

## *INDEX/*

<b>TOPIC</b>	<b>Page No</b>
<b>1. Abstract... .....</b>	<b>03</b>
<b>2. Project objective.....</b>	<b>04</b>
2.1 Past trends.....	04
2.2 Current trends.....	04
2.3 Future Trends.....	04
<b>3. Information gathering.....</b>	<b>05</b>
3.1 Introduction.....	05
3.2 Problem Definition .....	06
<b>4. Software Requirement Analysis .....</b>	<b>07</b>
4.1 Hardware & Software Requirement: .....	07
4.2 User Summary .....	07
<b>5.Literature Survey for Problem Identification and Specification ... .....</b>	<b>08</b>
<b>6.Purposed Detail Methodology of Solving Identified Problems.....</b>	<b>09</b>
<b>7. Project Proposal .....</b>	<b>10</b>

<b>8. Algorithm and Diagrams.....</b>	<b>11</b>
8.1 Algorithm.....	11-13
8.2 Data Flow Diagram.....	14-15
8.3 Flow Chart .....	16-19
8.4 Test Case .....	20-21
<b>9. Project Implementation.....</b>	<b>22</b>
9.1 Screenshot's.....	22-26
<b>10. Feature and Scope .....</b>	<b>27</b>
10.1 Feature Of The Project .....	27
10.2 Scope Of The Project.....	27
10.3 References.....	27

## **ABSTRACT**

Designing a database for railway reservation system and trying to get an access to the database and reserve. This project deals with reserving tickets for the trains which is heck these days . So in order to make it convenient to travel we can book tickets priorly. This makes the travel smooth and convenient. This also helps in checking the details afterwards and it is user-friendly for the users.

## **Project Objective**

### **2.1) Past Trends:-**

There were not feature to download a online ticket.

### **2.2) Current trends:-**

There is a new to download a online ticket using PNR Number . And also a new feature to cancel a single seat in a ticket.

### **2.3) Future trends:-**

The future trend is to track the train using map

## **INFORMATION GATHERING**

### **3.1) Introduction:-**

The Railway Reservation System facilitates the passengers to enquire about the trains available on the basis of source and destination, Booking and Cancellation of tickets, enquire about the status of the booked ticket,etc. The aim of case study is to design and develop a database maintaining the records of different trains, train status, and passengers.

- We can check the PNR status.
- We can check seat availability.
- We can book the seat as our choice
- We can check the fare of train.

This project contains Introduction to the Railways reservation system . It is the computerized system of reserving the seats of train seats in advanced. It is mainly used for long route. On-line reservation has made for the reservation of seats very much easier than ever before.

Then this project contains entity relationship model diagram based on railway reservation system and introduction to relation model . Example of some SQL queries to retrieves data from railway management database.

### **3.2) Problem Definition:-**

- Difficulty in Accessing the Data:**

In manual system, searching information is time consuming but in our system, any information can be accessed by providing the primary key. But there was the problem of accessing the data of same name.

- ❖ Data redundancy :**

It means that same data fields appear in many different files and often in different formats. In manual system, it poses quite a big problem because the data has to be maintained in large volumes but in our system, this problem can be overcome by providing the condition that if the data entered is duplicate, it will not be entered, otherwise, updating will take place.

- ❖ Difficult to check the Availability of Seats :**

In manual system, the facility of checking the availability of seat was not there and because of this problem , the passengers couldn't get the availability of seat and they can't book the seat of their according to their choice.

- ❖ Difficult to get the refund after cancellation :**

In manual system, there is a problem to get the refund of money after cancellation the ticket. And also it doesn't gives the message about the cancellation of ticket.

## **Software Requirement Analysis**

### **4.1) Hardware & Software Requirement:-**

#### **4.1.1) Hardware Requirement:-**

- Minimum : 2 GB RAM.
- Minimum : 2 GB HDD
- Processor : Intel i2 & above

#### **4.1.2) Software Requirement:-**

- Development Tool : PHP , CSS , Javascript , HTML5
- Database : MYSQL
- XAMPP-MySQL Server 7.0
- Web Browser : Google Chrome , Mozilla Firefox, Internet Explorer

### **4.2) User Summary:-**

- It is user-friendly to the users.
- For booking purpose, the security is applied
- Extra features are added in the site.

## **Literature Survey for Problem Identification and Specification**

In present system there is no query system for the passengers, by taking this problem PNR status enquiry system was done in which passengers who was in waiting list can enquire about their status if this system is not used have to wait up to TTR arrival and have to provide a bribe, by implementing this system can check their own status and can utilize it anytime. The action performed can make the travel still more informative and safety. Present reservation is having problem in which passengers cannot choose their seats, members of the family is not getting seats in sequence and therefore seats are in different coaches or different place in same coaches.

Indian Railway will continue to play a Crucial role in the economy of the country in the many years to come. The need of the hour is to have an exclusive advanced reservation system, PNR status checking system, location identification through effective communication system, fire sensing system and catering services in place that would Fulfil the requirements of the whole spectrum of passengers[1]. In present system, there is no passenger intimation in a train that is persons who are travelling during night time are unaware of the exact place now they are in and no prior intimation of when they reach their respective stations. The information about arrival of the respective station can be checked using live status option in application .IPMIS model is an inevitable trend, which means a common platform for mobile booking and reservation has become a priority.

## **Purposed Detail Methodology of Solving Identified Problems**

The Indian Railway Reservation website is developed in a user friendly way to access all features, 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 in the entire code will be split up in different modules or functions and be called upon when required.

The major functions 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, train info and if there is any problem faced by user we give contact information such that they can let us know about their problems.

