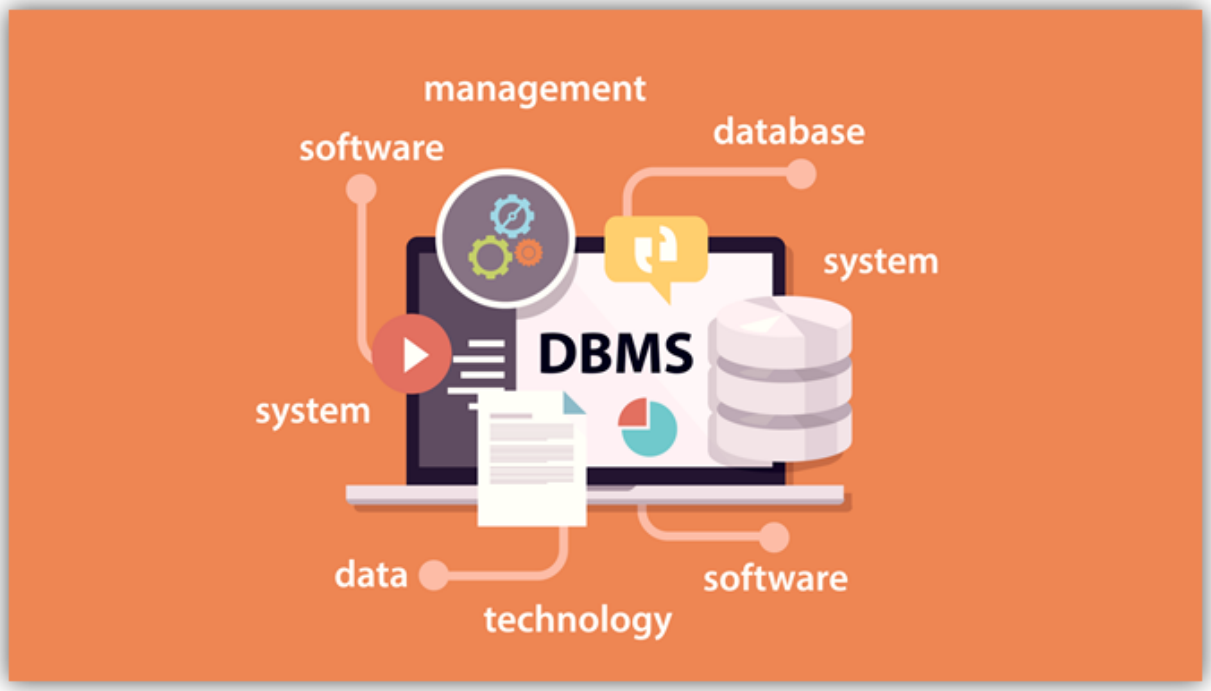
Railway Management System



DBMS PROJECT FINAL REPORT

PROPOSED TO:

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PREPARED BY:

MEEDHA(2K19/SE/072)

LIST OF CONTENTS

ACKNOWLEDGEMENT

The way can't walk itself. We have to walk on it. For that we must have a guide. Many guides have contributed to the successful completion of the project. I would like to place on record my grateful thanks to each one of them who helped me in this project.

Before i get into thick of the thing, i would like to add a few heartfelt words for the people who gave me unending time support whichever and whenever necessary, grateful thanks go to my department ,which provides me an opportunity as a project subject in 4th semester to develop a report work skill in this system analyzing .

I would like to thank my parents & friends for giving me full feedback when I was in trouble.

Special thanks go to MR. SANJAY KUMAR SIR to give their expert guidance to me whenever necessary.

PROBLEM STATEMENT

The purpose of Railway Management System is to automate the existing manual system by the help of computerised equipment and full-fledged computer software, fulfilling their requirements, so that their valuable data/information can be stored for a longer period with easy accessing and manipulation of the same. The required software and hardware are easily available and easy to work with.

Railway Management System, as described above, can lead to error free, secure, reliable and fast management systems.

It can assist the user to concentrate on their other activities rather than concentrating on the record keeping. Thus it will help organizations in better utilization of resources. The organization can maintain computerized records without redundant entries. That means that one need not to be distracted by information that is not relevant, while being able to reach the information.

The aim is to automate its existing manual system by the help of computerized equipment and full-fledged computer software , fulfilling their with easy requirements, so that their valuable data/information can be stored for a longer period with easy accessing and manipulation of the same.

Basically the project describes how to manage for good performance and better service for the clients.

INTRODUCTION

The “Railway Management System” has been developed to override the problems prevailing in the practising 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 the particular need of the company to carry out operations in a smooth and effective manner.

