

ADVANCE DBMS PROJECT REPORT
On
ONLINE RAILWAY RESERVATION SYSTEM

Submitted in Partial Fulfilment of the
Requirements for the Degree of

BACHELOR OF TECHNOLOGY
In
COMPUTER SCIENCE AND ENGINEERING
By

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Under the Guidance of
Dr. Jaswant Kumar



FACULTY OF ENGINEERING AND TECHNOLOGY
UNIVERSITY OF LUCKNOW, LUCKNOW

(2022-2023)

**FACULTY OF ENGINEERING AND TECHNOLOGY
UNIVERSITY OF LUCKNOW, LUCKNOW**

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING



CERTIFICATE

This is to certify that the Advance DBMS project entitled "**“ONLINE RAILWAY RESERVATION SYSTEM”**" is submitted by **Sudhanshu Pandey** bearing Roll No. **190013135088** in partial fulfillment of the requirement for the award of the degree **BACHELOR OF TECHNOLOGY** in COMPUTER SCIENCE AND ENGINEERING during the academic year 2022-2023.

Dr. Jaswant Kumar

Advance DBMS Lab Incharge

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Incharge of Department

Computer Science and Engineering

Place: Lucknow

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING



CERTIFICATE

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Place: Lucknow

DECLARATION

We hereby declare that this submission is our own work and that, to the best of our knowledge and belief, it contains no material previously published or written by another person or material which to a substantial extent has been accepted for the award of any other degree or diploma of the university or other institute of higher education, except where due acknowledgement has been made in the text.

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I will be failing in duty if I do not acknowledge with grateful thanks to the authors of the references and other literatures referred to in this Advance DBMS project report. Last but not the least; I am very much thankful to my parents who guided me in every step which I took.

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ABSTRACT

The online railway reservation system facilitates the passengers to enquiry about the trains available on the basis of source and destination, booking and cancellation of tickets, enquiry about the status of the booked ticket, etc. The aim of case study is to design and develop a database maintaining records of different trains, train status and passengers. This project contains introduction to the online railway reservation system. It is the computerized system of reserving the seats of train seats in advance. It is mainly used for a long route. Online reservation has made the process for the reservation of seats very much easier than ever before.

In our country India, there are number of counters for the reservation of the seats and one can easily make reservations and get tickets. Online railway reservation system, has described above, can lead to error free, secure, reliable and fast management system. It can assist the user to concentrate on their other activities rather to concentrate on the record keeping. Thus it will help organization it better utilization of resources. Administrator of the project, with the help of a password, can enter new train records, display all train records, modify train records and delete train records. The records of train includes its number, name, source, destination and days on which it is available, whereas record of train status includes dates for which tickets can be booked, total number of seats available, and number of seats already booked.

Basic implementation tools:

- HTML
- CSS
- JavaScript
- Bootstrap
- PHP
- My SQL
- VS Code

TABLE OF CONTENTS

CONTENTS	PAGE NO.
TITLE PAGE	1
CERTIFICATE	2-3
DECLARATION	4
ACKNOWLEDGEMENT	5
ABSTRACT	6
TABLE OF CONTENTS	7-8
CHAPTER I: INTRODUCTION	9-10
1.1 GENERAL OVERVIEW	
1.2 SURVEY	
1.3 OBJECTIVE	
1.4 ANALYSIS	
CHAPTER II: REQUIREMENTS	11
2.1 SOFTWARE REQUIREMENTS	
2.2 HARDWARE REQUIREMENTS	
2.3 FUNCTIONAL REQUIREMENTS	
CHAPTER III: DESIGNS (CONCEPTUAL)	12-14
3.1 ER DIAGRAM	
3.2 DATA FLOW DIAGRAM	
3.3 CLASS DIAGRAM	
3.4 USE CASE DIAGRAM	
CHAPTER IV: LANGUAGES AND TOOLS USED IN THE PROJECT	15-22
4.1 HYPER TEXT MARKUP LANGUAGE (HTML)	
4.2 CASCADING STYLE SHEETS (CSS)	
4.3 JAVASCRIPT	

4.4 APPLICATION PROGRAMMING INTERFACE (APIs)	
4.5 BOOTSTRAP	
4.6 PHP	
4.7 VS CODE	
CHAPTER V: INTERFACE AND CODE OF PROJECT	23-39
5.1 HOME PAGE	
5.2 LOGIN PAGE	
5.3 ADMIN PAGE	
5.4 STAFF PAGE	
5.5 USER PAGE	
5.6 DATABASE	
CHAPTER VI: CONCLUSION	40
CHAPTER VII: REFERENCES	41

CHAPTER I: INTRODUCTION

1.1 GENERAL OVERVIEW

Our website has various kinds of information that helps regarding booking of tickets via railways. Users will be able to search the train availability, the exact fare, the arrival and departure time of the train and after booking the ticket if the user want to cancel it then they can easily do it also.

1.2 SURVEY

Railway passengers frequently need to know about their ticket reservation status, ticket availability on a particular train or for a place, train arrival or departure details, special trains etc.. Customer information centers at the railway stations are unable to serve such queries at peak periods. The number of the reservation counters available to the passengers and customers are very less. On most of the reservation systems there are long queues, so it takes a long time for any individual to book the ticket. As now there are no call centers facilities available to solve the queries of the passengers. The online railway reservation system aims to develop a web application which aims at providing trains details, trains availability, as well as the facility to book ticket in online for customers. So, we thought of developing a web based application which would provide the users all these facilities from his terminal only as well as help them in booking their tickets. The application was to be divided into two parts namely the user part, the staff part and the administrator part. And each of these has their corresponding features. We decided to give the name of the website “ONLINE RAILWAY RESERVATION SYSTEM”. The online railway reservation system is developed by using PHP with MySQL as the backend.

1.3 OBJECTIVE

The objective of the online railway reservation system project is to design software to fully automate the process of issuing a railway ticket. That is:

- To create a database of the trains.
- To search the trains it's arrival and departure time, distance between source and destination.
- To check the availability of the ticket.
- To calculate fare.
- To book the ticket.
- To cancel the ticket if necessary.

1.4 ANALYSIS

Online railway reservation system is a online ticket booking website, which is capable of booking ticket and search the train availability. This website is mainly created to fulfill the following requirements, it comprises of the following properties:

- A central database that will store all information.
- An online website that will provide real-time information about the availability of tickets their prices.
- Every registered user is able to view his booking id that has been made in his/her name.
- Every guest user can search train availability, price of the ticket, arrival and departure, distance between source and destination etc.
- Every registered user has the facilities to print his ticket any time he wishes.
- Administration login:
 - In admin mode the administrator can make changes in train details.
 - He can also view all booking that has been made by different users.
- The booking window contains all the facilities at one place, the user can simply login to his account and can book his ticket.

CHAPTER II: REQUIREMENTS

2.1 SOFTWARE REQUIREMENTS

- Browser: Internet Explorer, Google Chrome
- Text Editor: Notepad, Visual Studio Code (Microsoft)
- Operating System: Any version of Windows
- Coding Language: HTML, CSS, JavaScript, Bootstrap and PHP
- Database: MySQL
- Package: XAMPP

2.2 HARDWARE REQUIREMENTS

- Processor: Intel Core i3 or above
- RAM: 512 MB or more
- Hard disk: 256 GB or more

2.3 FUNCTIONAL REQUIREMENTS

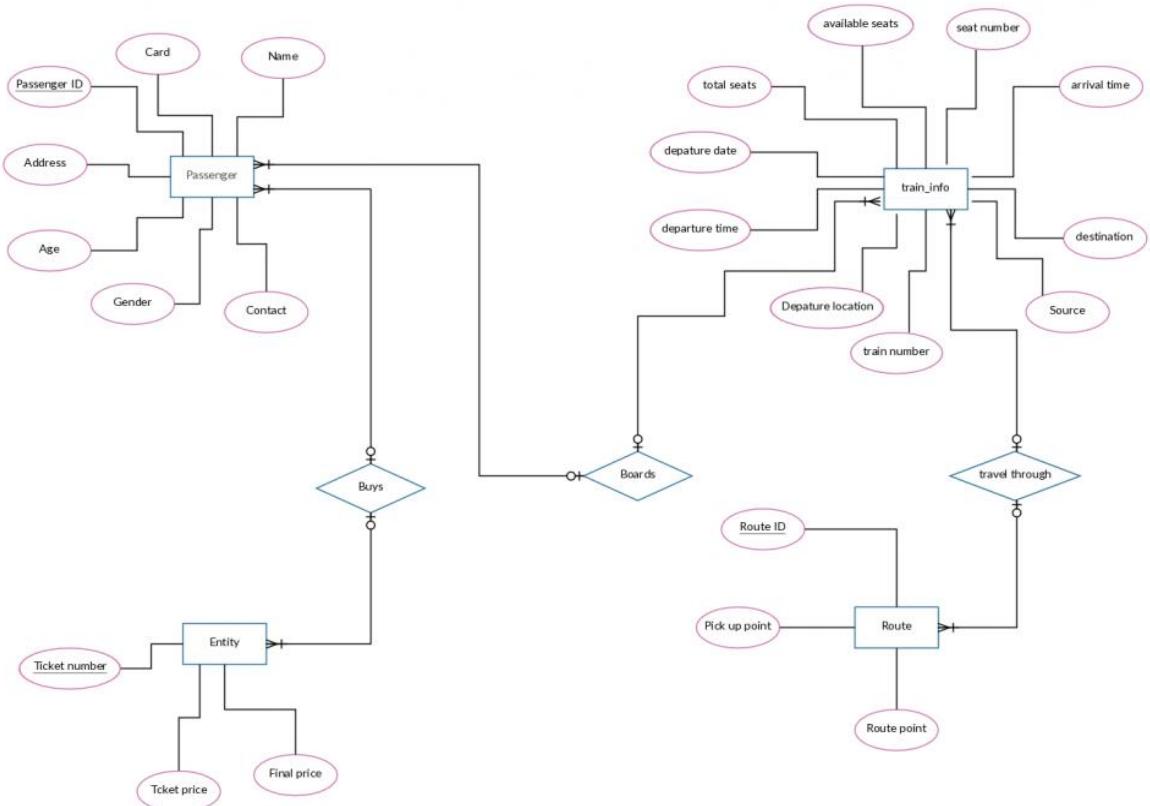
Functional requirements are responsible for the behaviour of your website and can vary as per the needs and business industry niche.