The User Side in the website contains the options to book a ticket, cancel ticket, check PNR status, Check Live train status, station information whereas the Server side have the options to give data to users as per the request given by user in form of databases. User Interface Flow Diagram We all know that there various site including all features of booking and other features may be familiar to everyone but here the application which is being developed will be new to the users who don't have even basic knowledge on all features may utilize the application due to its friendly user interface and may utilize features and additional feature which helps users is it gives suggestion to users that which train reach in shortest time to their destination. The changes which makes our website better are included in the third part of our paper.

Here an overview of website will be displayed how user can access all features of site and user studying this paper can easily understand the features that can be accessed or utilized by the site and can get detailed information about our website which is developed for benefit of users and user can handle it easily due to its interface which is simple and can be accessed by people who even don't have basic knowledge on usage of site can handle it very easily and all features which are developed in our website will be displayed in the paper with photos so that anyone can get a detail on the paper.

## Project Proposal

<b>Week No.</b>	<b>Proposed Plan Week</b>	<b>Proposed Work To Be Done</b>	<b>Actual Work Duration</b>	<b>Actual Work done</b>
1	1 <sup>st</sup> ,2 <sup>nd</sup> ,3 <sup>rd</sup> week of July	We gathered and made group & decided the project topic	03-July-2019 To 17-July-2019	We gathered and made group & decided the project topic
2	4 <sup>th</sup> week of July	We finalized the project topic	24-July-2019	We finalized the project topic
3	5 <sup>th</sup> week of July	Study of existing system (problem definition & survey questions)	31-July-2019	Study of existing system (problem definition & survey questions)
4	1 <sup>st</sup> ,2 <sup>nd</sup> ,3 <sup>rd</sup> week of August	Gather the requirement of a project & make analysis on them	07-August-2019 To 28-August-2019	Gather the requirement of a project & make analysis on them
5	1 <sup>st</sup> ,2 <sup>nd</sup> ,3 <sup>rd</sup> week of September	Designing of project	04-September-2019 To 18-September-2019	Designing of project
6	4 <sup>th</sup> week of September	Frontend discussion of project	28-September-2019	Frontend discussion of project
7	1 <sup>st</sup> week of October	Preparation of design report & finalization	06-October-2019	Preparation of design report & finalization
8	1 <sup>st</sup> ,2 <sup>nd</sup> week of December & 1 <sup>st</sup> week of January	We decide hardware & system requirement & implementation backend	04-December-2019 To 01-January-2020	We decide hardware & system requirement & implementation backend
9	2 <sup>nd</sup> & 3 <sup>rd</sup> week of January & 1 <sup>st</sup> week of February	Implementation of module according to work flow of project	03-January-2020 To 05-February-2020	Implementation of module according to work flow of project
10	2 <sup>nd</sup> , 3 <sup>rd</sup> , & 4 <sup>th</sup> week of February	We implemented database as well as user panel	11-February-2020 To 28-February-2020	We implemented database as well as user panel
11	1 <sup>st</sup> ,2 <sup>nd</sup> week of March	We implemented admin panel as well as login panel	04-March-2020 To 13-March-2020	We implemented admin panel as well as login panel
12	3 <sup>rd</sup> week of March	Testing of whole project to be done	27-March-2020	Testing of whole project to be done

## **Algorithm and Diagrams**

### **8.1 ) Algorithm :**

#### **❖ Search Trains Availability**

Step 1 :Start

Step 2 : Enter the Source name

Step 3 : Enter the Destination name and click on Search

Step 4 : Now you can choose the train and click on Book Now

Step 5 : Enter the Username and password . Click on Login.

Else if you not yet registered then Click on Registration.

Step 6 : Stop

#### **❖ Algorithm : Registration**

Step 1 : Start

Step 2 : Enter Your First Name Middle Name And Last Name

Step 3 : Enter valid Username

Step 4 : Enter password

Step 5 : Enter Your Mobile Number

Step 6 : Enter your Email ID

Step 7 : Enter Date Of Birth

Step 8 : Select Your Gender

Step 9 : Select Your City

Step 10 : Select Your State

Step 11 : Select Your Country

Step 12 : Click on Submit

Step 13 : Stop

## **❖ Algorithm : Booking Of Ticket**

Step 1 : Start

Step 2 : Enter Your Username and Password if you are already created else Click on Registration.

Step 3 : After Login Or after Registration , you will visit on Booking Page

Step 4 : Click On Search trains availability

Step 5 : Enter the Source name

Step 6 : Enter the Destination name and click on Search

Step 7 : Now you can choose the train and click on Book Now

Step 8 : Enter the Username and password . Click on Login.

Else if you not yet registered then Click on Registration.

Step 9 : Now , Enter the Details of Passenger

Step 10 : Enter the Class

Step 11 : Select the payment mode

Step 12 : Enter Card Number

Step 13 : Enter Phone Number

Step 14 : Enter Email ID

Step 15 : Enter The Date Of Journey

Step 16 : Enter Passenger Name , Age , And Select the Gender

Step 17 : Now , Click on Confirm To Book

Step 18 : Enter The OTP that have been sent on Email ID

Step 19 : If OTP is correct then the Ticket is successfully booked else ticked will be rejected.

