fa-ticket"></i> TRAIN LIST</a>
           <a href="../pages/pnr.php"><i class="fa fa-address-card"></i> PNR STATUS</a>
           <a href="../pages/contact.php"><i class="fa fa-phone"></i> CONTACT US</a>
           class="user">
             <?php
             if(isset($user_data['f_name'])) {
               echo '<a href="/or2s/User/booking/myticket.php" class=""><i class="fa fa-ticket"></i> MY
TICKETS</a>i><i class="fa fa-user"></i><b> Welcome, </b>'.$user data['f name'].'
'.$user data['l name'].'':
             ?>
           <div class="logoutbtn">
             <a href="/or2s/User/auth/logout.php" class="logout"><i class="fa fa-sign-out"></i>
LOGOUT</a>
           </div>
           <?php }else { ?>
             <div class="button">
               <a href="../auth/login.php" c/ass="login"><i c/ass="fa fa-sign-in"></i> LOGIN</a>
               <a href="../auth/register.php" class="register"><i class="fa fa-user"></i>
REGISTER</a>
```

```
</div>
            <?php } ?>
         </div>
    </div>
  </header>
  <main>
    <div class="form-container">
         <form action="" method="GET">
            <div class="form-group">
            <div class="row">
               <div class="column">
                 <label for="from">From</label>
                 <?php
                   $query = "select ord, stop code, stop name from stops";
                   $result = mysqli_query($con,$query);
                 ?>
                 <select class="form-select" id="from" name="from">
                   if(mysqli_num_rows($result) > 0){
                      while($row = mysqli_fetch_array($result)){
                 ?>
                 <option value="<?php echo $row['ord']; ?>"><?php echo $row['stop_code'];?> - <?php echo</pre>
$row['stop_name'];?></option>
                 <?php
                   }
                 ?>
                 </select>
                 <?php
                 }
                 ?>
               </div>
               <div class="column">
                 <label for="to">To</label>
                 <?php
                   $query = "select ord,stop_code,stop_name from stops";
                   $result = mysqli_query($con,$query);
                 ?>
                 <select class="form-select" id="to" name="to">
                 <?php
                   if(mysqli_num_rows($result) > 0){
                      while($row = mysqli_fetch_array($result)){
                 <option value="<?php echo $row['ord']; ?>"><?php echo $row['stop_code'];?> - <?php echo</pre>
$row['stop_name'];?></option>
                 <?php
                   }
```

```
?>
  </select>
  <?php
  }
  ?>
</div>
<div class="column">
  <label for="date">Date</label>
  <input type="date" id="date" name="date" value="<?php echo date('Y-m-d'); ?>" />
</div>
<div class="column">
<label for="class">Class</label>
  <?php
    $query = "select class_id,class_name from train_class limit 8";
    $result = mysgli query($con,$query);
  ?>
  <select class="form-select" id="class" name="class">
    if(mysqli num rows($result) > 0){
       while($row = mysqli_fetch_array($result)){
  ?>
  <option value="<?php echo $row['class_id']; ?>"><?php echo $row['class_name'];?></option>
  <?php
    }
  ?>
  </select>
  <?php
  }
  ?>
</div>
<div class="column">
  <label for="quota">Quota</label>
    $query = "select quota_id,quota_name from train_quota limit 6";
    $result = mysqli_query($con,$query);
  <select class="form-select" id="quota" name="quota">
  <?php
    if(mysqli_num_rows($result) > 0){
       while($row = mysqli_fetch_array($result)){
  <option value="<?php echo $row['quota_id']; ?>"><?php echo $row['quota_name'];?></option>
  <?php
    }
  ?>
  </select>
  <?php
  }
```

```
?>
              </div>
             <div class="column">
                <button type="submit" name="submit" class="searchBtn">Search/button>
             </div>
           </div>
           <div class="row" style="border-top: 1px solid darkblue;margin-top: 20px;">
             <div class="column">
                <label>Show Trains</label>
                <select name="train" id="maxRows">
                  <option value="5000">Show All
                  <option value="5">5</option>
                  <option value="10">10</option>
                  <option value="15">15</option>
                  <option value="20">20</option>
                  <option value="50">50</option>
                  <option value="70">70</option>
                  <option value="100">100</option>
                </select>
             </div>
           </div>
           <?php
             if(isset($_GET['from'])){
               $query = "SELECT * FROM trains LEFT JOIN stops ON stops.stop_id = trains.id LEFT JOIN
train_class ON train_class.class_id = trains.id LEFT JOIN train_quota ON train_quota.quota_id = trains.id LEFT
JOIN timetable ON timetable.train_id = trains.id WHERE (schedule_from >=".$_GET['from']." AND schedule_to
<=".$_GET['to']." OR schedule_from <=".$_GET['to']." AND schedule_to >=".$_GET['from'].")";
               if($_GET['from'] == $_GET['to']){
                  echo 'From Station and To Station are not be same. PLease select
another!!!':
               }else{
                  $result = mysqli_query($con, $query);
               $row = mysqli_fetch_array($result)
           ?>
           <div class="row" style="overflow-x: scroll;">
             <thead>
```

