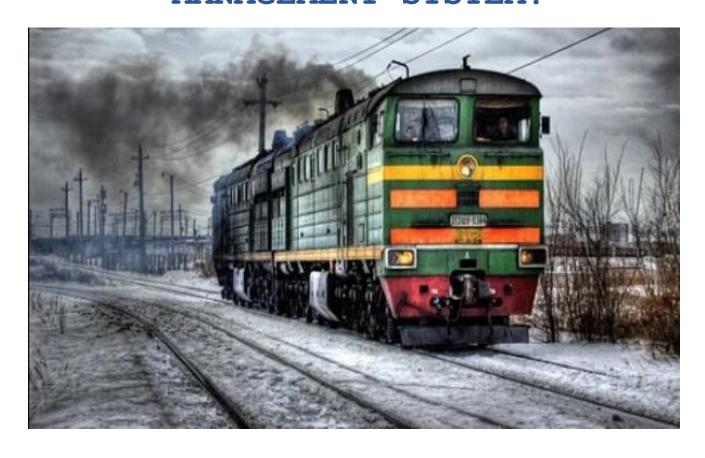
# CSE-2004 DBMS J COMPONENT

# RAILWAY RESERVATION AND MANAGEMENT SYSTEM.



# TEAM:

- ✓ VINAY VITTAL MOOLYA 20BCE1318
- ✓ RAMINEDI SANTHOSH 20BCE1477
- ✓ YASH SETH 20BCE1789

# INDIVIDUAL CONTRIBUTIONS:

### RAMINEDI SANTHOSH 20BCE1477:

Contributed in schema designing and designed the ADMIN PORTAL and ADD TRAINS PORTAL for the ADMIN SECTION. For this task he utilized the technologies such as HTML, CSS and PHP and frameworks such as XAMPP AND BOOTSTRAP.

### YASH SETH 20BCE1789:

Contributed and designed PAYMENT PORTAL, MODIFY TRAINS, VIEW TICKET, UPDATE PROFILE AND DELETE ACCOUNT PORTALS FOR THE PROJECT . For this task he utilized the technologies such as HTML, CSS, PHP and frameworks such as XAMPP AND BOOTSTRAP.

### VINAY VITTAL MOOLYA 20BCE1318:

Contributed and designed SEARCH TRAINS, BOOK TICKET, CANCEL TICKET, VIEW TRAINS, DISPLAY USERS, DELETE TRAINS AND THE LOGIN PORTAL FOR THE WHOLE PROJECT. For this task he utilized the technologies such as HTML, CSS, PHP and frameworks such as XAMPP AND BOOTSTRAP.

# **ABSTRACT**

India has the largest railway network which is the primary mode of transport. While there is a functional online reservation system in place there is more room for improvement.

Our project deals with online reservation and management system which facilitates the passengers to enquire about the trains availability, book/cancel the tickets and keeps record of the transaction history.

This project aims to provide an efficient ,faster, more secure, simple, effective, user friendly alternative for the conventional method.

Its primary functions are :

- Registering the user records.
- View the availability of trains.
- Tracks the info about ticket ,train route and station details.
- Book/Cancel the tickets.
- View and manage the transaction history.

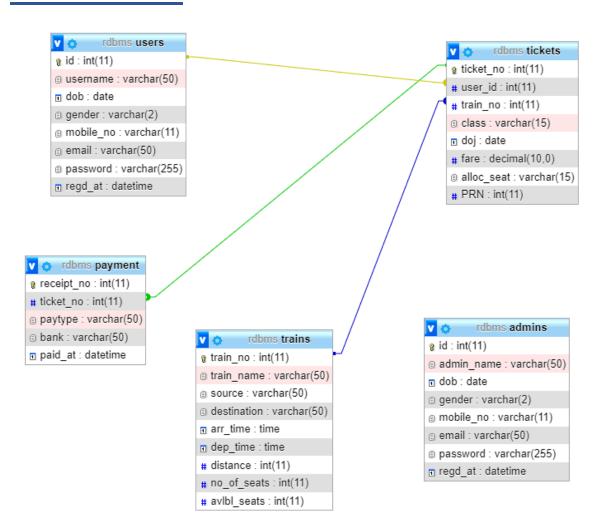
As India is moving towards the digitalizing the nation, this project attempts to provide a modern solution for the social problem described above.

The project is webpage which is locally hosted by XAMPP LOCAL HOST service and includes other technologies such as HTML, CSS, PHP, & BOOTSTRAP!