The application is reduced as much as possible to avoid errors while entering the data. It also provides an error message 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, as described above, can lead to error free, secure, reliable activities rather than concentrating on the record keeping. Thus, it will help organizations in better utilization of resources.

Every organization, whether big or small, has challenges to overcome and manage the information of ticket, train, passenger, train route, train schedule. Every railway reservation system has different train needs, therefore we design exclusive employee management systems that are adapted to your managerial requirements.

This is designed to assist in strategic planning, and will help you ensure that organization is equipped with the right level of information and details for your future goals. Also, for those busy executives who are always on

the go, our systems come with remote access features, which will allow you to manage your workforce anytime, at all times. These systems will ultimately allow you to better manage resources.

OBJECTIVES

- ❏ To manage the details of train, ticket, booking, passenger, train schedule.
- ❏ To reduce the possibilities of error while recording data, bill generation etc.
- ❏ To reduce the manual work for managing the train, ticket, train route, booking.
- ❏ It tracks all the details about the booking passenger, train schedule.

CONCEPTS USED

1. Functional Dependency

Functional Dependency (FD) is a constraint that determines the relation of one attribute to another attribute in a Database Management System (DBMS). Functional Dependency helps to maintain the quality of data in the database. It plays a vital role to find the difference between good and bad database design. A functional dependency is denoted by an arrow "→". The functional dependency of X on Y is represented by X → Y.

2. DDL

DDL stands for Data Definition Language. A DDL is a language used to define data structures and modify data. For example, DDL commands can be used to add, remove, or modify tables within a database. DDLs used in database applications are considered a subset of SQL, the Structured Query Language. However, a DDL may also define other types of data, such as XML.A Data Definition Language has a pre-defined syntax for describing data. For example, to build a new table using SQL syntax, the CREATE command is used, followed by parameters for the table name and column definitions. The DDL can also define the name of each column and the associated data type. Once a table is created, it can be modified using

the ALTER command. If the table is no longer needed, the DROP command can be used to delete the table.