Step 20 : Stop

### **❖ Algorithm : Cancellation Of Ticket**

Step 1 : Start

Step 2 : Enter Username and Password

Step 3 : Click On Login

Step 4 : Now , Click on Cancel a Ticket

Step 5 : Then you can see the Two buttons

Step 6 : If you want to cancel single seat then Click on Cancel A Single Seat else Click on Cancel All Seats In a Ticket

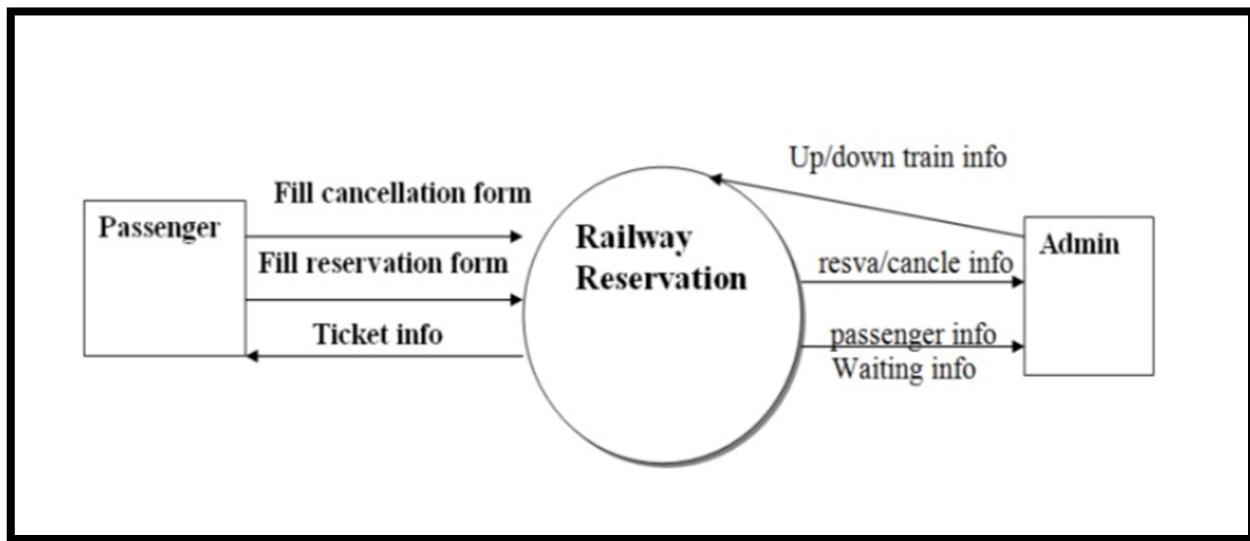
Step 7 : Now , Enter the PNR Number and click on Check