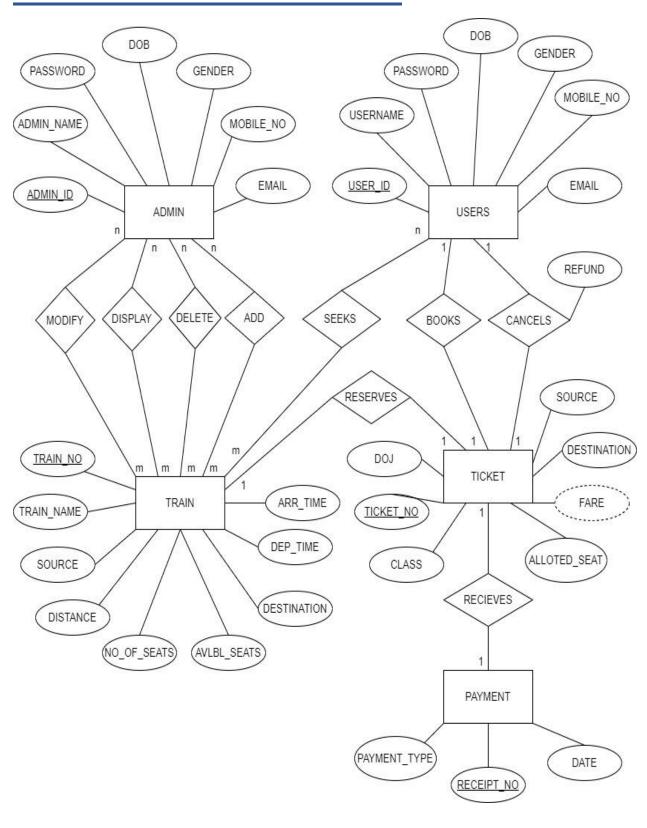
# REQUIREMENTS & DESIGN

Our project is a fully functional railway ticket booking system with responsive front-end and functional back-end. It provides the users functionalities to search trains, book tickets and cancel tickets and the admins with services such as adding trains, deleting trains, and updating the train details. The above-mentioned functionalities are regulated with a user/admin login portal.

### UML DIAGRAM:



### CONCEPTUAL DATABASE DESIGN:



### LOGICAL DATABASE DESIGN:

```
CREATE TABLE ADMIN
( ADMIN ID NUMBER,
   ADMIN NAME VARCHAR (20),
   DOB DATE,
   GENDER CHAR(1),
   MOBILE NO NUMBER (10),
   EMAIL VARCHAR (40),
   PASSWORD VARCHAR (15),
   CONSTRAINT ADMIN PRIMARY KEY (ADMIN ID));
CREATE TABLE USER
( USER ID NUMBER,
 USERNAME VARCHAR (20),
 DOB DATE,
  GENDER CHAR(1),
 MOBILE NO NUMBER (10),
  EMAIL VARCHAR (40),
 PASSWORD VARCHAR (15),
  CONSTRAINT USER PRIMARY KEY (USER ID));
CREATE TABLE TRAIN
( TRAIN NO NUMBER (5),
  TRAIN NAME VARCHAR (20),
  SOURCE VARCHAR (20),
```

```
DESTINATION VARCHAR (20),
ARR TIME TIME,
DEP TIME TIME,
DISTANCE NUMBER,
NO OF SEATS NUMBER,
AVLBL SEATS NUMBER,
CONSTRAINT TRAIN PRIMARY KEY (TRAIN NO));
CREATE TABLE TICKET
( TICKET NO NUMBER,
  TRAIN NO REFERENCES TRAIN (TRAIN NO),
  SOURCE REFERENCES TRAIN (SOURCE),
  DESTINATION REFERENCES TRAIN (DESTINATION),
  FARE NUMBER,
  CLASS VARCHAR (15),
  DOJ DATE,
  ALLOTED SEAT VARCHAR (5),
  CONSTRAINT TICKET PRIMARY KEY (TICKET NO));
CREATE TABLE PAYMENT
( RECEIPT NO NUMBER,
  USER ID REFERENCES USER (USER ID),
  TICKET NO REFERENCES TICKET (TICKET NO),
  FARE REFERENCES TICKET (FARE),
  PAYMENT TYPE VARCHAR (10),
  PAID AT DATE,
```

```
CONSTRAINT PAYMENT PRIMARY KEY(RECEIPT_NO));
CREATE TABLE CANCELS
( USER_ID REFERENCES USER(USER_ID),
   TICKET_NO REFERENCES TICKET(TICKET_NO),
   REFUND NUMBER
);
```