```
Train Number
                 Train Name
                 Depurture Time
                 Arrival Time
                 Duration
                 Distance
                 Runs On
                 Book
               </thead>
             <?php
                 if(mysqli_num_rows($result) > 0){
                   while($row = mysqli_fetch_array($result)){
               ?>
               <?php echo $row['train_num']; ?>
                 <?php echo $row['train name']; ?>
                 <?php echo date('H:i A',strtotime($row['arr_time'])); ?>
                 <?php echo date('H:i A',strtotime($row['dept_time'])); ?>
                 <?php echo $row['duration']; ?>
                 <?php echo $row['distance'].' KM'; ?>
                 <?php echo $row['days']; ?>
                 <a href="./bookTicket.php?train_id=<?php echo $row['train_num'];
?>&train_name=<?php echo $row['train_name']; ?>&arr_time=<?php echo $row['arr_time'];
?>&dept_time=<?php echo $row['dept_time']; ?>&date=<?php echo date('Y-m-d'); ?>&from=<?php echo
$row['schedule_from']; ?>&to=<?php echo $row['schedule_to']; ?>&class=<?php echo $row['class_id'];</pre>
?>&quota=<?php echo $row['quota_id']; ?>">Book</a>
                 <?php
                 }else{
                   ?>
                     <center>NO RECORD FOUND !!</center>
                     <?php
               ?>
             </div>
         <?php
          ?>
```

```
</div>
            <div class='pagination-container' >
              <nav>
               ul class="pagination">
                data-page="prev" ><span> < Prev <span class="sr-only">(current)</span>
                 data-page="next" id="prev"><span> Next > <span class="sr-</pre>
only">(current)</span></span>
               </nav>
            </div>
       </form>
    </div>
  </main>
<?php include("../footer.php"); ?>
<script src="https://ajax.googleapis.com/ajax/libs/jquery/3.6.0/jquery.min.js"></script>
<script type="text/javascript">
  window.onscroll = function() {myFunction()};
  var header = document.getElementByld("myHeader");
  var sticky = header.offsetTop;
  function myFunction() {
   if (window.pageYOffset > sticky) {
    header.classList.add("sticky");
   } else {
    header.classList.remove("sticky");
   }
  }
</script>
<script type="text/javascript">
  $(document).ready(function () {
    const urlSearchParams = new URLSearchParams(window.location.search);
    const params = Object.fromEntries(urlSearchParams.entries());
    var myData = $('#from');
    var toData = ('#to');
    var classData = $('#class');
    var quotaData = $('#quota');
    myData.val(params.from);
    toData.val(params.to);
    classData.val(params.class);
```

```
quotaData.val(params.quota);
     // console.log(params.from);
  });
</script>
  <script type="text/javascript">
     getPagination('#table-id');
     function getPagination(table) {
      var lastPage = 1;
      $('#maxRows')
       .on('change', function(evt) {
        lastPage = 1;
        $('.pagination')
          .find('li')
          .slice(1, -1)
          .remove();
         var trnum = 0;
         var maxRows = parseInt($(this).val());
        if (\max Rows == 5000) {
          $('.pagination').hide();
        } else {
          $('.pagination').show();
        }
        var totalRows = $(table + ' tbody tr').length;
         $(table + 'tr:gt(0)').each(function() {
          trnum++;
          if (trnum > maxRows) {
           $(this).hide();
          if (trnum <= maxRows) {
           $(this).show();
        });
         if (totalRows > maxRows) {
          var pagenum = Math.ceil(totalRows / maxRows);
          for (var i = 1; i <= pagenum; ) {
           $('.pagination #prev')
             .before(
              '<li data-page="" +
               j +
               "">\
                           <span>' +
```

```
j++ +
       '<span class="sr-only">(current)</span></span>\
                 '
    )
     .show();
 }
 $('.pagination [data-page="1"]').addClass('active');
 $('.pagination li').on('click', function(evt) {
  evt.stopImmediatePropagation();
  evt.preventDefault();
  var pageNum = $(this).attr('data-page');
  var maxRows = parseInt($('#maxRows').val());
  if (pageNum == 'prev') {
   if (lastPage == 1) {
    return;
   }
   pageNum = --lastPage;
  if (pageNum == 'next') {
   if (lastPage == $('.pagination li').length - 2) {
    return;
   }
   pageNum = ++lastPage;
  lastPage = pageNum;
  var trlndex = 0;
  $('.pagination li').removeClass('active');
  $('.pagination [data-page="' + lastPage + ""]').addClass('active');
  limitPagging();
  $(table + 'tr:gt(0)').each(function() {
   trIndex++;
   if (
    trIndex > maxRows * pageNum ||
    trIndex <= maxRows * pageNum - maxRows
   ) {
    $(this).hide();
   } else {
    $(this).show();
   }
  });
 });
 limitPagging();
})
```