CHAPTER III: DESIGNS (CONCEPTUAL)

3.1 ER DIAGRAM

ER Diagram stands for Entity Relationship Diagram, also known as ERD is a diagram that displays the relationship of entity sets stored in a database. In other words, ER diagrams help to explain the logical structure of databases. ER diagrams are created based on three basic concepts: entities, attributes and relationships.

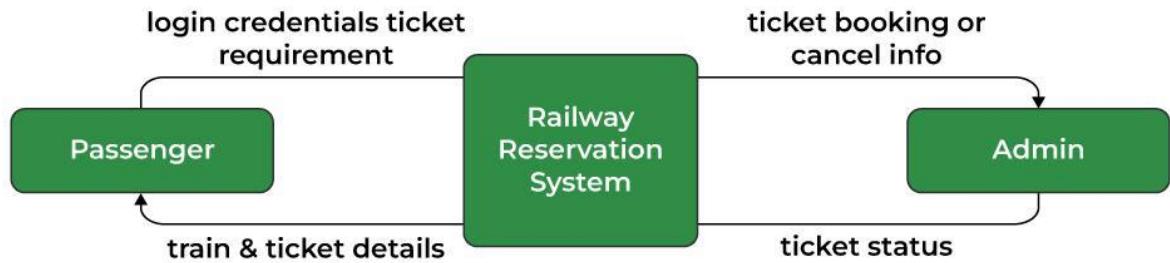
ER Diagrams contain different symbols that use rectangles to represent entities, ovals to define attributes and diamond shapes to represent relationships.



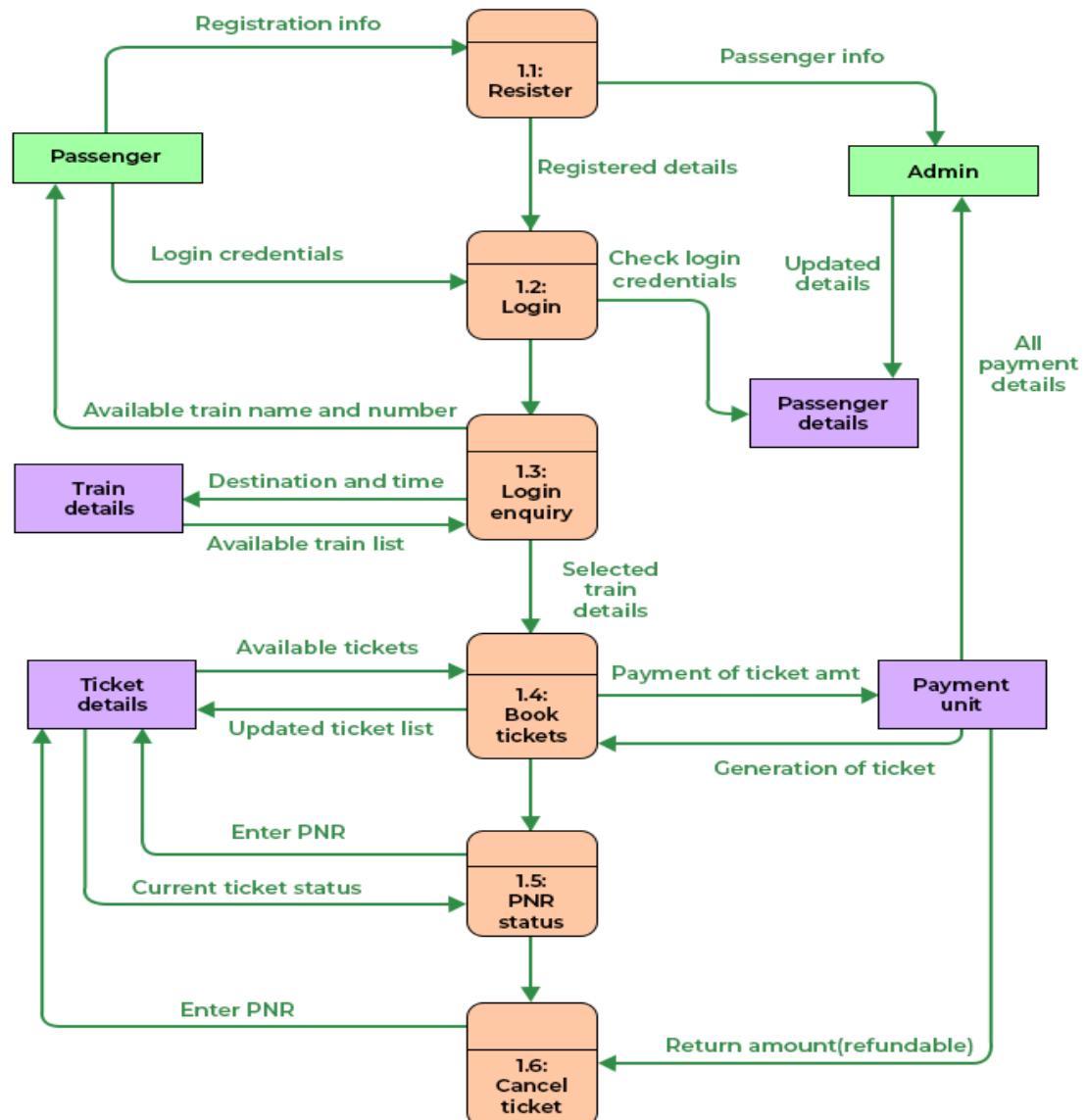
3.2 DATA FLOW DIAGRAM

This diagram represents various operations by dataflow movement.

Level 0 DFD:

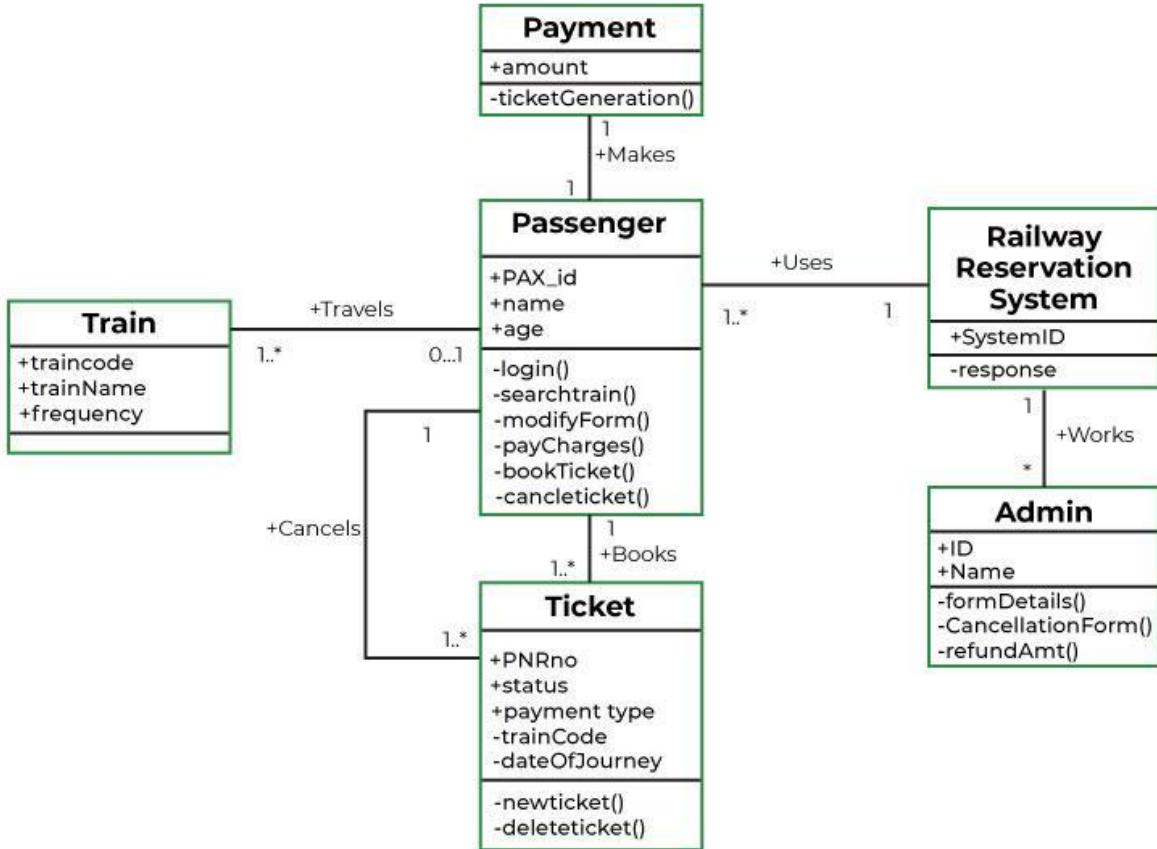


Level 1 DFD:

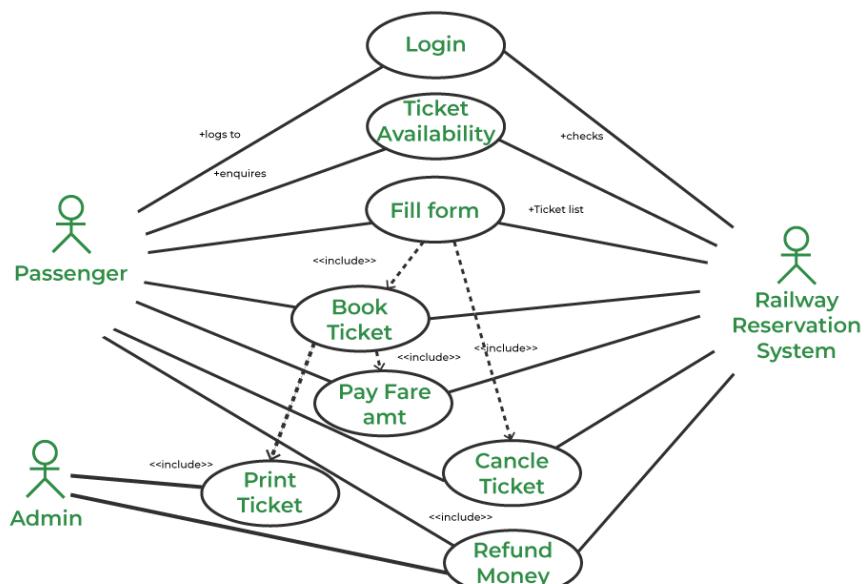


3.3 CLASS DIAGRAM

These diagrams describe the operation and attributes of a class with imposed constraints in the system.