# **IMPLEMENTATION**

# LIST OF TASKS:

### **❖** ADMIN:

- 1. ADD TRAINS
- 2. DELETE TRAINS
- 3. MODIFY TRAINS
- 4. DISPLAY USERS
- 5. DISPLAY TRAINS

# **❖** USER:

- 1. SEARCH TRAINS
- 2. BOOK TICKET
- 3. VIEW TICKET
- 4. CANCEL TICKET
- 5. UPDATE PROFILE
- 6. DELETE ACCOUNT

### IMPLEMENTATION OF THE ABOVE QUERIES:

### ADMIN:

CODE FOR CONNECTION WITH THE DATABASE:

```
/*
THIS FILE CONTAINS DATABASE CONFIGURATION ASSUMING YOU ARE RUNN
ING mysql using user "root" and password ""

*/
define('db_server','localhost');
define('db_username','root');
define('db_password','');
define('db_name','rdbms');

//try connecting to the database
$conn=mysqli_connect(db_server,db_username,db_password,db_name);

//check the connection

if($conn==false)
{
    die('Error: Cannot connect!');
}
```

# CODE FOR ADD TRAINS:

```
$sql = "INSERT INTO trains (train_name,source,destination,arr_t
ime,dep_time,distance,no_of_seats,avlbl_seats) values(?,?,?,?,
,?,?,)";
    $stmt=mysqli_prepare($conn,$sql);
    if($stmt)
    {
```

```
mysqli_stmt_bind_param($stmt,'ssssssss',$param_train_na
sparam_source, $param_destination, $param_arr_time, $param_dep_
time,$param_distance,$param_no_of_seats,$param_avlbl_seats);
        // set these parameters
        $param_train_name = $train_name;
        $param_source=$source;
        $param_destination=$destination;
        $param_arr_time=$arr_time;
        $param_dep_time=$dep_time;
        $param_distance=$distance;
        $param_no_of_seats=$no_of_seats;
        $param_avlbl_seats=$avlbl_seats;
        //TRY TO EXECUTE THE QUERY
        if(mysqli_stmt_execute($stmt))
            header("location:awelcome.php");
        else{
            echo "Something went wrong... cannot redirect";
    mysqli stmt close($stmt);
```

### CODE FOR DELETE TRAINS:

```
<?php
include "config.php";

$tno=$_GET['train_no'];

$delete = "DELETE FROM trains WHERE train_no=$tno";

$query=mysqli_query($conn,$delete);
if($query)
{
    header('location:disptrain.php');
}

}</pre>
```

### CODE FOR MODIFY TRAINS:

```
$tn = $ GET['train no'];
    $train_name=$_POST['train_name'];
    $source=$ POST['source'];
    $destination=$ POST['destination'];
    $arr_time=$_POST['arr_time'];
    $dep_time=$_POST['dep_time'];
    $distance=$ POST['distance'];
    $no of seats=$ POST['no of seats'];
    $avlbl_seats=$_POST['avlbl_seats'];
    $query="UPDATE trains set train name='$train name', source='
$source',destination='$destination',
            arr_time='$arr_time',dep_time='$dep_time',distance=
$distance,no of seats=$no of seats,avlbl seats=$avlbl seats
            WHERE train no=$tn";
    $res= mysqli_query($conn,$query);
    if($res){
```

# **USER:**

### CODE FOR SEARCH TRAINS:

### CODE FOR BOOK TICKET:

```
// now we need to allocate the seats
       $aseat='T'.strval($tn).'-S-'.strval($tseat-$avseat);
       // now we need to insert these data into the ticket tabl
e in the database.
 $sql2 = "INSERT INTO tickets (user_id,train_no,class,doj,fare,
alloc_seat) values(?,?,?,?,?,?)";
       $stmt=mysqli_prepare($conn,$sql2);
       if($stmt)
         mysqli_stmt_bind_param($stmt,'ssssss',$param_userid,$p
aram_train_no, $param_class, $param_doj, $param_fare, $param_alloc_
seat);
           // set these parameters
           $param_userid=$id;
           $param train no=$tn;
           $param_class=$class;
           $param_doj=$doj;
           $param_fare=$fare;
           $param alloc seat=$aseat;
           //TRY TO EXECUTE THE QUERY
           if(mysqli stmt execute($stmt))
             // completed inserting the details now.. we need t
o display them as a ticket and ask for payment
```

```
// now we need to decrement the allocated sea
t and update in the database

$avseat-=1;

$sql3="UPDATE trains set avlbl_seats=$avseat WHERE
train_no={$tn}";

$pas=mysqli_query($conn,$sql3);

header("location:ticket.php");
}
else{
    echo "Something went wrong... cannot redirect";
}

mysqli_stmt_close($stmt);
}
```