```
.val(5)
        .change();
     }
     function limitPagging(){
        if($('.pagination li').length > 7){
              if( $('.pagination li.active').attr('data-page') <= 3 ){
              $('.pagination li:gt(5)').hide();
              $('.pagination li:lt(5)').show();
              $('.pagination [data-page="next"]').show();
           }if ($('.pagination li.active').attr('data-page') > 3){
              $('.pagination li:gt(0)').hide();
              $('.pagination [data-page="next"]').show();
              for(\ let\ i=(\ parseInt(\$('.pagination\ li.active').attr('data-page'))\ \ -2\ )\ \ ;\ i<=(\ parseInt(\$('.pagination\ li.active').attr('data-page'))\ \ -2\ )
li.active').attr('data-page')) + 2); i++){
                 $('.pagination [data-page="'+i+"]').show();
              }
           }
        }
     }
     $(function() {
       $('table tr:eq(0)').prepend(' SI. No. ');
       var id = 0;
       $('table tr:gt(0)').each(function() {
        $(this).prepend('' + id + '');
       });
     });
   </script>
```

RESERVATION FORM

```
<?php
session start();
include("../db/connection.php");
include("../db/functions.php");
echo "k rel='stylesheet' type='text/css' href='../css/header.css' />";
echo "k rel='stylesheet' type='text/css' href='../booking/css/book-ticket.css' />";
  $user_data = [];
  if(isset($ SESSION['id'])){
    $query = "select * from users where id = ".$_SESSION['id'];
    $result = mysqli_query($con, $query);
    if($result){
      if($result && mysqli_num_rows($result) > 0){
         $user_data = mysqli_fetch_assoc($result);
      }
    }
  }else{
    header("Location: /OR2S/User/auth/login.php");
    exit();
?>
<!DOCTYPE html>
<html>
<head>
  <meta charset="utf-8">
  <meta name="description" content="Online Railway Reservation System">
  <meta name="keywords" content="HTML, CSS, JavaScript, PHP, MySQL">
  <meta name="viewport" content="width=device-width, initial-scale=1">
  <title>OR2S | Add Ticket</title>
  link re/="icon" type="image/x-icon" href="/or2s/User/images/logo/favicon.png">
  </l></l></l></
integrity="sha512-
MV7K8+y+gLIBoVD59IQIYicR65iaqukzvf/nwasF0nqhPay5w/9IJmVM2hMDcnK1OnMGCdVK+iQrJ7lzPJQd1w==
  crossorigin="anonymous" referrerpolicy="no-referrer" />
</head>
<body>
  <header class="header">
    <div class="header" id="myHeader">
      <span class="logo"><a href="../index.php">
         <img src="/or2s/User/images/logo/or2s_black.png" width="150px">
      </a></span>
      <div class="menu">
```

```
<a href="../index.php"><i class="fa fa-home"></i> HOME</a>
           <a href="../pages/about.php"><i class="fa fa-users"></i> ABOUT US</a>
           <a href="../pages/schedule.php"><i c/ass="fa fa-train"></i> TRAIN SCHEDULE</a>
           <a href="../booking/train-list.php"><i class="fa fa-ticket"></i> RESERVATION</a>
           <a href="../pages/pnr.php"><i class="fa fa-address-card"></i> PNR STATUS</a>
           <a href="../pages/contact.php"><i class="fa fa-phone"></i> CONTACT US</a>
           class="user">
             <?php if(isset($user_data['f_name'])) {</pre>
                echo '<a href="/or2s/User/booking/myticket.php" class=""><i class="fa fa-ticket"></i> MY
TICKETS</a>iclass="fa fa-user"></i><b> Welcome, </b>'.$user data['f name'].'
'.$user_data['l_name'].'';
              ?>
           <div class="logoutbtn">
             <a href="/or2s/User/auth/logout.php" class="logout"><i class="fa fa-sign-out"></i>
LOGOUT</a>
           </div>
           <?php }else { ?>
             <div class="button">
                <a href="../auth/login.php" class="login"><i class="fa fa-sign-in"></i> LOGIN</a>
                <a href="../auth/register.php" class="register"><i class="fa fa-user"></i>
REGISTER</a>
             </div>
           <?php } ?>
         </div>
    </div>
  </header>
  <section>
    <div class="form-container">
      <form action="/or2s/User/booking/booking.php" method="POST">
         <div class="title"><h3>Reservation Form</h3></div>
         <div class="form-group">
           <div class="row">
              <div class="column">
                <label for="train no">Train Number</label>
                <input id="train_no" name="train_no" value="<?php echo $_GET['train_id']; ?>"
class="disable">
              </div>
              <div class="column">
                <label for="train_name">Train Name</label>
                <input id="train_name" name="train_name" value="<?php echo $_GET['train_name']; ?>"
class="disable" >
              </div>
              <div class="column">
```