3.4 USE CASE DIAGRAM



CHAPTER IV: LANGUAGES AND TOOLS USED IN THE PROJECT

4.1 HYPER TEXT MARKUP LANGUAGE (HTML)

HTML stands for **Hyper Text Markup Language**, which is the most widely used language on Web to develop web pages. HTML was created by Berners-Lee in late 1991 but "HTML 2.0" was the first standard HTML specification which was published in 1995. HTML 4.01 was a major version of HTML and it was published in late 1999. Though HTML 4.01 version is widely used but currently we are having HTML-5 version which is an extension to HTML 4.01, and this version was published in 2012.

WHY TO LEARN HTML?

Originally, HTML was developed with the intent of defining the structure of documents like headings, paragraphs, lists, and so forth to facilitate the sharing of scientific information between researchers. Now, HTML is being widely used to format web pages with the help of different tags available in HTML language.

HTML is must for students and working professionals to become a great Software Engineer specially when they are working in Web Development Domain. I will list down some of the key advantages of learning HTML:

- **Create Website** - You can create a website or customize an existing web template if you know HTML well.
- **Become a web designer** - If you want to start a carrier as a professional web designer, HTML and CSS designing is a must skill.
- **Understand web** - If you want to optimize your website, to boost its speed and performance, it is good to know HTML to yield best results.
- **Learn other languages** - Once you understand the basic of HTML then other related technologies like javascript, php, or angular are become easier to understand.

HELLO WORLD USING HTML

Just to give you a little excitement about HTML, I'm going to give you a small conventional HTML Hello World program,

```
<!DOCTYPE html>
<html>
  <head>
    <title>This is document title</title>
  </head>
```

```
<body>
  <h1>This is a heading</h1>
  <p>Hello World!</p>
</body>
</html>
```

APPLICATIONS OF HTML

As mentioned before, HTML is one of the most widely used language over the web. I'm going to list few of them here:

- **Web pages development** - HTML is used to create pages which are rendered over the web. Almost every page of web is having html tags in it to render its details in browser.
- **Internet Navigation** - HTML provides tags which are used to navigate from one page to another and is heavily used in internet navigation.
- **Responsive UI** - HTML pages now-a-days works well on all platform, mobile, tabs, desktop or laptops owing to responsive design strategy.
- **Offline support** - HTML pages once loaded can be made available offline on the machine without any need of internet.
- **Game development** - HTML5 has native support for rich experience and is now useful in gaming development arena as well.

4.2 CASCADING STYLE SHEETS (CSS)

CSS is used to control the style of a web document in a simple and easy way.

CSS is the acronym for "**Cascading Style Sheet**". This tutorial covers both the versions CSS1, CSS2 and CSS3, and gives a complete understanding of CSS, starting from its basics to advanced concepts.

WHY TO LEARN CSS?

Cascading Style Sheets, fondly referred to as CSS, is a simple design language intended to simplify the process of making web pages presentable.

CSS is must for students and working professionals to become a great Software Engineer specially when they are working in Web Development Domain. I will list down some of the key advantages of learning CSS:

- **Create Stunning Website** - CSS handles the look and feel part of a web page. Using CSS, you can control the color of the text, the style of fonts, the spacing between paragraphs, how columns are sized and laid out, what background images or colors are used, layout designs, variations in display for different devices and screen sizes as well as a variety of other effects.
- **Become a web designer** - If you want to start a career as a professional web designer, HTML and CSS designing is a must skill.

- **Control web** - CSS is easy to learn and understand but it provides powerful control over the presentation of an HTML document. Most commonly, CSS is combined with the markup languages HTML or XHTML.
- **Learn other languages** - Once you understand the basic of HTML and CSS then other related technologies like javascript, php, or angular are become easier to understand.

APPLICATIONS OF CSS

As mentioned before, CSS is one of the most widely used style language over the web. I'm going to list few of them here:

- **CSS saves time** - You can write CSS once and then reuse same sheet in multiple HTML pages. You can define a style for each HTML element and apply it to asmany Web pages as you want.
- **Pages load faster** - If you are using CSS, you do not need to write HTML tag attributes every time. Just write one CSS rule of a tag and apply it to all the occurrences of that tag. So less code means faster download times.
- **Easy maintenance** - To make a global change, simply change the style, and all elements in all the web pages will be updated automatically.
- **Superior styles to HTML** - CSS has a much wider array of attributes than HTML, so you can give a far better look to your HTML page in comparison to HTML attributes.
- **Multiple Device Compatibility** - Style sheets allow content to be optimized for more than one type of device. By using the same HTML document, different versions of a website can be presented for handheld devices such as PDAs and cell phones or for printing.
- **Global web standards** - Now HTML attributes are being deprecated and it is being recommended to use CSS. So its a good idea to start using CSS in all the HTML pages to make them compatible to future browsers.

4.3 JAVASCRIPT

JavaScript is a lightweight, interpreted programming language. It is designed for creating network-centric applications. It is complimentary to and integrated with Java. JavaScript is very easy to implement because it is integrated with HTML. It is open and cross-platform.

WHY TO LEARN JAVASCRIPT?

Javascript is must for students and working professionals to become a great Software Engineer specially when they are working in Web Development Domain. I will list down some of the key advantages of learning Javascript:

- Javascript is the most popular programming language in the world and that makes it a programmer's great choice. Once you learnt Javascript, it helps you developing great front-end as well as back-end software using different Javascript based frameworks like jQuery, Node.JS etc.
- Javascript is everywhere, it comes installed on every modern web browser and so to learn

Javascript you really do not need any special environment setup. For example: Chrome, Mozilla Firefox, Safari and every browser you know as of today, supports Javascript.

- Javascript helps you create really beautiful and crazy fast websites. You can develop your website with a console like look and feel and give your users the best Graphical User Experience.
- JavaScript usage has now extended to mobile app development, desktop app development, and game development. This opens many opportunities for you as Javascript Programmer.
- Due to high demand, there is tons of job growth and high pay for those who know JavaScript. You can navigate over to different job sites to see what having Javascript skills looks like in the job market.
- Great thing about Javascript is that you will find tons of frameworks and libraries already developed which can be used directly in your software development to reduce your time to market.

There could be 1000s of good reasons to learn Javascript Programming. But one thing for sure, to learn any programming language, not only Javascript, you just need to code, and code and finally code until you become expert.

There are many useful **Javascript frameworks** and libraries available:

- Angular
- React
- jQuery
- Vue.js
- Ext.js
- Ember.js
- Meteor
- Mithril
- Node.js
- Polymer
- Aurelia
- Backbone.js

It is really impossible to give a complete list of all the available Javascript frameworks and libraries. The Javascript world is just too large and too much new is happening.

APPLICATIONS OF JAVASCRIPT PROGRAMMING

As mentioned before, Javascript is one of the most widely used programming languages (Front-end as well as Back-end). It has its presence in almost every area of software development. I'm going to list few of them here:

- **Client-side validation** - This is really important to verify any user input before submitting it to the server and Javascript plays an important role in validating those inputs at front-end itself.
- **Manipulating HTML Pages** - Javascript helps in manipulating HTML page on the fly. This helps in adding and deleting any HTML tag very easily using Javascript and modify your HTML to change its look and feel based on different devices and requirements.
- **User Notifications** - You can use Javascript to raise dynamic pop-ups on the webpages to give different types of notifications to your website visitors.
- **Back-end Data Loading** - Javascript provides Ajax library which helps in loading back-

end data while you are doing some other processing. This really gives an amazing experience to your website visitors.

- **Presentations** - JavaScript also provides the facility of creating presentations which gives website look and feel. JavaScript provides RevealJS and BespokeJS libraries to build a web-based slide presentations.
- **Server Applications** - Node JS is built on Chrome's Javascript runtime for building fast and scalable network applications. This is an event based library which helps in developing very sophisticated server applications including WebServers.

This list goes on, there are various areas where millions of software developers are happily using Javascript to develop great websites and others softwares.

4.4 APPLICATION PROGRAMMING INTERFACE (APIs)

OVERVIEW

API stands for **Application Programming Interface**, which is a set of definitions and protocols for building and integrating application software.