# CODE FOR CANCEL/DELETE TICKET:

```
<?php
include "config.php";

$ticket_no=$_GET['ticket_no'];

$delete = "DELETE FROM tickets WHERE ticket_no=$ticket_no";

$delete1="DELETE FROM payment WHERE ticket_no=$ticket_no";

$query=mysqli_query($conn,$delete);

$query1=mysqli_query($conn,$delete1);

// the ticket has been deleted

//redirecting to welcome page
if($query&&$query1)</pre>
```

```
{
    header('location:welcome.php');
}
```

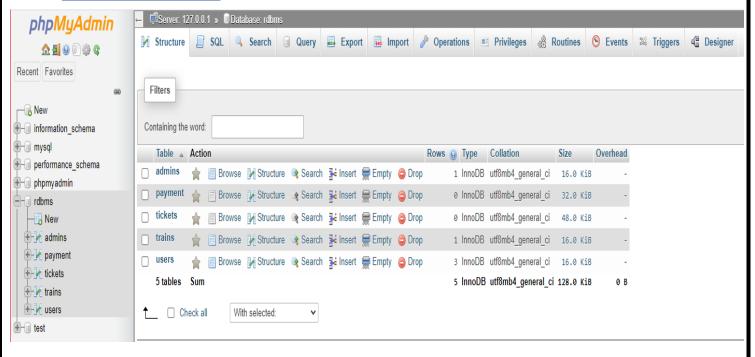
# CODE FOR VIEW TICKET:

```
session_start();
include "config.php";
$id=$ SESSION['id'];
$selectquery="SELECT * FROM tickets WHERE user_id={$id}";
$query=mysqli_query($conn,$selectquery);
$num = mysqli_num_rows($query);
if($num==0)
  <script>
  </script>';
else
$res=mysqli_fetch_array($query);
$prn=$res['PRN'];
if($prn!=0)
```

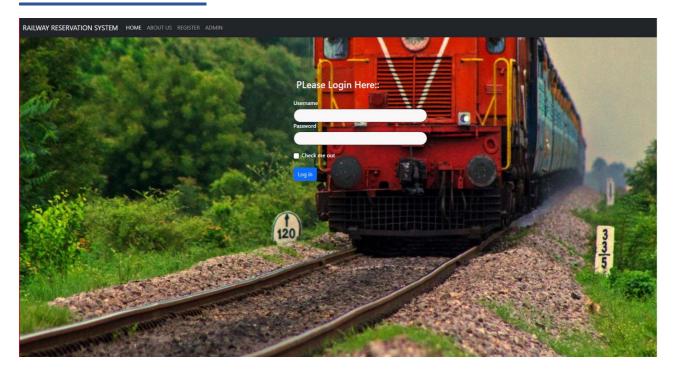
```
else{
  $status="NOT PAID";
$sql1="SELECT * FROM users WHERE id={$id}";
$query1=mysqli query($conn,$sql1);
$res1=mysqli fetch array($query1);
//res1 gives u all the details about the user
$tn=$res['train no'];
$sql2="SELECT * FROM trains WHERE train_no={$tn}";
$query2=mysqli query($conn,$sql2);
$res2=mysqli fetch array($query2);
// res2 gives u all the details about the train
<?php echo $res['user_id'];?>
   <?php echo $res1['username'];?>
   <?php echo $res1['mobile no'];?>
   <?php echo $res2['train name'];?>
   <\php echo \res2['source'];?>
   <?php echo $res2['destination']; ?>
   <?php echo $res['class'];?>
   <?php echo $res['doj'];?>
   <?php echo $res['fare'];?>
   <?php echo $res['alloc seat'];?>
```