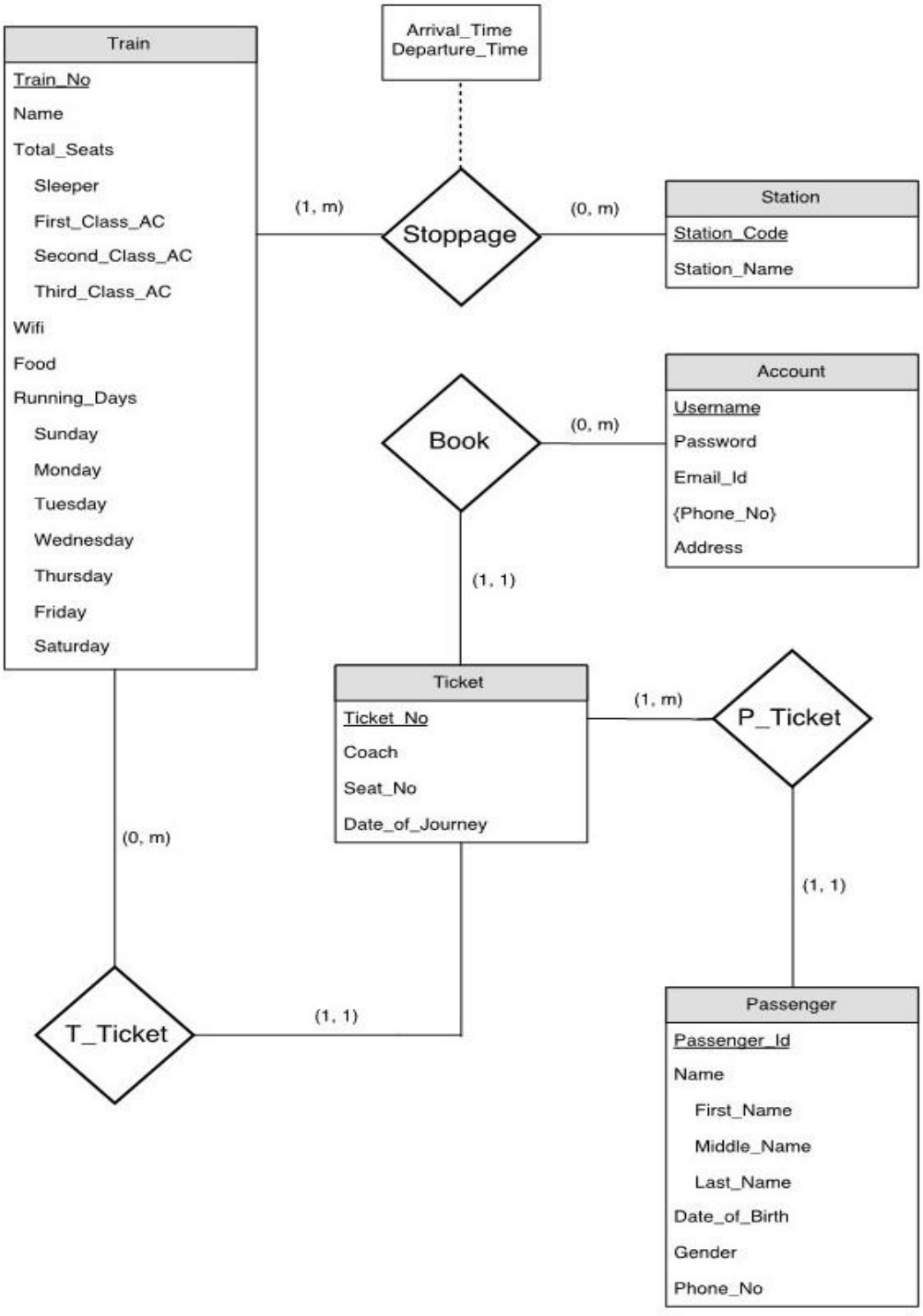
3. Normalisation

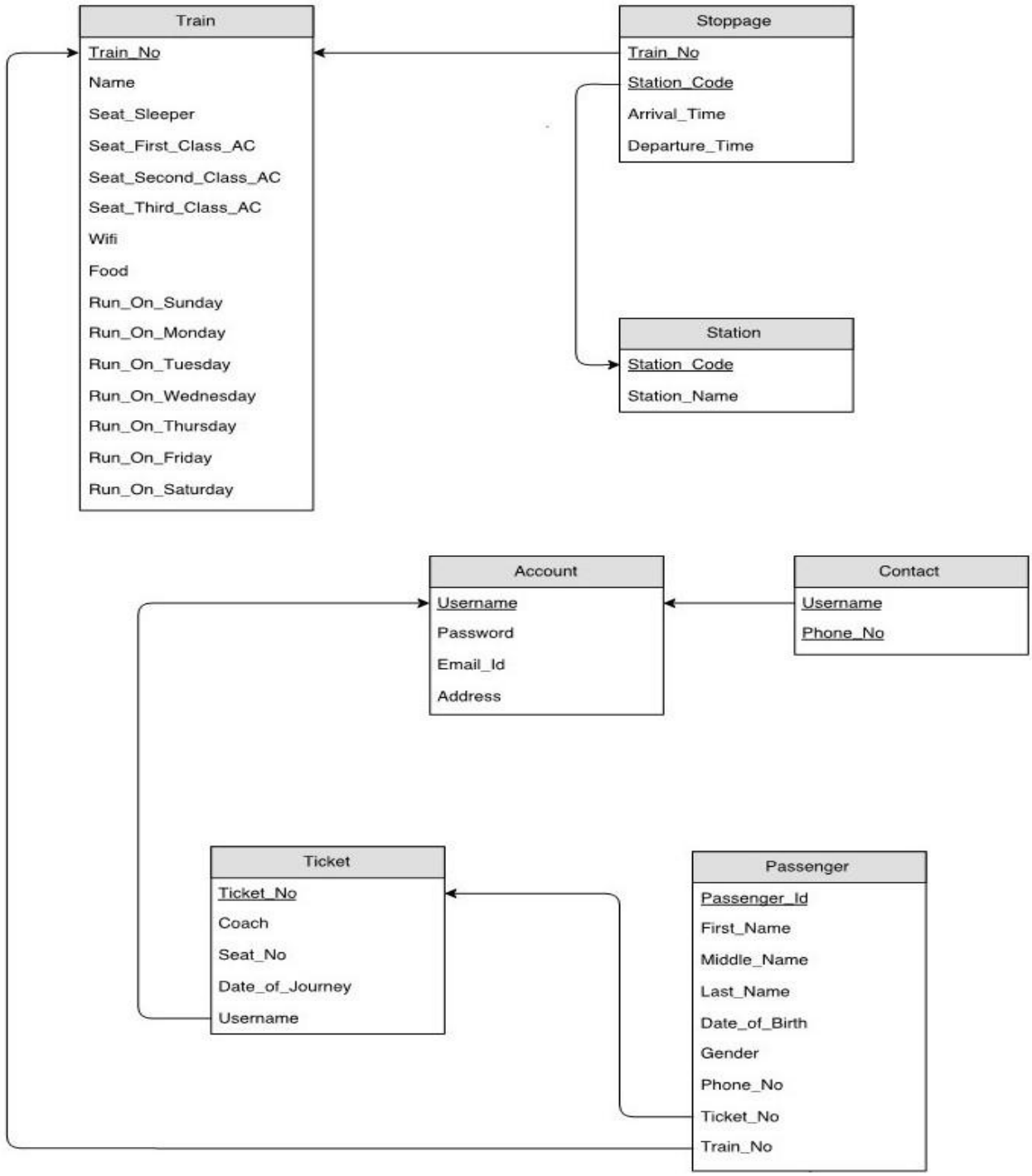
FIRST NORMAL FORM: As per the rule of first normal form, an attribute (column) of a table cannot hold multiple values. It should hold only atomic values. The above schema is in 1NF since all the attributes are atomic and not multivalued. Since a passenger could have multiple phone numbers,it would violate the 1NF rules.Hence we have created a separate table called contact to handle this.