Step 8 : If PNR Number is valid then the Ticket has been cancelled

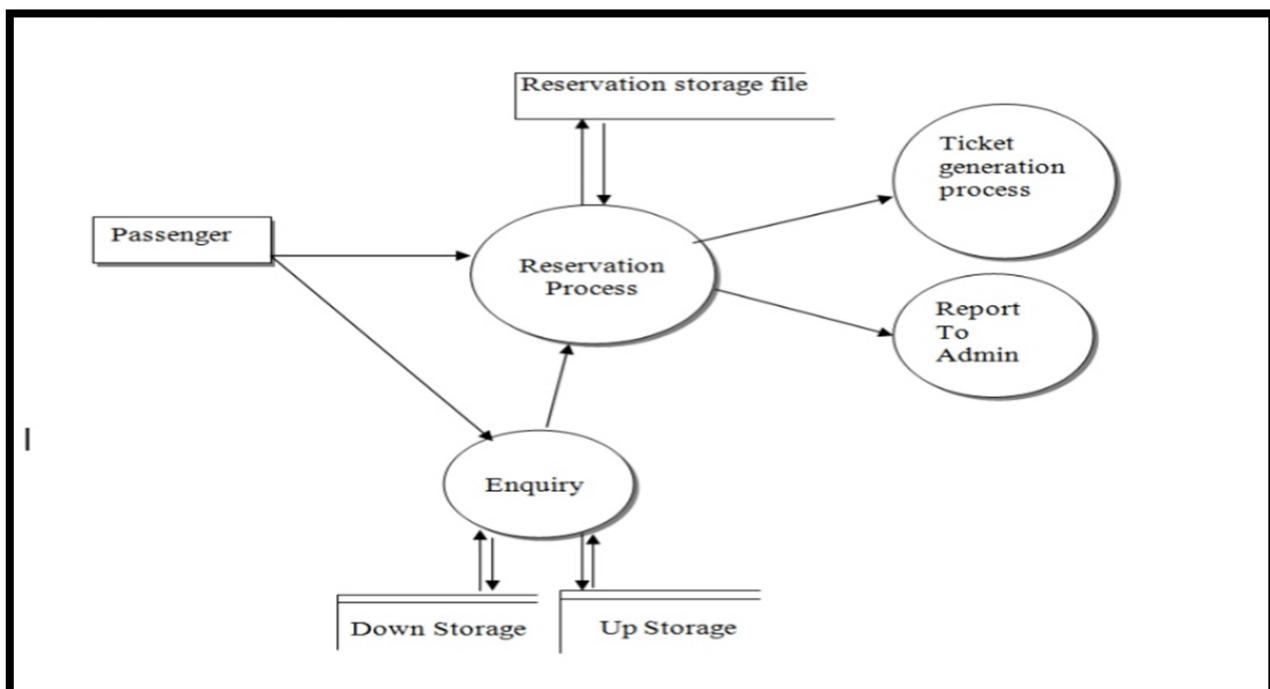
Step 9 : Stop

## 8.2) Data flow diagram

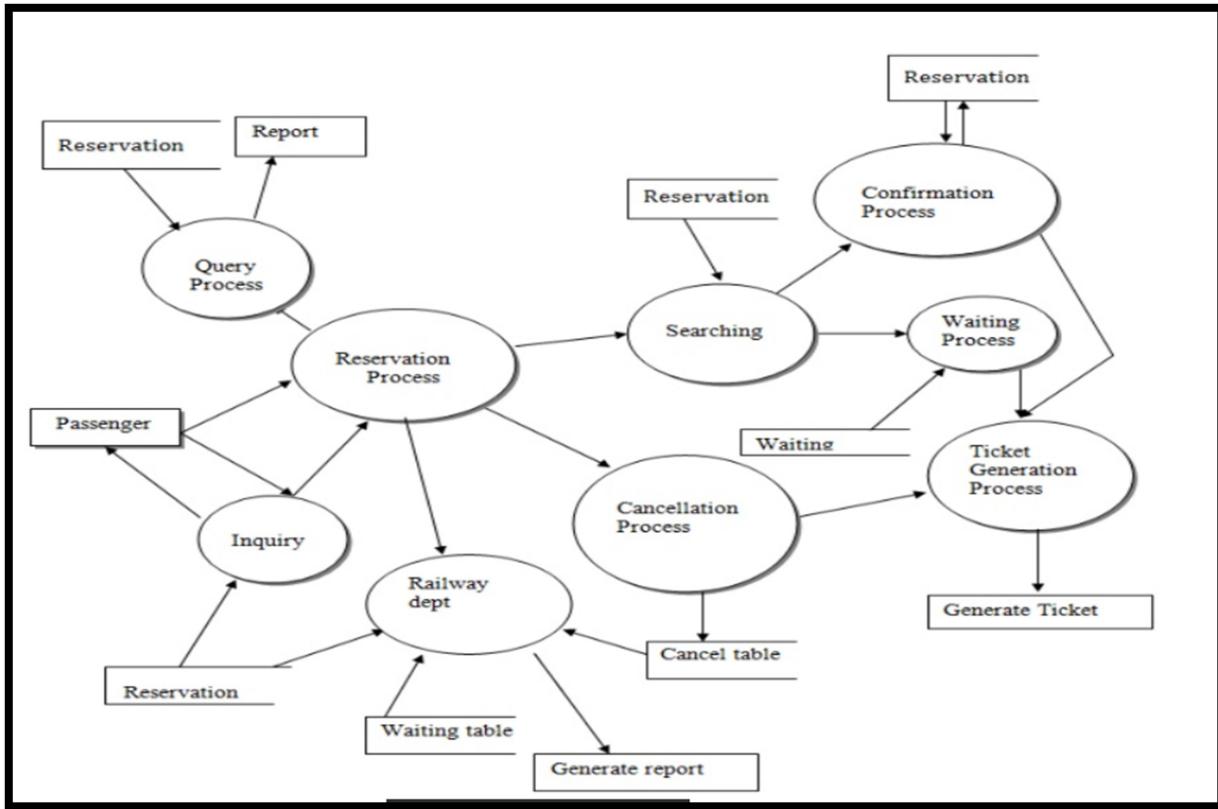
Level - 0