# PROJECT DEMO:

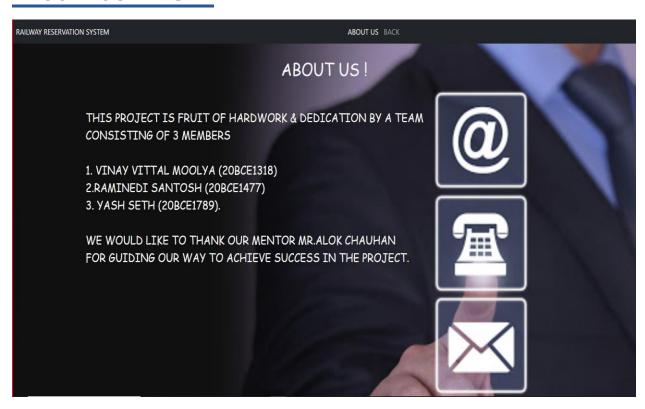
# phpMyAdmin: Implementation of the DB



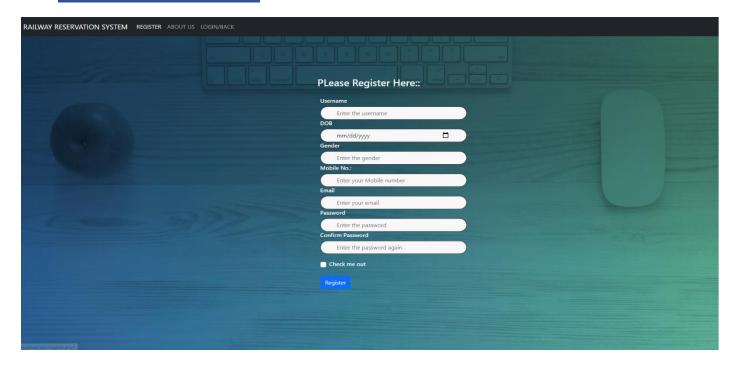
# LOGIN PORTAL:



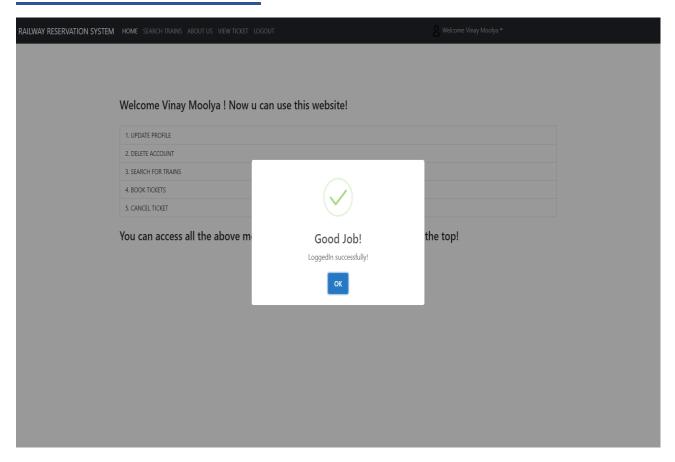
# ABOUT US PAGE:



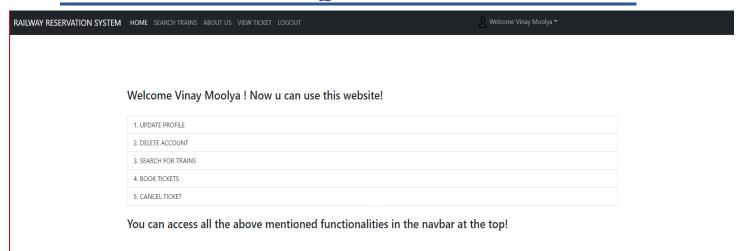
# REGISTER PAGE:



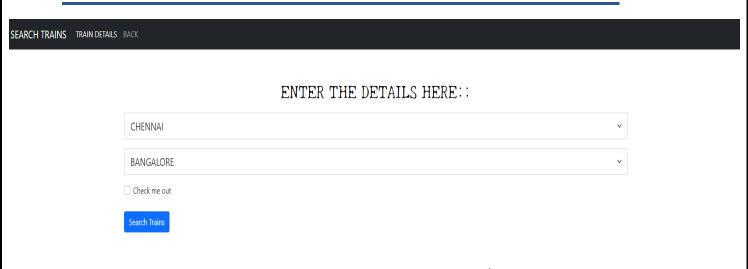
# SUCCESSFUL LOGIN:



# HOME PAGE: WITH QUICK NAVIGATION BAR



# SEARCH TRAINS: WITH REALTIME UPDATION



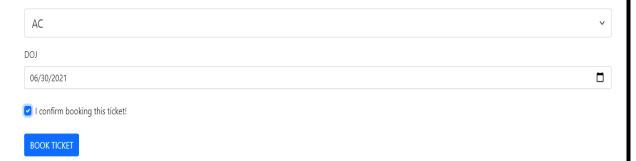
List of trains for the given query!