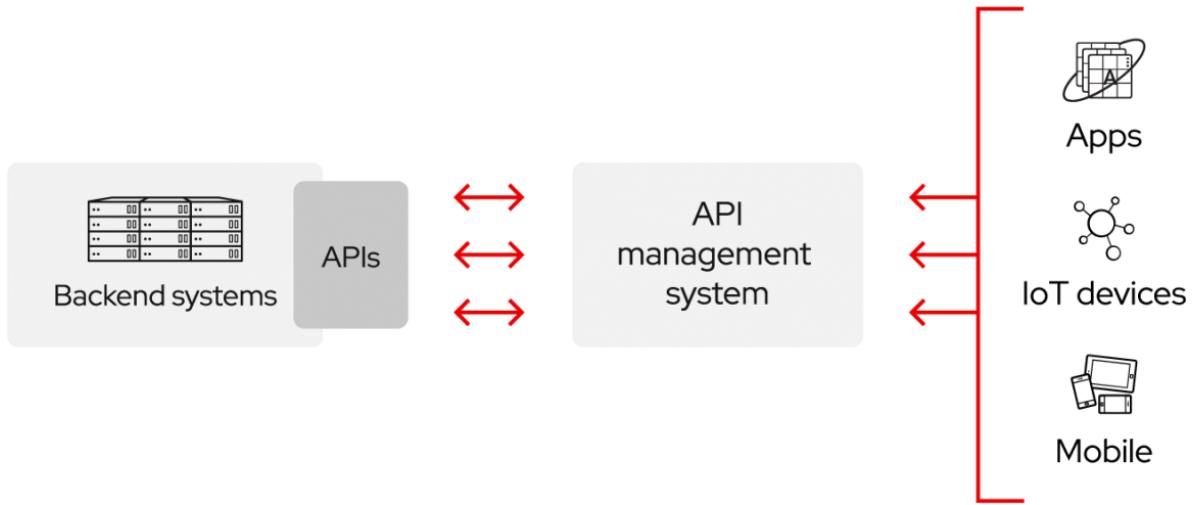
HOW DO APIs WORK?

APIs let your product or service communicate with other products and services without having to know how they're implemented. This can simplify app development, saving time and money. When you're designing new tools and products—or managing existing ones—APIs give you flexibility; simplify design, administration and use; and provide opportunities for innovation.

APIs are sometimes thought of as contracts, with documentation that represents an agreement between parties: If party 1 sends a remote request structured a particular way, this is how party 2's software will respond.

Because APIs simplify how developers integrate new application components into an existing architecture, they help business and IT teams collaborate. Business needs often change quickly in response to ever shifting digital markets, where new competitors can change a whole industry with a new app. In order to stay competitive, it's important to support the rapid development and deployment of innovative services. Cloud-native application development is an identifiable way to increase development speed and it relies on connecting a microservices application architecture through APIs.

APIs are a simplified way to connect your own infrastructure through cloud-native app development, but they also allow you to share your data with customers and other external users. Public APIs represent unique business value because they can simplify and expand how you connect with your partners, as well as potentially monetize your data (the Google Maps API is a popular example).



For example, imagine a book-distributing company. The book distributor could give its customers a cloud app that lets bookstore clerks check book availability with the distributor. This app could be expensive to develop, limited by platform, and require long development times and ongoing maintenance.

Alternatively, the book distributor could provide an API to check stock availability. There are several benefits to this approach:

- Letting customers access data via an API helps them aggregate information about their inventory in a single place.
- The book distributor can make changes to its internal systems without impacting customers, so long as the behavior of the API doesn't change.
- With a publicly available API, developers working for the book distributor, book sellers or third parties could develop an app to help customers find the books they're looking for. This could result in higher sales or other business opportunities.

In short, APIs let you open up access to your resources while maintaining security and control. How you open access and to whom is up to you. API security is all about good API management, which includes the use of an API gateway. Connecting to APIs, and creating applications that consume the data or functionality exposed by APIs, can be done with a distributed integration platform that connects everything—including legacy systems and the Internet of Things (IoT).

4.5 BOOTSTRAP

Bootstrap is a free and open-source tool collection for creating responsive websites and web applications. It is the most popular HTML, CSS, and JavaScript framework for developing responsive, mobile-first websites. Nowadays, the websites are perfect for all browsers (IE, Firefox, and Chrome) and for all sizes of screens (Desktop, Tablets, Phablets, and Phones). All thanks to Bootstrap developers – Mark Otto and Jacob Thornton of Twitter, though it was later declared to be an open-source project.

WHY WE USE BOOTSTRAP?

By using this framework we can easily manipulate the styling of any web page, like fontstyle, text color, background color, flex, grid system, etc. Bootstrap Version 4 & Version5 are the most popular versions. There are lots of other CSS frameworks like Tailwind CSS, Bulma, and Foundation but among them, this framework is the most popular because of below mentioned features:

- ❖ It is Faster and Easier way for Web-Development.
- ❖ It creates Platform-independent web-pages.
- ❖ It creates Responsive Web-pages.
- ❖ It designs responsive web pages for mobile devices too.

4.6 PHP

The **Hypertext Preprocessor (PHP)** is a programming language that allows web developers to create dynamic content that interacts with databases. PHP is basically used for developing web based software applications.

WHY TO LEARN PHP?

PHP started out as a small open source project that evolved as more and more people found out how useful it was. Rasmus Lerdorf unleashed the first version of PHP way back in 1994.

PHP is must for students and working professionals to become a great Software Engineer specially when they are working in Web Development Domain. I will list down some of the key advantages of learning PHP:

- ❖ PHP is a recursive acronym for "PHP: Hypertext Preprocessor".
- ❖ PHP is a server side scripting language that is embedded in HTML. It is used to manage dynamic content, databases, session tracking, even build entire e-commerce sites.
- ❖ It is integrated with a number of popular databases, including MySQL, PostgreSQL, Oracle, Sybase, Informix, and Microsoft SQL Server.
- ❖ PHP is pleasingly zippy in its execution, especially when compiled as an Apache module on the Unix side. The MySQL server, once started, executes even very complex queries with huge result sets in record-setting time.
- ❖ PHP supports a large number of major protocols such as POP3, IMAP, and LDAP. PHP4 added support for Java and distributed object architectures (COM and CORBA), making n-tier development a possibility for the first time.
- ❖ PHP is forgiving: PHP language tries to be as forgiving as possible.
- ❖ PHP Syntax is C-Like.

4.7 VS CODE

Visual Studio Code is a code editor in layman's terms. Visual Studio Code is a free-editor that helps the programmer write code, helps in debugging and corrects the code using the intellisense method. In normal terms, it facilitates users to write the code in an easy manner. Many people say that it is half of an IDE and an editor, but the decision is up to the coders. Any program/software that we see or use works on the code that runs in the background. Traditionally coding was used to do in the traditional editors or even in the basic editors like notepad! These editors used to provide basic support to the coders.

Some of them were so basic that it was very difficult in writing basic English level programs in them. As time went by, some programming languages needed a specific framework and support for further coding and development it, which was not possible using these editors. VI Editor, Sublime Text Editor, is one of the many kinds of editors that came into existence. The most prominent and which supports almost every coding language is visual studio code. Its features let the user modify the editor as per the usage, which means the user is able to download the libraries from the internet and integrate it with the code as per his requirements.

ADVANTAGE OF VS CODE

- ❖ Cross-platform support:
 - Windows
 - Linux
 - Mac
- ❖ Light-weight
- ❖ Robust Architecture
- ❖ IntelliSense
- ❖ Freeware: Free of Cost- probably the best feature of all for all the programmers out there, even more for the organizations.
- ❖ Many users will use it or might have used it for desktop applications only, but it also provides great tool support for Web Technologies like; HTML, CSS, JSON.

CHAPTER V: INTERFACE AND CODE OF PROJECT

5.1 HOME PAGE



Welcome

Online Railway Reservation System is developed for to automate the railways reservation system. It includes modules required to successfully operate railways reversion process smoothly. It has train master to add modified train information, train schedule to enter train journey details include all the station name, arrival time and departure time. It includes automatic fair calculation as per the distance between two stations. Reservation module consists of automatic seat number and coaches no allocation system. Daily schedule for updating of not conform seat and coach no. All master like train master, Train schedule, reservation fees, cancellation fees, charges can be modified individually from front end and changes reflect in all modules immediately. Therefore proposed "Online Railway Reservation System" has been designed to automate the process of railway for ticket reservation and back office activities. System can make the daily activities efficient and provide the fast response.

The "Online Railway Reservation System" has been developed to override the problems prevailing in the practicing manual system. This software is supported to eliminate and in some cases reduce the hardships faced by this existing system. Moreover this system is designed for a particular need of a company to carry out operations in a smooth and effective manner. The application is reduced has much as possible to avoid errors while entering the data. It also provides error messages while entering invalid data. No formal knowledge is needed for the user to use this system. Thus by this all it proves it is user friendly. Railway reservation system, has described, can lead to error free, and secure, reliable and fast managing system. It can assist the user to concentrate on the other activities rather to concentrate on the record keeping. Thus it will help organization in better utilization of resources.

Every organization, whether big or small, has challenges to overcome and managing the information of ticket, train, customer, seat, payment. Every Railway reservation system has different train needs, therefore we designed exclusive employee management systems that are adopted to your managerial requirements.

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Code	Schedule	Route	Train	Slot/Rate	
202201-0001	Everyday 07:00 AM	From: Station 1 To: Station 2	TIR-1001 - Train 101	First Class: 50.00 Economy: 25.00	<input type="button" value="Book >"/>
202201-0003	Jan 07, 2022 08:00 AM	From: Station 2 To: Station 5	TIR-1002 - Train 102	First Class: 250.00 Economy: 170.00	<input type="button" value="Book >"/>
202201-0002	Everyday 08:30 AM	From: Station 1 To: Station 3	TIR-1001 - Train 101	First Class: 100.00 Economy: 75.00	<input type="button" value="Book >"/>
202301-0001	Jan 07, 2023 02:08 PM	From: Station 2 To: Station 9	TIR-1002 - Train 102	First Class: 400.00 Economy: 250.00	<input type="button" value="Book >"/>

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About

The "Online Railway Reservation System" facilitates the passengers to enquire about the trains available on the basis of source and destination, booking and cancellation of tickets, enquiry about the status of the booked ticket, etc. The aim of case study is to design and develop a data base maintaining records of different trains, train status and passengers. This project contains introduction to the railways reservation system. It is the computerized system of reserving the seats of train seats in advance. It is mainly used for a long route. Online reservation has made the process for the reservation of seats very much easier than ever before.

In our country India, there are number of counters for the reservation of the seats and one can easily make reservations and get tickets. Railway reservation system, has described above, can lead to error free, secure, reliable and fast management system. It can assist the user to concentrate on their other activities rather to concentrate on the record keeping. Thus it will help organization better utilization of resources. Administrator of the project, with the help of a password, can enter new train record, display all train records, modify train records and delete train records. The record of train includes its number, name, source, destination, and days on which it is available, whereas record of train status includes dates for which tickets can be booked, total number of seats available, and number of seats already booked.