```
<?php
                 if(isset($ GET['from'])){
                    $query = "select * from trains join stops on trains.schedule_from = stops.ord where
schedule from = ".$ GET['from']." ";
                    $result = mysqli_query($con,$query);
                    $row = mysqli_fetch_array($result);
                 ?>
                 <label for="from">From Station</label>
                 <input id="from" name="from" value="<?php echo $row['stop code']; ?>" class="disable" >
                 <?php
                 }
                 ?>
               </div>
               <div class="column">
                 <?php
                 if(isset($_GET['to'])){
                    $query = "select * from trains join stops on trains.schedule_to = stops.ord where schedule_to
= ".$_GET['to']." ";
                    $result = mysqli_query($con,$query);
                    $row = mysqli_fetch_array($result);
                 ?>
                  <label for="to">To Station</label>
                  <input id="to" name="to" value="<?php echo $row['stop_code']; ?>" class="disable" >
                 <?php
                 }
                 ?>
               </div>
               <div class="column">
                 <?php
                    if(isset($_GET['class'])){
                      $query = "select * from train_class where class_id = ".$_GET['class']." ";
                      $result = mysqli_query($con,$query);
                      $row = mysqli_fetch_array($result);
                 ?>
                 <label for="class">Class</label>
                  <input id="class" name="class" value="<?php echo $row['class_name']; ?>" class="disable" >
```

```
<?php
                }
                ?>
              </div>
            </div>
            <div class="row" style="margin-bottom: 15px;">
              <div class="column">
                 <?php
                   if(isset($_GET['quota'])){
                     $query = "select * from train_quota where quota_id = ".$_GET['quota']." ";
                     $result = mysqli_query($con,$query);
                     $row = mysqli fetch array($result);
                 ?>
                 <label for="quota">Quota</label>
                 <input id="quota" name="quota" value="<?php echo $row['quota_name']; ?>" class="disable" >
                 <?php
                }
                ?>
              </div>
              <div class="column">
                 <label for="arr_time">Depurture Time</label>
                 <input id="arr_time" name="arr_time" value="<?php echo date('H:i</pre>
A',strtotime($_GET['arr_time'])); ?>" class="disable" >
              </div>
              <div class="column">
                 <label for="dept_time">Arrival Time</label>
                 <input id="dept_time" name="dept_time" value="<?php echo date('H:i</pre>
A',strtotime($_GET['dept_time'])); ?>" class="disable" >
              </div>
              <div class="column">
                 <label for="date">Date of Booking</label>
                 <input id="date" name="date" value="<?php echo date('d-m-Y',strtotime($_GET['date'])); ?>"
class="disable" >
              </div>
            </div>
            <div class="row" style="margin-bottom: 15px;">
              <button id="addPerson" class="addPerson"><i class="fa fa-plus"></i> Add Person/button>
            </div>
            <div class="row">
              <thead>
                   First Name
```

```
Last Name
              Date of Birth
              Gender
              Berth Preference
            </thead>
          <input type="name" id="f name" name="f name[]" required>
              <input type="name" id="l_name" name="l_name[]" required>
              <input type="date" id="age" name="age[]" required>
              <select name="gender[]" id="gender" class="form-select" required>
                  <option value="1">Male</option>
                  <option value="2">Female</option>
                </select>
              <?php
                  $query = "select id,name from berth";
                  $result = mysqli_query($con,$query);
                <select class="form-select" id="berth" name="berth[]" required>
                <?php
                  if(mysqli_num_rows($result) > 0){
                    while($row = mysqli_fetch_array($result)){
                ?>
                <option value="<?php echo $row['id']; ?>"><?php echo $row['name'];?></option>
                <?php
                  }
                ?>
                </select>
                <?php
                }
                ?>
              <button class="removeBtn"><i class="fa fa-xmark"></i> Remove</button>
              </div>
    <button style="float: right;" type="submit" id="submit" name="submit" class="form-btn">Next</button>
    <button style="float: right;" class="form-btn"><a href="../index.php">Cancel</a></button>
 </form>
</div>
```

```
</section>
  <script src="https://ajax.googleapis.com/ajax/libs/jquery/3.6.3/jquery.min.js"></script>
  <script type="text/javascript">
    window.onscroll = function() {myFunction()};
    var header = document.getElementById("myHeader");
    var sticky = header.offsetTop;
    function myFunction() {
     if (window.pageYOffset > sticky) {
      header.classList.add("sticky");
     } else {
      header.classList.remove("sticky");
     }
  </script>
  <script>
  $(document).ready(function(){
    $("#addPerson").click(function(e){
       e.preventDefault();
       var count = $('.pdetails').length;
      if(count<5){
        $("#passenger").append('<input type="name" id="f_name" name="f_name[]"
id="age" name="age[]"><select name="gender[]" id="gender" class="form-select"
fdprocessedid="2proex"><option value="1">Male</option><option
value="2">Female</option></select>select class="form-select" id="berth" name="berth||
fdprocessedid="th3f2"><option value="1">Lower Berth</option><option value="2">Middle Berth</option><option
value="3">Upper berth</option></select><button class="removeBtn" fdprocessedid="bnooyj"><i
class="fa fa-xmark"></i> Remove</button>'):
      }else{
        alert("Already Add Five Tickets!!!");
      // console.log(count);
    });
    $(document).on("click", ".removeBtn", function() {
      $(this).closest('.pdetails').remove();
    });
  });
  </script>
```

REVIEW RESERVATION FORM