Level -1

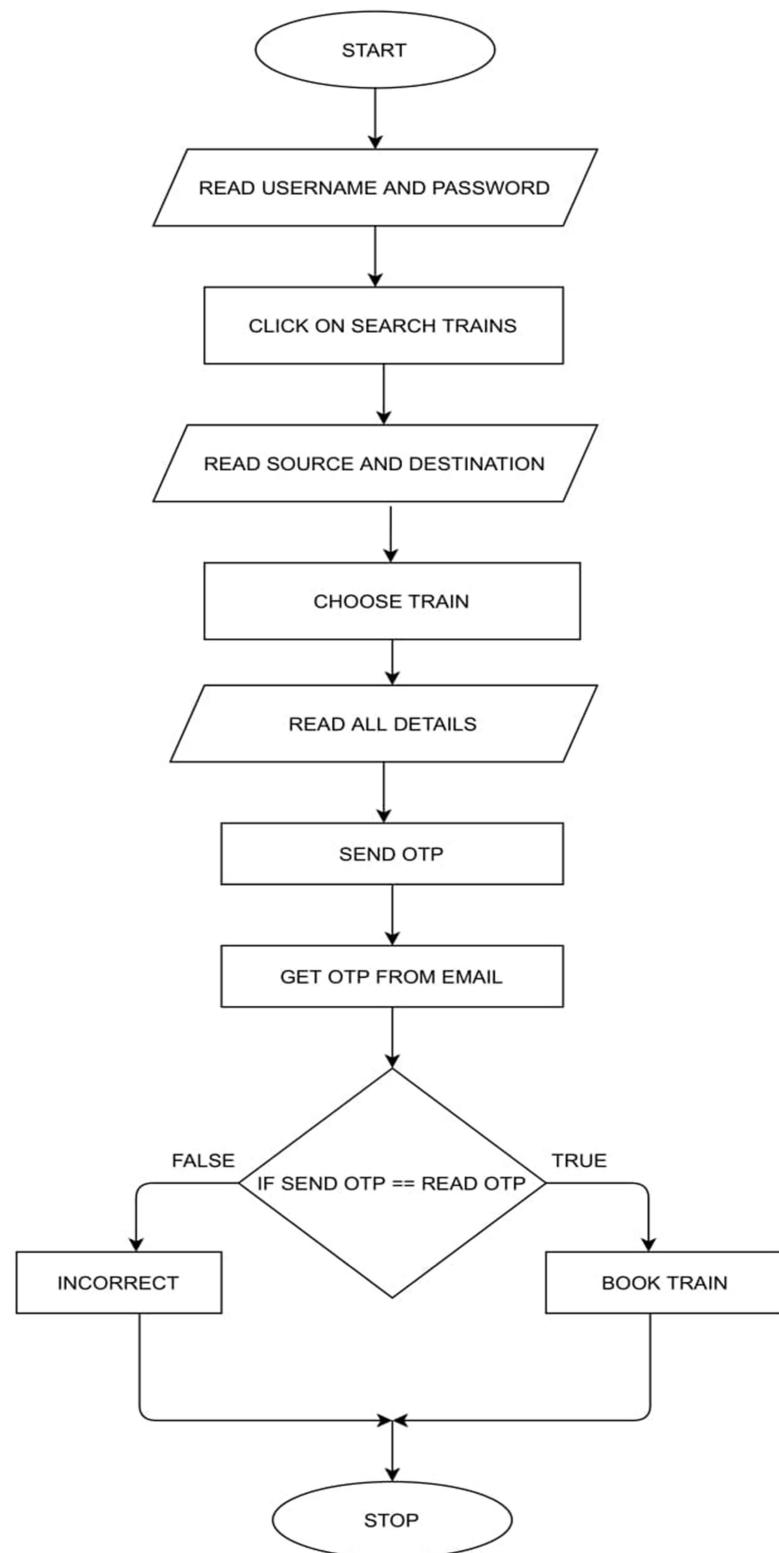


## Level – 2

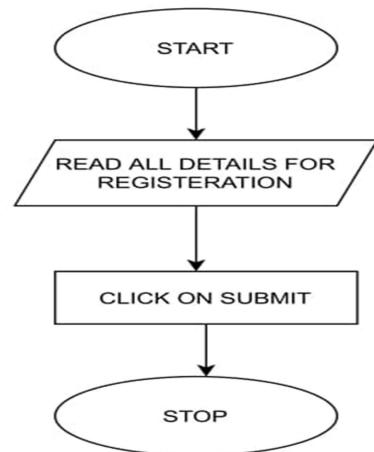


### 8.3) Flow Chart :

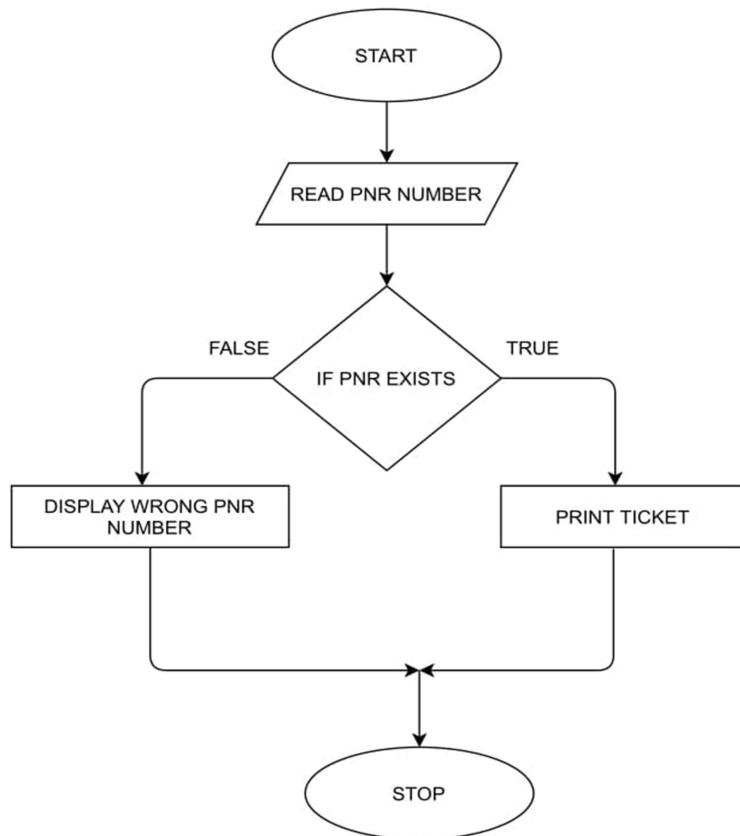
#### ❖ Booking of Ticket :