	OOK TICKET	AVLBL_SEATS	NO_OF_SEATS	DEP_TIME	ARR_TIME	DESTINATION	SOURCE	TRAIN_NAME	TRAIN_NO
1 CHENNAI EXPRESS CHENNAI BANGALORE 06:30:00 16:45:00 500 497		497	500	16:45:00	06:30:00	BANGALORE	CHENNAI	CHENNAI EXPRESS	1

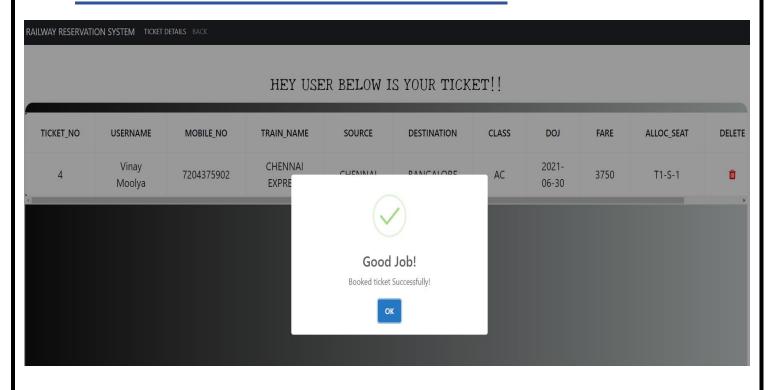
# BOOK TICKET:

RAILWAY RESERVATION SYSTEM CANCEL TICKET ABOUT US BACK LOGOUT

### PLease Enter details for booking Here::



# SUCCESSFULLY BOOKED TICKET:



# TICKET VIEW:

RAILWAY RESERVATION SYSTEM TICKET DETAILS BACK

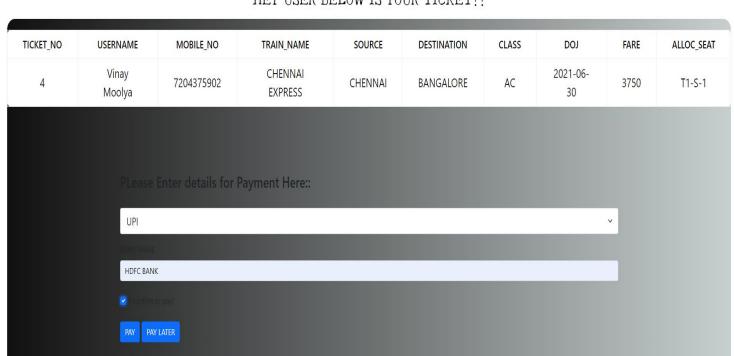
# HEY USER BELOW IS YOUR TICKET!!

USERNAME	MOBILE_NO	TRAIN_NAME	SOURCE	DESTINATION	CLASS	DOJ	FARE	ALLOC_SEAT	DELETE	PAY HERE
Vinay Moolya	7204375902	CHENNAI EXPRESS	CHENNAI	BANGALORE	AC	2021- 06-30	3750	T1-S-1	â	0

# PAYMENT PORTAL: WITH PROVISION TO PAY LATER

RAILWAY RESERVATION SYSTEM TICKET DETAILS BACK

### HEY USER BELOW IS YOUR TICKET!!



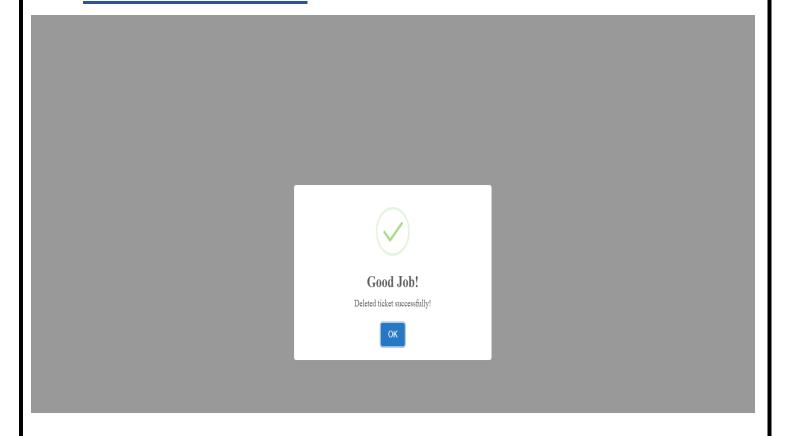
# VIEW TICKET IN HOME: WITH PAYMENT STATUS