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ORRS (by: Sudhanshu & Rajul) v1.0

09794940301 Login

ORRS Home Schedules About Us Contact Us

Contact Information

Email info@railways.com

Contact 09794940301

Location XYZ Street, Lucknow, India, 226021

Message Us

Sudhanshu

Full Name

Email

Message

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```
config.php X
config.php
1 <?php
2 ob_start();
3 ini_set('date.timezone','Asia/Manila');
4 date_default_timezone_set('Asia/Manila');
5 session_start();
6
7 require_once('initialize.php');
8 require_once('classes/DBConnection.php');
9 require_once('classes/SystemSettings.php');
10 $db = new DBConnection;
11 $conn = $db->conn;
12
13 function redirect($url=''){
14     if(!empty($url))
15         echo '<script>location.href="'.base_url .'$url."</script>';
16 }
17 function validate_image($file){
18     if(empty($file)){
19         // exit;
20         $ex = explode('?',$file);
21         $file = $ex[0];
22         $param = !isset($ex[1]) ? '?' . $ex[1] : '';
23         if(is_file(base_app.$file)){
24             return base_url.$file.$param;
25         }else{
26             return base_url.'dist/img/no-image-available.png';
27         }
28     }else{
29         return base_url.'dist/img/no-image-available.png';
30     }
31 }
32 function isMobileDevice(){
33     $aMobileUA = array(
34         '/iphone/i' => 'iPhone',
35         '/ipod/i' => 'iPod',
36         '/ipad/i' => 'iPad',
37         '/android/i' => 'Android',
38         '/blackberry/i' => 'BlackBerry',
39         '/webos/i' => 'Mobile'
40     );
41
42     //Return true if Mobile User Agent is detected
43     foreach($aMobileUA as $sMobileKey => $sMobileOS){
44         if(preg_match($sMobileKey, $_SERVER['HTTP_USER_AGENT'])){
45             return true;
46         }
47     }
48     //Otherwise return false..
49     return false;
50 }
51 ob_end_flush();
52 ?>
```

```
home.php X ...  
home.php  
1 <style>  
2     .car-cover{  
3         width:10em;  
4     }  
5     .car-item .col-auto{  
6         max-width: calc(100% - 12em) !important;  
7     }  
8     .car-item:hover{  
9         transform:translate(0, -4px);  
10        background:#a5a5a521;  
11    }  
12    .banner-img-holder{  
13        height:25vh !important;  
14        width: calc(100%);  
15        overflow: hidden;  
16    }  
17    .banner-img{  
18        object-fit:scale-down;  
19        height: calc(100%);  
20        width: calc(100%);  
21        transition:transform .3s ease-in;  
22    }  
23    .car-item:hover .banner-img{  
24        transform:scale(1.3)  
25    }  
26    .welcome-content img{  
27        margin:.5em;  
28    }  
29 </style>  
30 <div class="col-lg-12 py-5">  
31     <div class="contain-fluid">  
32         <div class="card card-outline card-dark shadow rounded-0">  
33             <div class="card-body rounded-0">  
34                 <div class="container-fluid">  
35                     <h3 class="text-center">Welcome</h3>  
36                     <hr>  
37                     <div class="welcome-content">  
38                         <?php include("welcome.html") ?>  
39                     </div>  
40                     </div>  
41                 </div>  
42             </div>  
43         </div>  
44     </div>
```

5.2 LOGIN PAGE



```
(Login.php)
1  <?php
2  require_once '../config.php';
3  class Login extends DBConnection {
4      private $settings;
5      public function __construct(){
6          global $_settings;
7          $this->settings = $_settings;
8
9          parent::__construct();
10         ini_set('display_error', 1);
11     }
12     public function __destruct(){
13         parent::__destruct();
14     }
15     public function index(){
16         echo "<h1>Access Denied</h1> <a href='".$base_url."'>Go Back.</a>";
17     }
18     public function login(){
19         extract($_POST);
20         $stmt = $this->conn->prepare("SELECT * from users where username = ? and password = ? ");
21         $pw = md5($password);
22         $stmt->bind_param('ss', $username, $pw);
23         $stmt->execute();
24         $qry = $stmt->get_result();
25         if($qry->num_rows > 0){
26             $res = $qry->fetch_array();
27             if($res['status'] != 1){
28                 return json_encode(array('status'=>'notverified'));
29             }
30             foreach($res as $k => $v){
31                 if(!is_numeric($k) && $k != 'password'){
32                     $this->settings->set_userdata($k,$v);
33                 }
34             }
35             $this->settings->set_userdata('login_type',1);
36             return json_encode(array('status'=>'success'));
37         }else{
38     }
```

```

38     return json_encode(array('status'=>'incorrect','error'=>$this->conn->error));
39 }
40 }
41 public function logout(){
42     if($this->settings->sess_des()){
43         redirect('admin/login.php');
44     }
45 }
46 function client_login(){
47     extract($_POST);
48     $stmt = $this->conn->prepare("SELECT *,concat(lastname,' ',firstname,' ',middlename) as fullname from client_list where em
49     $pw = md5($password);
50     $stmt->bind_param('ss',$email,$pw);
51     $stmt->execute();
52     $qry = $stmt->get_result();
53     if($this->conn->error){
54         $resp['status'] = 'failed';
55         $resp['msg'] = "An error occurred while fetching data. Error:". $this->conn->error;
56     }else{
57         if($qry->num_rows > 0){
58             $res = $qry->fetch_array();
59             if($res['status'] == 1){
60                 foreach($res as $k => $v){
61                     $this->settings->set_userdata($k,$v);
62                 }
63                 $this->settings->set_userdata('login_type',2);
64                 $resp['status'] = 'success';
65             }else{
66                 $resp['status'] = 'failed';
67                 $resp['msg'] = "Your Account is not verified yet.";
68             }
69         }else{
70             $resp['status'] = 'failed';
71             $resp['msg'] = "Invalid email or password.";
72         }
73     }
74 }
75     return json_encode($resp);
76 }
77 public function client_logout(){
78     if($this->settings->sess_des()){
79         redirect('./login.php');
80     }
81 }
82 }
83 $action = !isset($_GET['f']) ? 'none' : strtolower($_GET['f']);
84 $auth = new Login();
85 switch ($action) {
86     case 'login':
87         echo $auth->login();
88         break;
89     case 'logout':
90         echo $auth->logout();
91         break;
92     case 'client_login':
93         echo $auth->client_login();
94         break;
95     case 'client_logout':
96         echo $auth->client_logout();
97         break;
98     default:
99         echo $auth->index();
100        break;
101    }
102 }
103

```

5.3 ADMIN PAGE

Welcome to Online Railway Reservation System - Admin Panel

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The dashboard displays the following statistics:

- Total Trains: 5
- Daily Schedules: 2
- One-Time Schedules: 2
- Reserved Passengers: 2

List of Reservations

Seat #	Schedule	Schedule Code	Passenger	Group	Action
E-001	2022-01-07 08:00	202201-0003	Lucky Singh	Economy	Action ▾
E-001	2022-01-07 07:00	202201-0001	Shiva Pandey	Economy	Action ▾
E-002	2022-01-07 08:00	202201-0003	Priya Kumari	Economy	Action ▾
E-002	2022-01-07 07:00	202201-0001	Sanjana Mishra	Economy	Action ▾
FC-001	2023-01-04 07:00	202201-0001	Anurag Sharma	First Class	Action ▾
FC-001	2023-01-10 07:00	202201-0001	Shivam Verma	First Class	Action ▾
FC-001	2022-01-07 08:00	202201-0003	Suraj Yadav	First Class	Action ▾
FC-001	2022-01-07 07:00	202201-0001	Ajay Singh	First Class	Action ▾
FC-002	2022-01-07 08:00	202201-0003	Ram Gupta	First Class	Action ▾
FC-003	2022-01-07 07:00	202201-0001	Anil Kumar	First Class	Action ▾

Online Railway Reservation System - Admin

ORRS Administrator

List of Inquiries

#	Inquirer	Email	Message	Status	Action
1	Shivansh	shivansh@gmail.com	Payment related issue	Read	Action ▾
2	Manish Kumar	mkumar@sample.com	Sample Inquiry only	Read	Action ▾

Showing 1 to 2 of 2 entries

Previous 1 Next

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Online Railway Reservation System - Admin

ORRS Administrator

List of Trains

#	Date Created	Train #	Name	Capacity	Action
1	2022-01-05 11:05	TIR-1001	Train 101	First Class: 100 Economy: 200	Action ▾
2	2022-01-05 11:11	TIR-1002	Train 102	First Class: 100 Economy: 200	Action ▾
3	2022-01-05 11:11	TIR-1003	Train 103	First Class: 150 Economy: 300	Action ▾
4	2022-01-05 11:12	TIR-1004	Train 104	First Class: 150 Economy: 300	Action ▾
5	2022-12-31 23:50	TIR-1005	Train 105	First Class: 250 Economy: 320	Action ▾

Showing 1 to 5 of 5 entries

Previous 1 Next

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Online Railway Reservation System - Admin

ORRS Administrator

List of Schedules

Daily Schedules		One-Time Schedules			
Show	entries				
Code	Schedule	Route	Train	Fare/Capacity	Action
202201-0001	Everyday 07:00 AM	From: Station 1 To: Station 2	TIR-1001 - Train 101	First Class: 100 ₹ 50.00 Economy: 200 ₹ 25.00	Action ▾
202201-0002	Everyday 08:30 AM	From: Station 1 To: Station 3	TIR-1001 - Train 101	First Class: 100 ₹ 100.00 Economy: 200 ₹ 75.00	Action ▾

Showing 1 to 2 of 2 entries

Previous 1 Next

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List of System Users

#	Avatar	Name	Username	User Type	Action
1		Risabh Singh	risabh	Staff	Action ▾
2		Samayra Jain	samaj	Staff	Action ▾

Showing 1 to 2 of 2 entries

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System Information

System Name
Online Railway Reservation System

System Short Name
ORRS

Welcome Content

Online Railway Reservation System is developed for to automate the railways reservation system. It includes modules required to successfully operate railways reversion process smoothly. It has train master to add modified train information, train schedule to enter train journey details include all the station name, arrival time and departure time. It includes automatic fair calculation as per the distance between two stations. Reservation module consists of automatic seat number and coaches no allocation system. Daily schedule for updating of not conform seat and coach no. All master like train master, Train schedule, reservation fees, cancellation fees, charges can be modified individually from front end and changes reflect in all modules immediately. Therefore proposed "Online Railway Reservation System" has been designed to automate the process of railway for ticket reservation and back office activities. System can make the daily activities efficient and provide the fast response.

The "Online Railway Reservation System" has been developed to override the problems prevailing in the practicing manual system. This software is supported to eliminate and in some cases reduce the hardships faced by this existing system. Moreover this system is designed for a particular need of a company to carry out operations in a smooth and effective manner. The application is reduced has much as possible to avoid errors while entering the data. It also provides error messages while entering invalid data. No formal knowledge is needed for the user to use this system. Thus by this all it proves it is user friendly. Railway reservation system, has described, can lead to error free, and secure, reliable and fast managing system. It can assist the user to concentrate on the other activities rather to concentrate on the record keeping. Thus it will help organization in better utilization of resources.