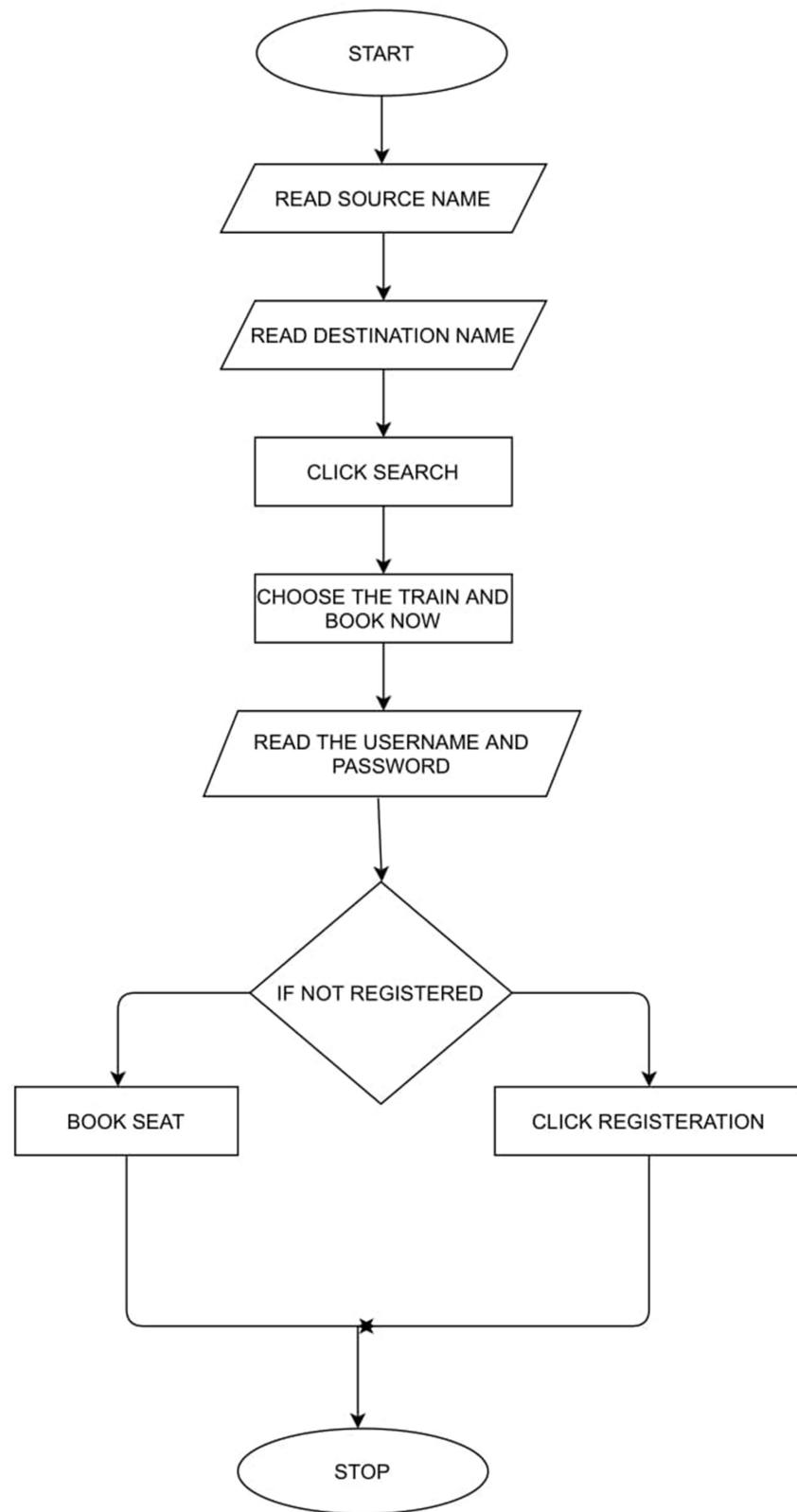
❖ **Registration :**



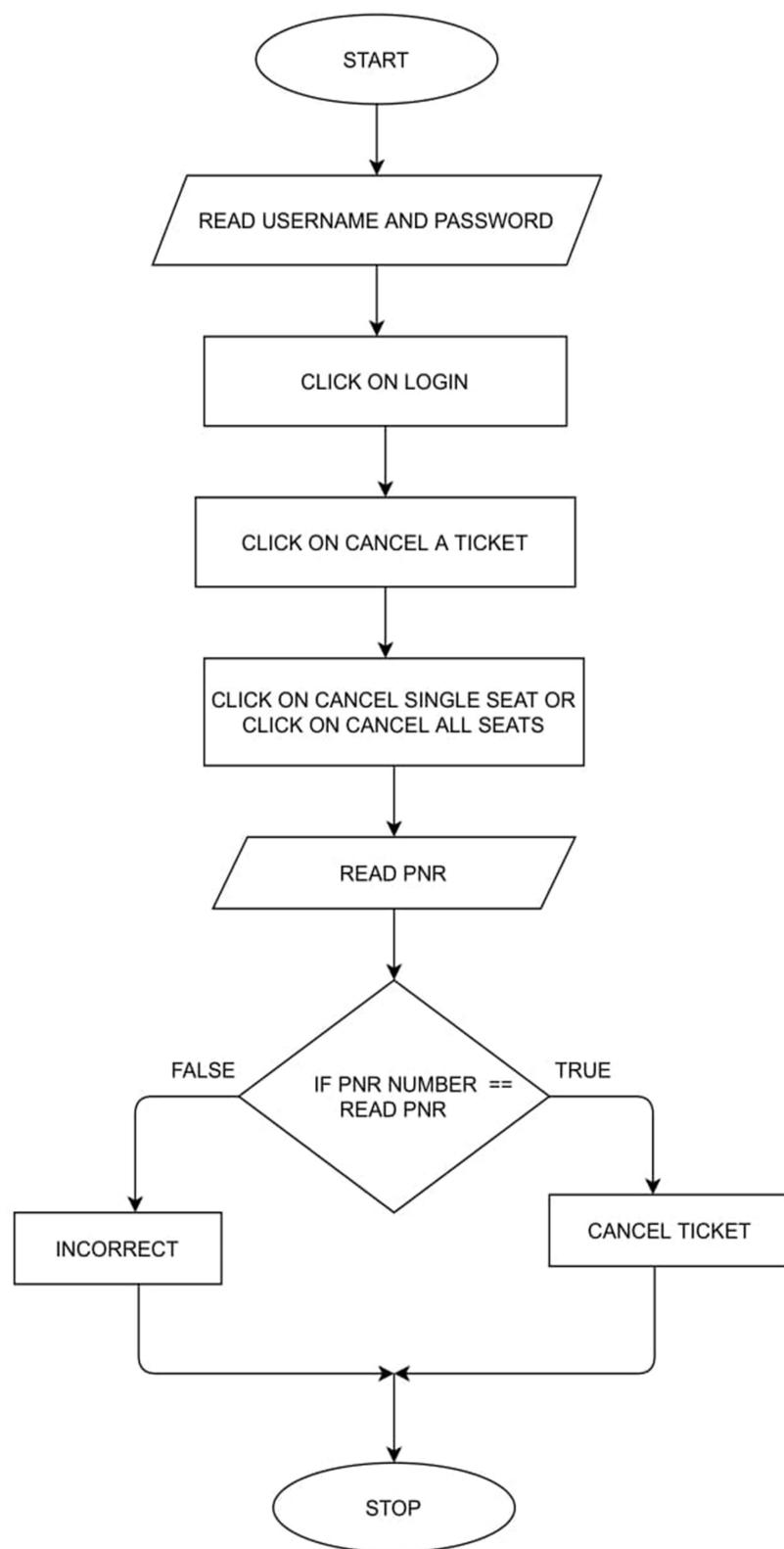
❖ **PNR Number :**



❖ Search Train :