```
<?php
  if(isset($ POST['submit'])){
    $train_no = $_POST['train_no'];
    $train_num = $_POST['train_name'];
    $source = $_POST['from'];
    $dest = $_POST['to'];
    $class = $_POST['class'];
    $quota = $_POST['quota'];
    $query="insert into booking(train_no,train_name,source,dest,class,quota)
    values ('$train_no','$train_num','$source','$dest','$class','$quota')";
    $bookresult = mysqli_query($con, $query);
    $user_id = $_SESSION['id'];
    for($i=0; $i<count($_POST['f_name']); $i++){
      $f_name = $_POST['f_name'][$i];
      $I_name = $_POST['I_name'][$i];
      $age = $_POST['age'][$i];
      $gender = $ POST['gender'][$i];
      $berth = $_POST['berth'][$i];
      $book_id = $bookresult;
      $query = "insert into passengers(user_id,book_id,f_name,l_name,age,gender,berth)
values('$user_id', '$book_id', '$f_name', '$l_name', '$age', '$gender', '$berth')";
      $presult = mysqli_query($con, $query);
    }
    $query = "select * from passengers where book_id = '$book_id'";
    $result = mysqli_query($con, $query);
    $row = mysqli_fetch_array($result);
  }
?>
<!DOCTYPE html>
<html>
<head>
  <meta charset="utf-8">
  <meta name="description" content="Online Railway Reservation System">
  <meta name="keywords" content="HTML, CSS, JavaScript, PHP, MySQL">
  <meta name="viewport" content="width=device-width, initial-scale=1">
  <title>OR2S | Reservation</title>
  k re/="icon" type="image/x-icon" href="/or2s/User/images/logo/or2s.png">
  integrity="sha512-
```

```
MV7K8+y+gLlBoVD59lQlYicR65iaqukzvf/nwasF0nqhPay5w/9lJmVM2hMDcnK1OnMGCdVK+iQrJ7lzPJQd1w==
   crossorigin="anonymous" referrerpolicy="no-referrer" />
</head>
<body>
  <section>
    <div class="form-container">
       <form action="/or2s/User/booking/myticket.php" method="POST">
         <div class="title"><h3>Reservation Form</h3></div>
         <div class="form-group">
            <div class="row">
              <div class="column">
                 <label for="train no">Train Number</label>
                 <input id="train_no" name="train_no" value="<?php echo $_POST['train_no']; ?>"
class="disable">
              </div>
              <div class="column">
                 <label for="train name">Train Name</label>
                 <input id="train name" name="train name" value="<?php echo $ POST['train name']; ?>"
class="disable">
              </div>
              <div class="column">
                <label for="from">Source</label>
                 <input id="from" name="from" value="<?php echo $_POST['from']; ?>" class="disable">
              </div>
              <div class="column">
                 <label for="to">Destination</label>
                 <input id="to" name="to" value="<?php echo $_POST['to']; ?>" class="disable">
              </div>
              <div class="column">
                <label for="class">Class</label>
                 <input id="class" name="class" value="<?php echo $ POST['class']; ?>" class="disable">
              </div>
            </div>
            <div class="row" style="margin-bottom: 15px;">
              <div class="column">
                 <label for="quota">Quota</label>
                 <input id="quota" name="quota" value="<?php echo $_POST['quota']; ?>" class="disable">
              </div>
              <div class="column">
                 <label for="dept_time">Depurture Time</label>
                 <input id="dept time" name="dept time" value="<?php echo $ POST['arr time']; ?>"
class="disable">
              </div>
              <div class="column">
                 <label for="arr time">Arrival Time</label>
                 <input id="arr_time" name="arr_time" value="<?php echo $_POST['dept_time']; ?>"
class="disable">
```

```
</div>
  <div class="column">
    <a href="date">Date of Booking</abel>
    <input id="date" name="date" value="<?php echo $_POST['date']; ?>" class="disable">
  </div>
</div>
<div class="row" style="border-top: 1px solid #000;">
  <?php
    if(isset($_POST)){
      for($i=1; $i<=$row; $i++){
        $f_name = $row['f_name'];
        $I_name = $row['I_name'];
        $age = $row['age'];
        $gender = $row['gender'];
        $berth = $row['berth'];
        $query = "select * from passengers limit 5";
        $result = mysqli_query($con, $query);
  ?>
  <thead>
      SI. No.
        First Name
        Last Name
        Age
        Gender
        Berth Preference
      </thead>
    <?php
        if(mysqli_num_rows($result) > 0){
          while($row = mysqli_fetch_array($result)){
      ?>
      <?php echo $i++ ?>
        <?php echo $row['f_name']; ?>
        <?php echo $row['l_name']; ?>
        <?php echo date('d-m-Y',strtotime($row['age'])); ?>
        <?php
          if(\text{srow}[\text{gender'}] == 1){
             echo 'Male';
          }else{
             echo 'Female';
```