```

navigation.php X
admin > inc > navigation.php
1  </style>
2  <!-- Main Sidebar Container -->
3  <aside class="main-sidebar sidebar-dark-primary elevation-4 sidebar-no-expand bg-gradient-black">
4      <!-- Brand Logo -->
5      <a href="php echo base_url ?admin" class="brand-link bg-transparent text-sm border-info shadow-sm bg-primary">
6          info('short_name') ?></span>
8      </a>
9      <!-- Sidebar -->
10     <div class="sidebar os-host os-theme-light os-host-overflow os-host-overflow-y os-host-resize-disabled os-host-transition os-host-resize-observer-host observed">
11         <div class="os-resize-observer" style="left: 0px; right: auto;"></div>
12     </div>
13     <div class="os-size-auto-observer observed" style="height: calc(100% + 1px); float: left;">
14         <div class="os-resize-observer"></div>
15     </div>
16     <div class="os-content-glue" style="margin: 0px -8px; width: 249px; height: 646px;"></div>
17     <div class="os-padding">
18         <div class="os-viewport os-viewport-native-scrollbars-invisible" style="overflow-y: scroll;">
19             <div class="os-content" style="padding: 0px 8px; height: 100%; width: 100%;">
20                 <!-- Sidebar user panel (optional) -->
21                 <div class="clearfix"></div>
22                 <!-- Sidebar Menu -->
23                 <nav class="mt-4">
24                     <ul class="nav nav-pills nav-sidebar flex-column text-sm nav-compact nav-flat nav-child-indent nav-collapse-hide">
25                         <li class="nav-item dropdown">
26                             <a href="/" class="nav-link nav-home">
27                                 <i class="nav-icon fas fa-tachometer-alt"></i>
28                                 <p>
29                                     | Dashboard
30                                 </p>
31                             </a>
32                         </li>
33                         <li class="nav-item">
34                             <a href="php echo base_url ?admin/?page=reservations" class="nav-link nav-reservations">
35                                 <i class="nav-icon fas fa-ticket-alt"></i>
36                                 <p>
37                                     | Reservations
38                                 </p>
39                             </a>
40                         </li>
41                         <li class="nav-item">
42                             <a href="php echo base_url ?admin/?page=inquiries" class="nav-link nav-inquiries">
43                                 <i class="nav-icon fas fa-question-circle"></i>
44                                 <p>
45                                     | Inquiries
46                                 </p>
47                             </a>
48                         </li>
49                         <?php if($_settings->userdata('type') == 1): ?>
50                         <li class="nav-header">Maintenance</li>
51                         <li class="nav-item dropdown">
52                             <a href="php echo base_url ?admin/?page=trains" class="nav-link nav-trains">
53                                 <i class="nav-icon fas fa-train"></i>
54                                 <p>
55                                     | Train List
56                                 </p>
57                             </a>
58                         </li>
59                         <li class="nav-item dropdown">
60                             <a href="php echo base_url ?admin/?page=schedules" class="nav-link nav-schedules">
61                                 <i class="nav-icon fas fa-calendar-day"></i>
62                                 <p>
63                                     | Schedule List
64                                 </p>
65                             </a>
66                         </li>
67                         <li class="nav-item dropdown">
68                             <a href="php echo base_url ?admin/?page=user/list" class="nav-link nav-user_list">
69                                 <i class="nav-icon fas fa-users-cog"></i>
70                                 <p>
71                                     | User List
72                                 </p>
73                             </a>
74                         </li>

```

```

75      </li>
76      <li class="nav-item dropdown">
77          <a href="php echo base_url ?admin/?page=system_info" class="nav-link nav-system_info">
78              <i class="nav-icon fas fa-cogs"></i>
79              <p>
80                  Settings
81              </p>
82          </a>
83      </li>
84  <?php endif; ?>
85
86      </ul>
87  <! -- /.sidebar-menu -->
88  </div>
89  </div>
90  </div>
91  <div class="os-scrollbar os-scrollbar-horizontal os-scrollbar-unusable os-scrollbar-auto-hidden">
92      <div class="os-scrollbar-track">
93          <div class="os-scrollbar-handle" style="width: 100%; transform: translate(0px, 0px);"></div>
94      </div>
95  </div>
96  <div class="os-scrollbar os-scrollbar-vertical os-scrollbar-auto-hidden">
97      <div class="os-scrollbar-track">
98          <div class="os-scrollbar-handle" style="height: 55.017%; transform: translate(0px, 0px);"></div>
99      </div>
100  </div>
101  <div class="os-scrollbar-corner"></div>
102  </div>
103  <! -- /.sidebar -->
104  </aside>
105  <script>
106      | var page;
107  $(document).ready(function(){
108      page = '<?php echo isset($_GET['page']) ? $_GET['page'] : 'home' ?>';
109      page = page.replace(/\\/g,'_');
110
111      if($('.nav-link.nav-+page').length > 0){
112          $('.nav-link.nav-+page').addClass('active')
113          if($('.nav-link.nav-+page').hasClass('tree-item') == true){
114              $('.nav-link.nav-+page').closest('.nav-treeview').siblings('a').addClass('active')
115              $('.nav-link.nav-+page').closest('.nav-treeview').parent().addClass('menu-open')
116          }
117      }
118      if($('.nav-link.nav-+page').hasClass('nav-is-tree') == true){
119          $('.nav-link.nav-+page').parent().addClass('menu-open')
120      }
121  }
122
123
124  $('#receive-nav').click(function(){
125      $('#uni_modal').on('shown.bs.modal',function(){
126          $('#find-transaction [name="tracking_code"]').focus();
127      })
128      uni_modal("Enter Tracking Number","transaction/find_transaction.php");
129  })
130
131  </script>

```

5.4 STAFF PAGE

Welcome to Online Railway Reservation System - Admin Panel

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List of Reservations

Seat #	Schedule	Schedule Code	Passenger	Group	Action
E-001	2022-01-07 08:00	202201-0003	Lucky Singh	Economy	Action ▾
E-001	2022-01-07 07:00	202201-0001	Shiva Pandey	Economy	Action ▾
E-002	2022-01-07 08:00	202201-0003	Priya Kumari	Economy	Action ▾
E-002	2022-01-07 07:00	202201-0001	Sanjana Mishra	Economy	Action ▾
FC-001	2023-01-04 07:00	202201-0001	Anurag Sharma	First Class	Action ▾
FC-001	2023-01-10 07:00	202201-0001	Shivam Verma	First Class	Action ▾
FC-001	2022-01-07 08:00	202201-0003	Suraj Yadav	First Class	Action ▾
FC-001	2022-01-07 07:00	202201-0001	Ajay Singh	First Class	Action ▾
FC-002	2022-01-07 08:00	202201-0003	Ram Gupta	First Class	Action ▾
FC-003	2022-01-07 07:00	202201-0001	Anil Kumar	First Class	Action ▾

List of Inquiries

#	Inquirer	Email	Message	Status	Action
1	Shivansh	shivansh@gmail.com	Payment related issue	Read	Action ▾
2	Manish Kumar	mkumar@sample.com	Sample Inquiry only	Read	Action ▾

Showing 1 to 2 of 2 entries

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```

index.php
admin > reservations > index.php
1  <div class="card card-outline card-primary">
2   |   <div class="card-header">
3   |   |   <h3 class="card-title">List of Reservations</h3>
4   |   </div>
5   |   <div class="card-body">
6   |   |   <div class="container-fluid">
7   |   |   |   <table class="table table-hover table-striped table-bordered">
8   |   |   |   |   <colgroup>
9   |   |   |   |   |   <col width="15%">
10  |   |   |   |   |   <col width="20%">
11  |   |   |   |   |   <col width="20%">
12  |   |   |   |   |   <col width="20%">
13  |   |   |   |   |   <col width="15%">
14  |   |   |   |   |   <col width="10%">
15  |   |   |   </colgroup>
16  |   |   |   <thead>
17  |   |   |   |   <tr>
18  |   |   |   |   |   <th>Seat #</th>
19  |   |   |   |   |   <th>Schedule</th>
20  |   |   |   |   |   <th>Schedule Code</th>
21  |   |   |   |   |   <th>Passenger</th>
22  |   |   |   |   |   <th>Group</th>
23  |   |   |   |   |   <th>Action</th>
24  |   |   |   </tr>
25  |   |   </thead>
26  |   |   <tbody>
27  |   |   <?php
28  |   |   |   $i = 1;
29  |   |   |   $qry = $conn->query("SELECT r.* , s.code AS sched_code FROM `reservation_list` r INNER JOIN `schedule_list` s ON r.schedule_id = s.id");
30  |   |   |   while($row = $qry->fetch_assoc()):
31  |   |   |   ?>
32  |   |   |   <tr>
33  |   |   |   |   <td><?php echo $row['seat_num'] ?></td>
34  |   |   |   |   <td class=""><?php echo date("Y-m-d H:i", strtotime($row['schedule'])) ?></td>
35  |   |   |   |   <td><?php echo ($row['sched_code']) ?></td>
36  |   |   |   |   <td class=""><?php echo ucwords($row['firstname']).' '. $row['middlename']. ' '.$row['lastname'] ?></td>
37  |   |   |   <td class="text-center">
38  |   |   |   |   <?php
39  |   |   |   |   |   switch ($row['seat_type']){
40  |   |   |   |   |   |   case 1:
41  |   |   |   |   |   |   echo '<span class="rounded-pill badge badge-warning col-6">First Class</span>';
42  |   |   |   |   |   |   break;
43  |   |   |   |   |   |   case 2:
44  |   |   |   |   |   |   echo '<span class="rounded-pill badge badge-success col-6">Economy</span>';
45  |   |   |   |   |   |   break;
46  |   |   |   |   |   }
47  |   |   |   |   ?>
48  |   |   |   </td>
49  |   |   |   <td align="center">
50  |   |   |   |   <button type="button" class="btn btn-flat btn-default btn-sm dropdown-toggle dropdown-icon" data-toggle="dropdown" data-target="#action">
51  |   |   |   |   |   Action
52  |   |   |   |   |   <span class="sr-only">Toggle Dropdown</span>
53  |   |   |   |   </button>
54  |   |   |   |   <div class="dropdown-menu" data-target="#action">
55  |   |   |   |   <a class="dropdown-item view_data" href="javascript:void(0)" data-id=<?php echo $row['id'] ?>">View Details
56  |   |   |   |   <div class="dropdown-divider"></div>
57  |   |   |   |   <a class="dropdown-item delete_data" href="javascript:void(0)" data-id=<?php echo $row['id'] ?>">Delete
58  |   |   |   </div>
59  |   |   |   </td>
60  |   |   |   </tr>
61  |   |   <?php endwhile; ?>
62  |   |   </tbody>
63  |   |   </table>
64  |   |   </div>
65  |   |   </div>
66  |   |   </div>
67  |   |   </div>
68  |   |   </div>
69  |   <script>
70  |   |   $(document).ready(function(){
71  |   |   |   $('.view_data').click(function(){
72  |   |   |   |   uni_modal("Reservation Details","reservations/view_details.php?id="+$(this).attr('data-id'),"mid-large")
73  |   |   |   })
74  |   |   |   $('.delete_data').click(function(){
75  |   |   |   |   if(confirm("Are you sure to delete this Reservation permanently?")) {
76  |   |   |   |   |   delete_reservation($(this).attr('data-id'))
77  |   |   |   |   }
78  |   |   |   |   $('.table td,.table th').addClass('py-1 px-2 align-middle')
79  |   |   |   |   $('.table').DataTable({
80  |   |   |   |   |   columnDefs: [
81  |   |   |   |   |   |   {orderable: false, targets: 5 }
82  |   |   |   |   |   ],
83  |   |   |   |   });
84  |   |   |   function delete_reservation($id){
85  |   |   |   |   start_loader();
86  |   |   |   |   $.ajax({
87  |   |   |   |   |   url: base_url + "classes/Master.php?f=delete_reservation",
88  |   |   |   |   |   method:"POST",
89  |   |   |   |   |   data:{id: $id},
90  |   |   |   |   |   dataType:'json',
91  |   |   |   |   |   error:err=>{
92  |   |   |   |   |   |   console.log(err)
93  |   |   |   |   |   |   alert_toast("An error occurred.",'error');
94  |   |   |   |   |   end_loader();
95  |   |   |   },
96  |   |   |   |   |   success:resp=>{
97  |   |   |   |   |   |   if(typeof resp=='object' && resp.status == 'success'){
98  |   |   |   |   |   |   location.reload();
99  |   |   |   |   |   }else{
100  |   |   |   |   |   |   alert_toast("An error occurred.",'error');
101  |   |   |   |   |   end_loader();
102  |   |   |   }
103  |   |   |   });
104  |   |   |   }
105  |   |   |   }
106  |   |   </script>