RAILWAY RESERVATION SYSTEM TICKET DETAILS BACK

### HEY USER BELOW IS YOUR TICKET!!

USERNAME	MOBILE_NO	TRAIN_NAME	SOURCE	DESTINATION	CLASS	DOJ	FARE	ALLOC_SEAT	DELETE	STATUS
Vinay Moolya	7204375902	CHENNAI EXPRESS	CHENNAI	BANGALORE	AC	2021- 06-30	3750	T1-S-1	â	PAID

# DELETE TICKET:



# SOME MORE FUNCTIONALITIES:

UPDATE PROFILE	RAILWAY RESERVATION SYSTEM HO	OME SEARCH TRAINS ABOUT US	VIEW TICKET	LOGOUT	Welcome Vinay Moo	olya 🕶
DELETE ACCOUNT						

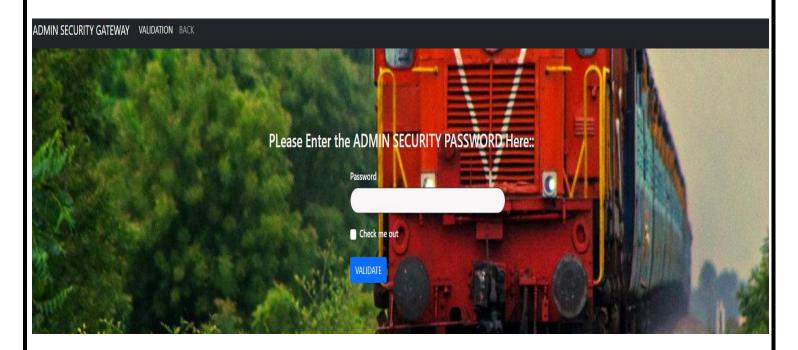
Welcome Vinay Moolya! Now u can use this website!

1. UPDATE PROFILE	
2. DELETE ACCOUNT	
3. SEARCH FOR TRAINS	
4. BOOK TICKETS	
5. CANCEL TICKET	

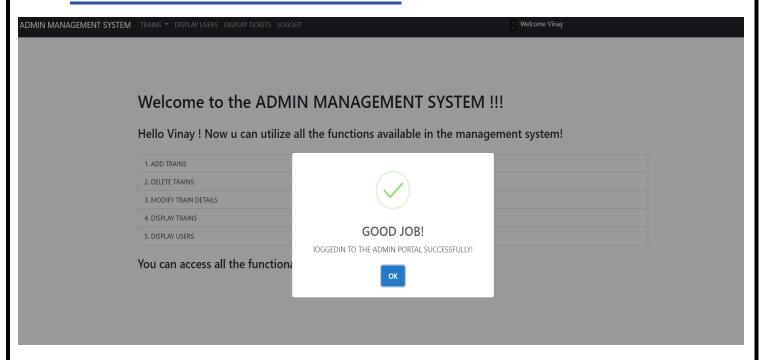
You can access all the above mentioned functionalities in the navbar at the top!

### ADMIN:

# ADMIN SECURITY GATEWAY FOR LOGIN:



# SUCCESSFUL ADMIN LOGIN:



### ADMIN HOME PAGE:

ADMIN MANAGEMENT SYSTEM TRAINS TO DISPLAY USERS DISPLAY TICKETS LOGOUT

# Welcome to the ADMIN MANAGEMENT SYSTEM !!!

Hello Vinay! Now u can utilize all the functions available in the management system!



You can access all the functionalities in the navbar at the top!

# DISPLAY USER DETAILS:

ADMIN MANAGEMENT SYSTEM USER DETAILS BACK

# List of users from the database is as follows!

ID	USERNAME	DOB	GENDER	MOBILE_NO	EMAIL	REGD_AT
4	Vinay Moolya	2002-08-22	М	7204375902	vinaysalpa@gmail.com	2021-05-03 11:14:05
5	Yash	2002-06-20	М	9878787094	yash123@gmail.com	2021-05-03 11:21:01
6	santosh	2002-02-14	М	9088897800	santosh123@gmail.com	2021-05-03 11:22:02