```
?>
                   <?php
                     if($row['berth'] == 1){
                       echo 'Lower Berth';
                    }else if($row['berth'] == 2){
                       echo 'Middle Berth';
                    }else{
                       echo 'Upper Berth';
                    }
                   ?>
                   <?php
                  }else{
                     ?>
                         <center>NO RECORD FOUND !!</center>
                       <?php
                  }
                 ?>
              <?php
              }
            }
          ?>
          </div>
        </div>
        <button style="float: right;" type="submit" id="submit" name="submit" class="form-btn"
formtarget="_blank">Book Now</a></button>
      </form>
    </div>
  </section>
Payment Page
<!DOCTYPE html>
<html lang="en">
<title>
  Payment
</title>
```

```
<head>
  <meta charset="UTF-8">
  <meta http-equiv="X-UA-Compatible" content="IE=edge">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  k rel="icon" type="image/x-icon" href="/or2s/User/PAYMENT/images/icon.png">
  <link rel="stylesheet" href="css/style.css">
  k rel="stylesheet"
href="https://fonts.googleapis.com/css2?family=Material+Symbols+Outlined:opsz,wght,FILL,GRAD@20..48,100...
700,0..1,-50..200" />
</head>
<body>
  <h1>
  </h1>
  <h1 id="heading">
    PAYMENT GATEWAY OF OR2S
  </h1>
  <div class="container">
    <div id="left">
      <h3 id="lefttop">Payment Type</h3>
      <a href="creditCard.php">
         <div class="rajat" id="onit">
           <span class="material-symbols-outlined">
           credit_card
           </span>
           Credit Card
           <span class="material-symbols-outlined">
           chevron_right
           </span>
         </div>
       </a>
      <a href="DebitCard.php">
         <div class="rajat">
           <span class="material-symbols-outlined">
           credit_card
           </span>
           Debit Card
         </div>
       </a>
      <a href="Internet_Banking.php">
         <div class="rajat">
```

```
<span class="material-symbols-outlined">
       account balance
       </span>
       Internet Banking
     </div>
  </a>
  <a href="Upi_payment.php">
     <div class="rajat">
       <span class="material-symbols-outlined">
       currency_rupee
       </span>
       UPI / BHIM
     </div>
  </a>
</div>
<form action="">
  <div class="row">
     <div class="col">
       <h3 class="title">billing address</h3>
       <div class="inputBox">
          <span>full name :</span>
          <input type="text" placeholder="abc xyz">
       </div>
       <div class="inputBox">
          <span>email :</span>
          <input type="email" placeholder="example@example.com">
       </div>
       <div class="inputBox">
         <span>address :</span>
          <input type="text" placeholder="room - street - locality">
       </div>
       <div class="inputBox">
          <span>city :</span>
          <input type="text" placeholder="Midnapore">
       </div>
       <div class="flex">
         <div class="inputBox">
            <span>state :</span>
            <input type="text" placeholder="West Bengal">
         </div>
         <div class="inputBox">
            <span>zip code :</span>
            <input type="text" placeholder="123 456">
         </div>
       </div>
```

```
</div>
         <div class="col">
            <h3 class="title">payment</h3>
           <div class="inputBox">
              <span>cards accepted :</span>
              <img src="images/card_img.png" alt="">
            </div>
            <div class="inputBox">
              <span>name on card :</span>
              <input type="text" placeholder="abc xyz">
            </div>
            <div class="inputBox">
              <span>credit card number :</span>
              <input type="number" placeholder="1111-2222-3333-4444">
            </div>
            <div class="inputBox">
              <span>exp month :</span>
              <input type="text" placeholder="january">
            </div>
            <div class="flex">
              <div class="inputBox">
                 <span>exp year :</span>
                 <input type="number" placeholder="2032">
              </div>
              <div class="inputBox">
                 <span>CVV :</span>
                 <input type="text" placeholder="123">
              </div>
            </div>
         </div>
       </div>
       <button class="submit-btn"> <a href="confirmed.php">proceed to checkout</a></button>
    </form>
  </div>
</body>
</html>
```

PAYMENT CONFIRMATION PAGE

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta http-equiv="X-UA-Compatible" content="IE=edge">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>All Set!! Payment Done!!</title>
  k rel="icon" type="image/x-icon" href="/or2s/User/PAYMENT/images/done.png">
  <link rel="stylesheet" href="css/done.css">
  k rel="stylesheet" type="text/css" href="https://cdnjs.cloudflare.com/ajax/libs/font-
awesome/6.4.0/css/all.min.css" />
</head>
<body>
<section class="banner all">
  <button class="final" id="final"><a target="_blank"</pre>
re/="noopener"href="/or2s/User/booking/myticket.php"><font color="white">Go to MY TICKETS</a></button>
  <button class="home"id="home"><a href="../index.php"><i class="fa fa-home"></i><font color="white">
HOME</a></button>
</section>
</body>
</html>
```