❖ **Cancel A Ticket :**



#### 8.4) Test Case ( Admin Panel )

Sr. No	Test case ID	Test case Objective	Pre- requisites	Steps	IP Data	Expected Result	Actual Result	Status
1	Tc-1	Username	Site should be connected with database	1)Login with Correct Username	Username , Password	Username Is Correct	Username Is Correct	Pass
2	Tc-2	Password	Site should be connected with database	1)Login with Correct Password	String , Integer	Password is correct	Password is correct	Pass
3	Tc-3	Add Trains	Site should be connected with database	1)Enter details to add trains 2)Click On Add Details	Train No. Train Name Source Destination	Display the message Train added successfully	Display the message Train added successfully	Pass
4	Tc-4	Update Trains Details	Site should be connected with database	1)Enter details to update trains 2)Click On Update Details	Train No. Train Name Source Destination	Display the message Train Updated successfully	Display the message Train Updated successfully	Pass
5	TC-5	Update Chart Details	Site should be connected with database	1) Enter details to Update Chart 2) Click On Update Details	Train No. Train Name Source Destination	Display the message Chart Updated successfully	Display the message Chart Updated successfully	Pass

## Test Case ( User Panel )

Sr. No	Test case ID	Test case Objective	Pre- requisites	Steps	IP Data	Expected Result	Actual Result	Status
1	Tc-1	Username	Site should be connected with database	1)Login with Correct Username	vishal@gmail.com	Username Is Correct	Username Is Correct	Pass
2	Tc-2	Password	Site should be connected with database	1)Login with Correct Password	Vishal123	Password is correct	Password is correct	Pass
3	Tc-3	Source	Site should be connected with database	1>Select the Source	Solapur	Display the source	Display the source	Pass
4	Tc-4	Destination	Site should be connected with database	1>Select the Destination	Mumbai	Display the destination	Display the destination	Pass
5	TC-5	PNR Number	Site should be connected with database	1)Enter PNR Number	1234567890	Display the Ticket	Display the Ticket	Pass
6	TC-5	Forget Password	Site should be connected with database	1)Enter the Email ID	vishal@gmail.com	Password Changed Successfully	Password Changed Successfully	Pass
7	TC-5	Check OTP	Site should be connected with database	1)Enter the valid OTP	543210	OTP is Valid	OTP is Valid	Pass

# PROJECT IMPLEMENTATION

✓ ScreenShot's:

❖ HomePage :

The screenshot shows the official Indian Railways website. At the top left is the logo for 'Tour Layers'. In the center is the Indian Railways logo with the slogan 'Lifeline to the nation...'. To the right is a logo for '150 YEARS OF CELEBRATING THE MAHATMA' and the Indian emblem. The main content area features a banner with the text 'SS ECONOMY. ERADICATE BLACK MONEY . PLEASE HELP INDIAN RAILWAYS AND GOVERNMENT'. Below this is a green button labeled 'LATEST UPDATED TRAINS CHART!!!'. To the left, there is a 'SEARCH TRAINS' section with dropdown menus for 'Source' and 'Destination', and a red 'SEARCH' button. Below it is a 'PNR ENQUIRY' section with a text input for 'Enter PNR Number' and a red 'CHECK' button. On the right, there is a 'LOGIN HERE TO BOOK A SEAT' section with fields for 'Username' and 'Password', a green 'LOGIN' button, a red 'REGISTRATION' button, and links for 'Activate Windows', 'Go to Settings', and 'FORGOT PASSWORD???'.

TRAIN NO.	TRAIN NAME	SOURCE	DESTINATION	ARRIVAL	DEPARTURE	FREQUENCY
11014	Coimbatore LTI Exp	Coimbatore Jn	Lokmanya Tilak T	17:50:00	18:00:00	Daily
11020	Konark Exp	Bhubaneshwar	Mumbai CST	18:45:00	18:55:00	Daily
11042	Chennai Mumbai Exp	Chennai Central	Mumbai CST	16:30:00	16:40:00	Daily
12115	Siddeshwar Express	solapur	mumbai	00:00:10	00:00:08	mon.tues.wed
12116	Udyan Express	Mumbai	Solapur	22:45:00	07:45:00	mon,tue,wed
12702	Hussainsagar Exp	Hyderabad	Mumbai CST	14:50:00	15:30:00	Daily
16382	Kanyakumari Mumbai Exp	Kanyakumari	Mumbai CST	14:05:00	14:15:00	Daily
17032	Hyderabad Mumbai Express	Hyderabad	Mumbai CST	03:00:00	21:10:00	Daily
17221	Kakinada Port - LTT Exp	Hyderabad	Mumbai CST	03:00:00	15:50:00	Thu , Sun
22882	Bhubaneshwar-Pune Superfast .	Bhubaneshwar Express	Pune	00:05:00	00:15:00	Thu
51426	Indrayani Express	Mumbai	Pune	00:45:00	10:00:00	Daily

❖ Trains Availability :



**SIDDESHWAR EXPRESS**

**SOLAPUR**      **12115**      **MUMBAI**

Arrival Time :22:45:00      Destination Time : 08:30:00

Waiting :12      Available Seats In Coach : A1 /A2 /B3 General :24

Starts From INR 310 Rs  
All Class Are Available  
Days :mon,tue,wed,thu,fri,sat,sun

**BOOK NOW**



**CHENNAI EXPRESS**

**CHENNAI**      **13005**      **MUMBAI**

Arrival Time :23:15:00      Destination Time : 08:30:00

Waiting :45      Available Seats In Coach : A1 /A2 /B3 General :47

Starts From INR 450 Rs  
All Class Are Available  
Days :fri

**BOOK NOW**



**INDRAYANI EXPRESS**

**HYDERABAD**      **41514**      **MUMBAI**

Arrival Time :12:25:00      Destination Time : 09:40:00

Waiting :54      Available Seats In Coach : A1 /A2 /B3 General :47

Starts From INR 450 Rs  
All Class Are Available  
Days :Mon,Tue,Wed,Thr,Fri,Sat,Sun

**BOOK NOW**

❖ Registration :