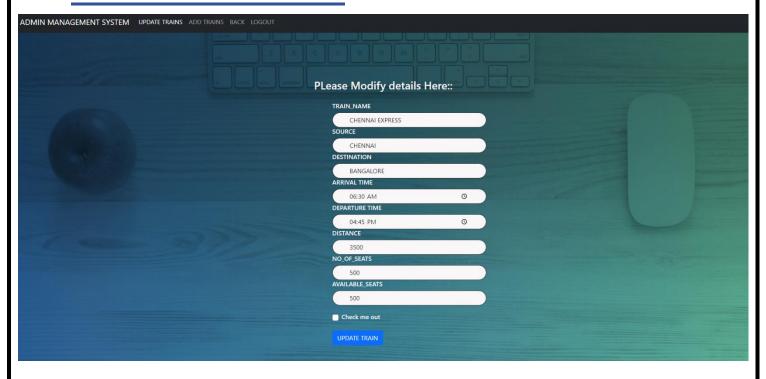
# MANAGE TRAIN DETAILS:

ADMIN MANAGEMENT SYSTEM TRAIN DETAILS BACK

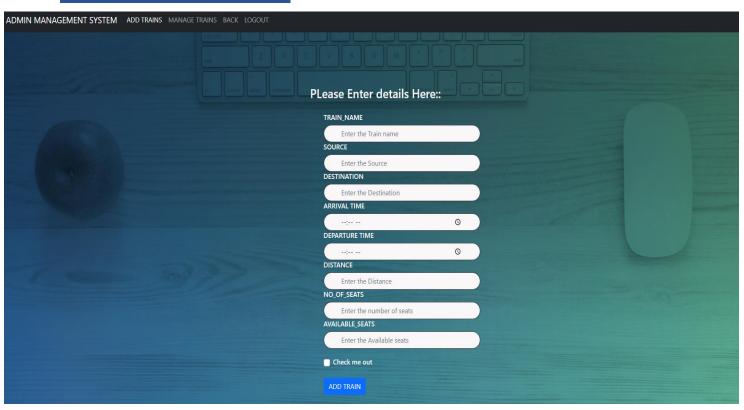
# List of trains from the database is as follows!

TRAIN_NO	TRAIN_NAME	SOURCE	DESTINATION	ARR_TIME	DEP_TIME	NO_OF_SEATS	AVLBL_SEATS	UPDATE	DELETE
1	CHENNAI EXPRESS	CHENNAI	BANGALORE	06:30:00	16:45:00	500	500	•	Û
2	SHATABDHI	BANGALORE	MUMBAI	23:30:00	13:25:00	250	238		Û

# **UPDATE TRAINS PAGE:**



# ADD TRAINS PAGE:



### AFTER DELETING A TRAIN:

ADMIN MANAGEMENT SYSTEM TRAIN DETAILS BACK

# List of trains from the database is as follows!

TRAIN_NO	TRAIN_NAME	SOURCE	DESTINATION	ARR_TIME	DEP_TIME	NO_OF_SEATS	AVLBL_SEATS	UPDATE	DELETE
2	SHATABDHI	BANGALORE	MUMBAI	23:30:00	13:25:00	250	238	<b>7</b>	Û

### FUTURE WORK:

WE HAVE MADE A PRIMITIVE FUNCTIONAL RAILWAY RESERVATION AND MANAGEMENT SYSTEM WITH CORE CRUD FUNCTIONALITIES.ADDITIONAL FEATURES CAN BE ADDED TO OPTIMIZE ITS PERFORMANCE AND MAKE IT MORE USER FRIENDLY.

- ✓ AUTOMATIC DELETION OF USER TICKET AFTER A FIXED INTERVAL OF TIME
- ✓ CREATE AN INTERACTIVE BOT FOR CUSTOMER SUPPORT
- ✓ CURRENTLY MADE FOR 1 RAILWAY STATION, IN THE FUTURE IT CAN BE EXTENDED TO MULTIPLE STATIONS.
- ✓ MAKE A MORE USER FRIENDLY INTERACTIVE FRONT-END.

### CONCLUSION:

We have successfully designed and implemented a database system by attempting to create a real-world application on Railway Reservation and Management system.

In our project Railway reservation system, we have stored all the information about the Trains scheduled and the users booking tickets and even status of tickets, seats etc. This data base is helpful for the applications which facilitate passengers to book the train tickets and check the details of trains from their place itself it avoids inconvenience of going to railway station for each query they get. We had considered the most important requirements only, many more features and details can be added to our project in order to obtain even more user friendly applications. These applications are already in progress and in future they can be upgraded and may become part of amazing technology.

\_\_\_\_\_\_