MY TICKETS PAGE

```
<!DOCTYPE html>
<html>
<head>
  <meta charset="utf-8">
  <meta name="description" content="Online Railway Reservation System">
  <meta name="keywords" content="HTML, CSS, JavaScript, PHP, MySQL">
  <meta name="viewport" content="width=device-width, initial-scale=1">
  <title>OR2S | Tickets</title>
  < link re/="stylesheet" href="https://cdnis.cloudflare.com/ajax/libs/font-awesome/6.4.0/css/all.min.css" />
</head>
<body>
  <header class="header">
    <div class="header" id="myHeader">
       <span class="logo" style="margin-top: 20px;"><a href="../index.php">
         <img src="/or2s/User/images/logo/or2s_black.png" width="150px">
       </a></span>
       <div class="menu">
         <a href="../index.php"><i class="fa fa-home"></i> HOME</a>
           <a href="../pages/about.php"><i class="fa fa-users"></i> ABOUT US</a>
           <|i><a href="../pages/schedule.php"><i class="fa fa-train"></i> TRAIN SCHEDULE</a>
           <a href="../index.php"><i class="fa fa-ticket"></i> RESERVATION</a>
           <a href="../pages/pnr.php"><i class="fa fa-address-card"></i> PNR STATUS</a>
           <a href="../pages/contact.php"><i class="fa fa-phone"></i> CONTACT US</a>
           class="user">
              <?php if(isset($user_data['f_name'])) {</pre>
                echo '<span><i class="fa fa-user"></i>>b> Welcome, </b>'.$user_data['f_name'].'
'.$user_data['l_name'].'</span>';
              ?>
           <a href="#" class="active"><i class="fa fa-user"></i> MY TICKETS</a>
           <div class="logoutbtn">
              <a href="../or2s/auth/logout.php" class="logout"><i class="fa fa-sign-out"></i>
LOGOUT</a>
           </div>
           <?php }else { ?>
              <div class="button">
                <a href="../auth/slogin.php" class="slogin"><i class="fa fa-lock"></i> STAFF
LOGIN</a>
                <a href="../auth/login.php" class="login"><i class="fa fa-sign-in"></i> LOGIN</a>
                <a href="../auth/register.php" class="register"><i class="fa fa-user"></i>
REGISTER</a>
              </div>
           <?php } ?>
```

```
</div>
    </div>
  </header>
  <section>
    <div class="form-container">
      <form action="" method="GET">
        <div class="title"><h3>Tickets</h3></div>
        <div class="form-group">
          <div class="row">
            <div class="pageNum">
              <select name="state" id="maxRows">
                 <option value="5000">Show All
                 <option value="2">2</option>
                 <option value="5">5</option>
                 <option value="10">10</option>
                 <option value="15">15</option>
                 <option value="20">20</option>
                 <option value="50">50</option>
                 <option value="70">70</option>
                 <option value="100">100</option>
               </select>
            </div>
            <button style="float: right;margin-top: 10px;" class="form-btn"><a href="../pages/pnr.php"><i</pre>
class="fa fa-address-card"></i> Check PNR</a></button>
          </div>
          <div class="row" style="overflow-x: scroll;">
            <?php
              if(isset($_GET)){
                $query = "select * from passengers join booking on booking.id=passengers.p_id";
                 $result = mysqli_query($con, $query);
            ?>
            <thead>
                 Booking ID
                   PNR Number
                   Name
                   Age
                   Gender
                   Berth Preference
                   Train
                   From Station
                   To Station
                   Class
                   Quota
                   Journey Date
                   Seat No
```

```
Status
    Print
  </thead>
<?php
    if(mysqli_num_rows($result) > 0){
      while($row = mysqli_fetch_array($result)){
  ?>
  <?php echo $row['book_id']; ?>
    <?php echo $row['p_id']; ; ?>
    <?php echo $row['f_name']; ?> <?php echo $row['l_name']; ?>
    <?php echo '22'; ?>
    <?php
      if(\text{srow}[\text{gender'}] == 1)
         echo 'Male';
      }else if($row['gender']==2){
         echo 'Female';
      }
      else{
         echo 'Transgender';
      }
    ?>
    >
    <?php
      if(\text{srow}[\text{berth'}] == 2){
         echo 'Lower Berth';
      }else if($row['berth'] == 3){
         echo 'Middle Berth';
      }else if($row['berth'] == 4){
         echo 'Upper Berth';
      else if($row['berth'] == 5){
         echo 'Side Upper Berth';
      }