```

5.5 USER PAGE

The screenshot shows the 'Reservation Form' section of the ORRS website. At the top, there is a summary table with the following data:

Schedule Code: 202201-0001	From: Station 1	First Class Fare: 50
Schedule: Everday 07:00 AM	To: Station 2	Economy Fare: 25

Below this is a 'Schedule Date' input field (dd-mm-yyyy) and a dropdown for 'Select here'. There are also fields for 'Seat Type' and 'Fare Amount'. A section for passenger details follows, with fields for 'First Name', 'Middle Name', and 'Last Name', each with a '(optional)' note. A red 'Remove' button is located to the right of the last name field. At the bottom are 'Add Passenger' and 'Submit Reservation' buttons.

The screenshot shows the 'Generated Tickets' section of the ORRS website. At the top, there is a header with the ORRS logo and navigation links. Below it is a 'Print' button. The main content area displays a 'Reservation Ticket' from the 'Online Railway Reservation System'. The ticket includes the following information:

Schedule Code: 202201-0001 Train: TIR-1001 - Train 101
Schedule: Jan 03, 2023 07:00 AM Seat #: E-001 Group: Economy
Passenger Name: BRUJESH SINGH

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ORRS (by: Sudhanshu & Rajul) v1.0

```

tickets.php
1 <?php
2 if(isset($_GET['ids'])){
3     $trains = $conn->query("SELECT *,concat(code,' - ',name) as train FROM `train_list` where id in (SELECT train_id FROM `schedule_list` WHERE train_id IN (".$ids.")");
4     $res = $trains->fetch_all(MYSQLI_ASSOC);
5     $train_fcf_arr = array_column($res,'first_class_capacity','id');
6     $train_efc_arr = array_column($res,'economy_capacity','id');
7     $train_arr = array_column($res,'train','id');
8     $qry = $conn->query("SELECT r.* ,s.code as sched_code,s.train_id from `reservation_list` r inner join `schedule_list` s on r.schedule_id = s.id");
9     if($qry->num_rows > 0){
10         $res = $qry->fetch_all(MYSQLI_ASSOC);
11     }else{
12         echo '<script> alert("Unknown Reservation ID(s).");location.replace("./?page=schedules") </script>';
13     }
14 } else{
15     echo '<script> alert("Reservation ID(s) is required to view this page.");location.replace("./?page=schedules") </script>';
16 }
17 $train_group = ['', 'First Class', 'Economy'];
18 ?>
19 <div class="content py-5">
20     <div class="card rounded-0 card-outline card-primary shadow">
21         <div class="card-header rounded-0">
22             <h5 class="card-title">Generated Tickets</h5>
23             <div class="card-tools">
24                 <button class="btn btn-sm btn-flat btn-success" id="print"><i class="fa fa-print"></i> Print</button>
25             </div>
26         </div>
27         <div class="card-body rounded-0">
28             <div id="outprint" class="list-group">
29                 <style>
30                     .logo {
31                         width: 50px;
32                         height: 50px;
33                         object-fit: scale-down;
34                         object-position: center center;
35                         left: 17.33%;
36                         position: relative;
37                         top: -0.33em;
38                     }
39                     .tickets{
40                         border-bottom: 3px dashed;
41                     }
42                 </style>
43                 <?php foreach($res as $row); ?>
44                 <div class="list-group-item tickets py-5">
45                     <div class="row align-items-center">
46                         <div class="col-1 text-center">
47                         </div>
48                         <div class="col-12 text-center">
49                             <img src=<?= validate_image($_settings->info('logo')) ?>" alt="logo" class="logo float-left">
50                             <h3 class="m-0 text-center"><?= $_settings->info('name') ?></h3>
51                             <h5 class="m-0 text-center">Reservation Ticket</h5>
52                         </div>
53                     </div>
54                     <hr>
55                     <div class="clear-fix my-5"></div>
56                     <div class="row">
57                         <div class="col-auto pr-2"><b>Schedule code:</b></div>
58                         <div class="col-auto flex-grow-1 border-bottom border-dark"><b><?= $row['sched_code'] ?></b></div>
59                         <div class="col-auto pl-4 pr-2"><b>Train:</b></div>
60                         <div class="col-auto flex-grow-1 border-bottom border-dark"><b><?= isset($train_arr[$row['train_id']]) ?></b></div>
61                         <div class="row">
62                             <div class="col-auto pr-2"><b>Schedule:</b></div>
63                             <div class="col-auto flex-grow-1 border-bottom border-dark"><b><?= date("M d, Y h:i A", strtotime($row['sch_date'])) ?></b></div>
64                             <div class="col-auto pl-4 pr-2"><b>Seat #:</b></div>
65                             <div class="col-auto flex-grow-1 border-bottom border-dark"><b><?= $row['seat_num'] ?></b></div>
66                             <div class="col-auto pl-4 pr-2"><b>Group:</b></div>
67                             <div class="col-auto flex-grow-1 border-bottom border-dark"><b><?= $train_group[$row['seat_type']] ?></b></div>
68                         </div>
69                         <div class="row">
70                             <div class="col-auto pr-2"><b>Passenger Name:</b></div>
71                             <div class="col-auto flex-grow-1 border-bottom border-dark"><b><?= strtoupper($row['firstname']).' '. $row['lastname'] ?></b></div>
72                         </div>
73                         <div class="clear-fix my-5"></div>
74                     </div>
75                 <?php endforeach; ?>
76             </div>
77         </div>
78     </div>
79     <div>
80         <?php endforeach; ?>
81     </div>
82 </div>
83
84 <script>
85     $(function(){
86         $('#print').click(function(){
87             var _h = $("head").clone()
88             var _p = $("#outprint").clone();
89             var el = $("<div>");
90             el.append(_h)
91             el.append(_p)
92             start_loader()
93             var nw = window.open('', '_blank', 'width=1000,height=720,top=100,left=100')
94             nw.document.write(el.html())
95             nw.document.close()
96             setTimeout(() => {
97                 nw.print()
98                 setTimeout(() => {
99                     nw.close()
100                     end_loader();
101                 }, 500);
102             }, 750);
103         })
104     })
105 </script>