REGISTRATION FORM OF INDIAN RAILWAY RESERVATION ENQUIRY

First Name      Middle Name      Last Name

Username

Password      Confirm Password

Mobile Number      Email ID

dd - - - yyyy

Gender

City

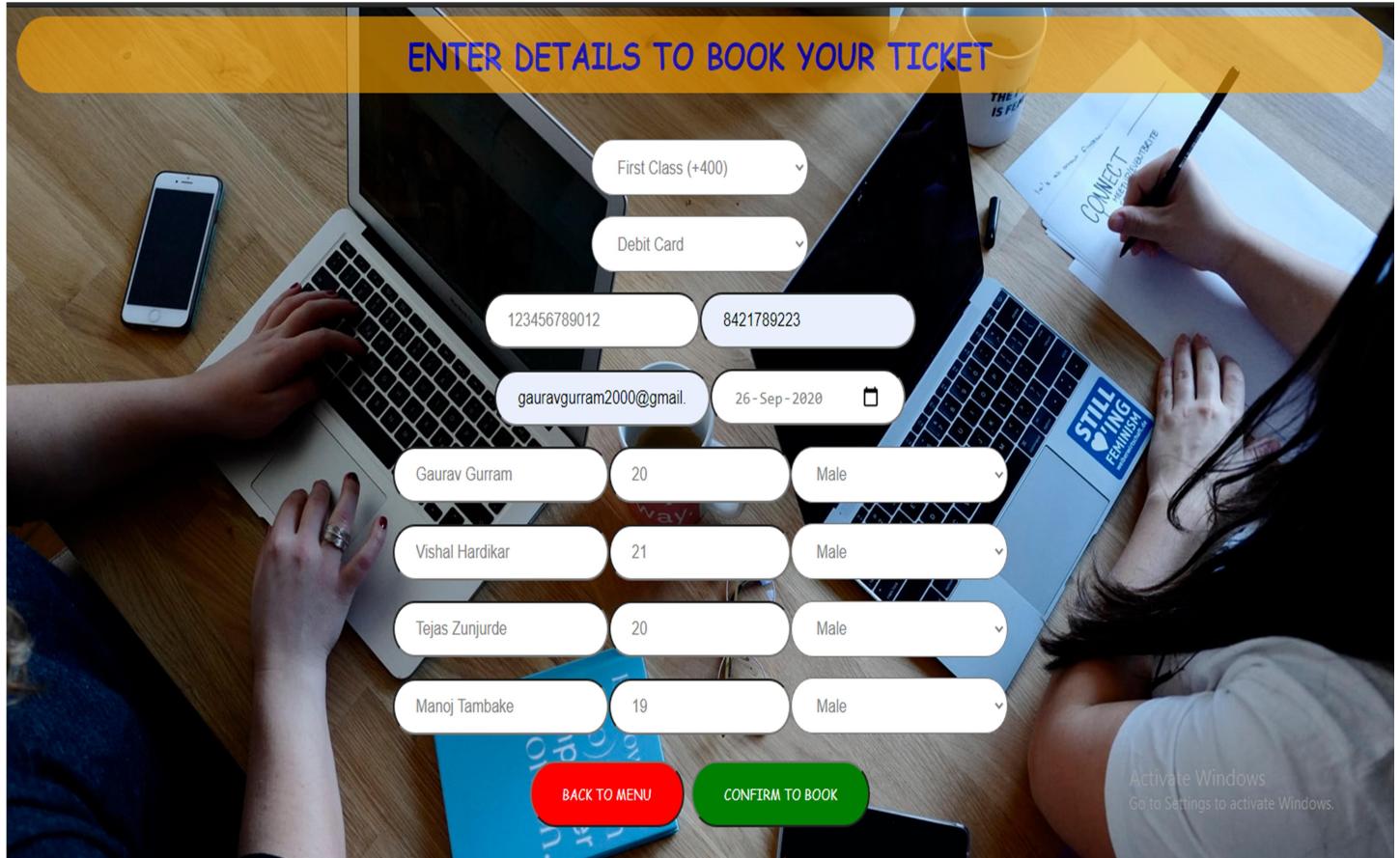
State

Country

Activate Windows  
Go to Settings to activate Windows.

Activate Windows  
Go to Settings to activate Windows.

❖ Booking :



❖ Ticket :

	<b>Indian Railways</b> Lifeline to the nation...		 सत्यम् जयते
<b>TICKET</b>			
DATE : 26 - Sep - 2020	PNR NUMBER : 1382603723		
TRAIN NO. : 12115	TRAIN NAME : SIDDESHWAR EXPRESS		
SOURCE : SOLAPUR	DESTINATION : MUMBAI		
COACH : E7	CLASS : First Class		
PASSENGER NAME	AGE	GENDER	SEAT NO.
Gaurav Gurram	20	Male	80
Vishal Hardikar	21	Male	81
Tejas Zunjurde	20	Male	82
Manoj Tambake	19	Male	83
<u>TOTAL AMOUNT :</u>	2840		

## **FEATURES AND SCOPE**

### **10.1) Features Of Project :**

- Easy to store information and fast accessing of information.
- Download the booked ticket using PNR Enquiry feature
- To make it easy for fast processing and modification.
- Display schedule of updated trains in the chart
- Only administrator manipulate the details of trains
- Tickets can be cancelled easily

### **10.2) Scope Of Project :**

- Implementations of this project idea are in industrial use in the form of `www.irctc.co.in, etc. Hence, this can be used for suggesting improvements in design, performance and greater usability.
- Apart from the industrial applications mentioned above , it is a research oriented project as well , the task of performance evaluation of different database designs, for efficiency, is in this spirit.

### **10.3) References :**

- [www.irctc.co.in](http://www.irctc.co.in)
- [www.indianrailways.gov.in](http://www.indianrailways.gov.in)
- [www.erail.in](http://www.erail.in)
- [www.etrains.com](http://www.etrains.com)