      else{
         echo 'Side Lower Berth';
      }
    ?>
    <?php echo $row['train_no']; ?>
    <?php echo 'Adra Junction(ADRA)'; ?>
    <?php echo 'Khargapur(KGP)'; ?>
    <?php echo $row['class']; ?>
```

```
<?php echo 'General'; ?>
                  <?php echo date('Y-m-d'); ?>
                  <?php echo $row['seat_no']; ?>
                  <b>Confirmed (CNF)</b>
                  <button class="printBtn"><a target="_blank" href="/or2s/User/booking/train-</pre>
ticket.php">Check Ticket</a></button>
                  <?php
                 }else{
                    ?>
                      <center>NO RECORD FOUND !!</center>
                      <?php
                ?>
              <?php
          ?>
          </div>
        </div>
        <div class='pagination-container' >
          <nav>
           ul class="pagination">
            data-page="prev" ><span> < Prev <span class="sr-only">(current)</span>
            data-page="next" id="prev"><span> Next > <span class="sr-</pre>
only">(current)</span></span>
           </nav>
        </div>
      </form>
    </div>
  </section>
  <script src="https://ajax.googleapis.com/ajax/libs/jquery/3.6.3/jquery.min.js"></script>
  <script type="text/javascript">
```

```
window.onscroll = function() {myFunction()};
  var header = document.getElementById("myHeader");
  var sticky = header.offsetTop;
  function myFunction() {
   if (window.pageYOffset > sticky) {
     header.classList.add("sticky");
   } else {
     header.classList.remove("sticky");
   }
</script>
<script type="text/javascript">
  getPagination('#table-id');
  function getPagination(table) {
   var lastPage = 1;
    $('#maxRows')
     .on('change', function(evt) {
     lastPage = 1;
      $('.pagination')
        .find('li')
        .slice(1, -1)
        .remove();
      var trnum = 0;
      var maxRows = parseInt($(this).val());
      if (\max Rows == 5000) {
       $('.pagination').hide();
      } else {
       $('.pagination').show();
      }
      var totalRows = $(table + ' tbody tr').length;
      $(table + 'tr:gt(0)').each(function() {
       trnum++;
       if (trnum > maxRows) {
         $(this).hide();
       if (trnum <= maxRows) {</pre>
         $(this).show();
      });
```

```
if (totalRows > maxRows) {
 var pagenum = Math.ceil(totalRows / maxRows);
 for (var i = 1; i <= pagenum; ) {
  $('.pagination #prev')
   .before(
     '<li data-page="" +
      j +
      "'>\
                 <span>' +
      j++ +
      '<span class="sr-only">(current)</span></span>\
                '
   )
    .show();
}
$('.pagination [data-page="1"]').addClass('active');
$('.pagination li').on('click', function(evt) {
 evt.stopImmediatePropagation();
 evt.preventDefault();
 var pageNum = $(this).attr('data-page');
 var maxRows = parseInt($('#maxRows').val());
 if (pageNum == 'prev') {
  if (lastPage == 1) {
   return;
  }
  pageNum = --lastPage;
 if (pageNum == 'next') {
  if (lastPage == $('.pagination li').length - 2) {
   return;
  }
  pageNum = ++lastPage;
 lastPage = pageNum;
 var trlndex = 0;
 $('.pagination li').removeClass('active');
 $('.pagination [data-page="' + lastPage + ""]').addClass('active');
 limitPagging();
 $(table + 'tr:gt(0)').each(function() {
  trIndex++;
   trIndex > maxRows * pageNum ||
   trIndex <= maxRows * pageNum - maxRows
  ) {
   $(this).hide();
  } else {
   $(this).show();
```

```
}
           });
          });
          limitPagging();
        })
        .val(2)
        .change();
      function limitPagging(){
        if($('.pagination li').length > 7 ){
              if($('.pagination li.active').attr('data-page') <= 3){
              $('.pagination li:gt(5)').hide();
              $('.pagination li:lt(5)').show();
              $('.pagination [data-page="next"]').show();
           }if ($('.pagination li.active').attr('data-page') > 3){
              $('.pagination li:gt(0)').hide();
              $('.pagination [data-page="next"]').show();
              for(\ let\ i=(\ parseInt(\$('.pagination\ li.active').attr('data-page'))\ \ -2\ )\ \ ;\ i<=(\ parseInt(\$('.pagination\ li.active').attr('data-page'))\ \ -2\ )
li.active').attr('data-page')) + 2); i++){
                 $('.pagination [data-page="'+i+"]').show();
              }
           }
        }
      $(function() {
       $('table tr:eq(0)').prepend(' SI. No. ');
       var id = 0;
       $('table tr:gt(0)').each(function() {
        $(this).prepend('' + id + '');
       });
     });
   </script>
```