```

5.6 DATABASE

phpMyAdmin

Server: 127.0.0.1 > Database: ors_db > Table: message_list

Browse Structure SQL Search Insert Export Import Privileges Operations Tracking Triggers

Showing rows 0 - 1 (2 total, Query took 0.0005 seconds.)

```
SELECT * FROM `message_list`
```

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

Show all Number of rows: 25 Filter rows: Search this table Sort by key: None

Extra options

	Id	fullname	contact	email	message	status	date_created
	1	Manish Kumar	09456123789	mkumar@example.com	Sample Inquiry only	1	2022-01-06 09:13:14
	2	Shivansh	9815436820	shivansh@gmail.com	Payment related issue	1	2023-01-01 17:04:02

Check all With selected:

Show all Number of rows: 25 Filter rows: Search this table Sort by key: None

Query results operations

Print

Bookmark this SQL query

Console

```
Press Ctrl+Enter to execute query
>SELECT * FROM `users`
```

Bookmarks Options History Clear

phpMyAdmin

Server: 127.0.0.1 > Database: ors_db > Table: reservation_list

Browse Structure SQL Search Insert Export Import Privileges Operations Tracking Triggers

Showing rows 0 - 10 (11 total, Query took 0.0021 seconds.)

```
SELECT * FROM `reservation_list`
```

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

Show all Number of rows: 25 Filter rows: Search this table Sort by key: None

Extra options

	id	seat_num	schedule_id	schedule	firstname	middlename	lastname	seat_type	fare_amount	date_created	date_updated
	1	FC-001	1	2022-01-07 07:00:00	Ajay		Singh	1	50	2022-01-05 16:26:00	2023-01-01 15:09:15
	3	FC-003	1	2022-01-07 07:00:00	Anil		Kumar	1	50	2022-01-05 16:27:56	2023-01-01 15:09:24
	4	FC-001	2	2022-01-07 08:00:00	Suraj		Yadav	1	250	2022-01-05 16:31:27	2023-01-01 15:09:32
	5	FC-002	2	2022-01-07 08:00:00	Ram		Gupta	1	250	2022-01-05 16:31:27	2023-01-01 15:09:52
	6	E-001	1	2022-01-07 07:00:00	Shiva		Pandey	2	25	2022-01-06 08:35:53	2023-01-01 15:10:08
	7	E-002	1	2022-01-07 07:00:00	Sanjana		Mishra	2	25	2022-01-06 08:35:53	2023-01-01 15:10:16
	8	E-001	2	2022-01-07 08:00:00	Lucky		Singh	2	170	2022-01-06 09:24:57	2023-01-01 15:10:25
	9	E-002	2	2022-01-07 08:00:00	Priya		Kumari	2	170	2022-01-06 09:24:57	2023-01-01 15:10:38
	10	FC-001	1	2023-01-10 07:00:00	Shivam		Verma	1	50	2023-01-01 02:56:34	2023-01-01 15:11:02

Console

```
Press Ctrl+Enter to execute query
>SELECT * FROM `users`
```

Bookmarks Options History Clear

phpMyAdmin

Server: 127.0.0.1 > Database: ors_db > Table: schedule_list

Browse Structure SQL Search Insert Export Import Privileges Operations Tracking Triggers

Showing rows 0 - 4 (5 total, Query took 0.0003 seconds.)

```
SELECT * FROM `schedule_list`
```

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

Show all Number of rows: 25 Filter rows: Search this table Sort by key: None

Extra options

	id	code	train_id	route_from	route_to	type	date_schedule	time_schedule	first_class_fare	economy_fare	delete_flag	date_created	d
	1	202201-0001	1	Station 1	Station 2	1	NULL	07:00:00	50	25	0	2022-01-05 13:14:45	2
	2	202201-0003	2	Station 2	Station 5	2	2022-01-07	08:00:00	250	170	0	2022-01-05 13:17:49	2
	3	202201-0002	1	Station 1	Station 3	1	NULL	08:30:00	100	75	0	2022-01-05 13:18:25	2
	4	202201-0004	1	Station 1	Station 2	1	NULL	00:00:00	123	89	1	2022-01-05 13:59:44	2
	5	202301-0001	2	Station 2	Station 9	2	2023-01-07	14:08:00	400	250	0	2023-01-01 14:09:11	2

Console

```
Press Ctrl+Enter to execute query
>SELECT * FROM `users`
```

Bookmarks Options History Clear

phpMyAdmin

Server 127.0.0.1 > Database ors_db > Table system_info

Browse Structure SQL Search Insert Export Import Privileges Operations Tracking Triggers

Showing rows 0 - 10 (11 total, Query took 0.0005 seconds.)

SELECT * FROM `system_info`

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

Show all Number of rows: 25 Filter rows: Search this table Sort by key: None

Extra options

	ID	meta_field	meta_value
<input type="checkbox"/>	1	name	Online Railway Reservation System
<input type="checkbox"/>	6	short_name	ORRS
<input type="checkbox"/>	11	logo	uploads/logo-164135186.png
<input type="checkbox"/>	13	user_avatar	uploads/user_avatar.jpg
<input type="checkbox"/>	14	cover	uploads/cover-164135188.png
<input type="checkbox"/>	15	content	Array
<input type="checkbox"/>	16	email	info@railways.com
<input type="checkbox"/>	17	contact	09794940301
<input type="checkbox"/>	18	from_time	11:00
<input type="checkbox"/>	19	to_time	21:30

Console

```
Press Ctrl+Enter to execute query
>SELECT * FROM `users`
>SELECT * FROM `message_list`
>SELECT * FROM `reservation_list`
```

Bookmarks Options History Clear

phpMyAdmin

Server 127.0.0.1 > Database ors_db > Table train_list

Browse Structure SQL Search Insert Export Import Privileges Operations Tracking Triggers

Showing rows 0 - 5 (6 total, Query took 0.0005 seconds.)

SELECT * FROM `train_list`

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

Show all Number of rows: 25 Filter rows: Search this table Sort by key: None

Extra options

	ID	code	name	first_class_capacity	economy_capacity	delete_flag	date_created	date_updated
<input type="checkbox"/>	1	TIR-1001	Train 101	100	200	0	2022-01-05 11:05:42	2022-01-05 16:27:47
<input type="checkbox"/>	2	TIR-1002	Train 102	100	200	0	2022-01-05 11:11:41	NULL
<input type="checkbox"/>	3	TIR-1003	Train 103	150	300	0	2022-01-05 11:11:56	NULL
<input type="checkbox"/>	4	TIR-1004	Train 104	150	300	0	2022-01-05 11:12:15	NULL
<input type="checkbox"/>	5	TIR-1005	Train 105	300	500	1	2022-01-05 11:13:00	2023-01-01 15:13:47
<input type="checkbox"/>	6	TIR-1005	Train 105	250	320	0	2022-12-31 23:50:20	2023-01-01 16:49:12

Check all With selected: Edit Copy Delete Export

Show all Number of rows: 25 Filter rows: Search this table Sort by key: None

Console

```
Press Ctrl+Enter to execute query
>SELECT * FROM `users`
>SELECT * FROM `message_list`
>SELECT * FROM `reservation_list`
```

Bookmarks Options History Clear

phpMyAdmin

Server 127.0.0.1 > Database ors_db > Table users

Browse Structure SQL Search Insert Export Import Privileges Operations Tracking Triggers

Showing rows 0 - 2 (3 total, Query took 0.0004 seconds.)

SELECT * FROM `users`

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

Show all Number of rows: 25 Filter rows: Search this table Sort by key: None

Extra options

	ID	firstname	middlename	lastname	username	password	avatar	last_login	type	status	verified	date_added	date
<input type="checkbox"/>	1	ORRS	NULL	Administrator	admin	0192023a7bd73250516f069df18b500	uploads/avatar-1.png?	NULL	1	1	2021-01-20 14:02:37	2023	
<input type="checkbox"/>	4	Samaya	NULL	Jain	samaj	6bd16165c8d927eeb8304fe3b0dd4d68	uploads/avatar-4.png?	NULL	2	1	2022-01-05 09:38:56	2023	
<input type="checkbox"/>	8	Risabh	NULL	Singh	risabh	00b74e0ee69b9037aa97e14d7fe6cc08	uploads/avatar-2.png?	NULL	2	1	2023-01-01 12:02:49	2023	

Check all With selected: Edit Copy Delete Export

Console

```
Press Ctrl+Enter to execute query
>SELECT * FROM `users`
>SELECT * FROM `message_list`
>SELECT * FROM `reservation_list`
```

Bookmarks Options History Clear

CHAPTER VI: CONCLUSION

In today's Web development, a good page design is essential. A bad design will lead to the loss of visitors and that can lead to a loss of business. In general, a good page layout has to satisfy the basic elements of a good page design. This includes color contrast, text organization, font selection, style of a page, page size, graphics used, and consistency. In order to create a well-designed page for a specific audience. The developer needs to organized and analyze the users statistics and the background of the users. Although it can be hard to come up with a design that is well suited to all of the users, there will be a design that is appropriate for most of the audience. The better the page design, the more hits a page will get. That implies an increase in accessibility and a possible increase in business.

The main of developing online railway reservation system is to provide all information that is required by the users. User friendliness is a must that is the user must get the details without complicated searching procedures. Other important requirements of software are data security, extensibility and maintainability.

CHAPTER VII: REFERENCES

- ❖ www.google.com
- ❖ www.wikipedia.com
- ❖ www.laravel.com
- ❖ www.phpmyadmin.com
- ❖ www.mondaq.com
- ❖ www.tandfonline.com
- ❖ www.geeksforgeeks.org