SECOND NORMAL FORM: A table is said to be in 2NF if both the following conditions hold: -Table is in 1NF (First normal form) -No non-prime attribute is dependent on the proper subset of any candidate key of table. If in Passenger table we consider ticket_no and first_name as the candidate key,then date_of_birth would depend only on the name and it would violate the 2NF.

THIRD NORMAL FORM: A table design is said to be in 3NF if both the following conditions hold:-Table must be in 2NF -Transitive functional dependency of non-prime attribute on any super key should be removed. Our schema follows the above rules and hence is in 3NF.

DATA MODEL


Train
Train_No
Name
Total_Seats
Sleeper
First_Class_AC
Second_Class_AC
Third_Class_AC
Wifi
Food
Running_Days
Sunday
Monday
Tuesday
Wednesday
Thursday
Friday
Saturday
Arrival_Time
Departure_Time
(1, m)
Stoppage
(0, m)
Station
Station_Code
Station_Name
Book
(0, m)
Account
Username
Password
Email_Id
{Phone_No}
Address
(1, 1)
Ticket
Ticket_No
Coach
Seat_No
Date_of_Journey
(1, m)
P_Ticket
(1, 1)
Passenger
Passenger_Id
Name
First_Name
Middle_Name
Last_Name
Date_of_Birth
Gender
Phone_No
(0, m)
T_Ticket
(1, 1)


Train
Train_No
Name
Seat_Sleeper
Seat_First_Class_AC
Seat_Second_Class_AC
Seat_Third_Class_AC
Wifi
Food
Run_On_Sunday
Run_On_Monday
Run_On_Tuesday
Run_On_Wednesday
Run_On_Thursday
Run_On_Friday
Run_On_Saturday
Stoppage
Train_No
Station_Code
Arrival_Time
Departure_Time
Station
Station_Code
Station_Name
Account
Username
Password
Email_Id
Address
Contact
Username
Phone_No
Ticket
Ticket_No
Coach
Seat_No
Date_of_Journey
Username
Passenger
Passenger_Id
First_Name
Middle_Name
Last_Name
Date_of_Birth
Gender
Phone_No
Ticket_No
Train_No

CODE

```sql
create database Project;

use Project;

CREATE TABLE `Account` (
  `Username` varchar(15) NOT NULL,
  `Password` varchar(20) NOT NULL,
  `Email_Id` varchar(35) NOT NULL,
  `Address` varchar(50) DEFAULT NULL,
  PRIMARY KEY (`Username`)
);

INSERT INTO `Account` VALUES ('ajitesh','eba094d4d15bc478cdc9','ajitesh@pes.edu','Old airport road,bangalore'),('anantdadu','proxyman','dadu@cmu.ac.in','New York'),('atishay','qwerty','Atishay.jain.cse14@gnail.com','Rangmahal Mall, Panna'),('divyam310','goyal1002','divyam.goyal@gmail.com','Kota, Rajasthan'),('goku446','dejavu','goku@gmail.com','Kota, Rajasthan'),('prateek1996','ronaldoisgreat','prateek@gmail.com','New Delhi'),('user101','eba094d4d15bc478cdc9','atishay.jain.cse14@iitbhu.ac.in','Madhya Pradesh');

INSERT INTO `Account` VALUES ('admin','admin@1234','ajitesh@pes.edu','Old airport road,bangalore');

CREATE TABLE `Contact` (
  `Username` varchar(15) NOT NULL DEFAULT '',
  `Phone_No` char(10) NOT NULL DEFAULT '',
  PRIMARY KEY (`Username`,`Phone_No`),
  CONSTRAINT `Contact_ibfk_1` FOREIGN KEY (`Username`) REFERENCES `Account` (`Username`) ON DELETE CASCADE
);

INSERT INTO `Contact` VALUES ('anantdadu','8899887766'),('anantdadu','9876543210'),('atishay','7071475390'),('atishay','8009224040'),('ajitesh','7411452250'),('ajitesh','9650367698'),('ajitesh',
```

```sql
INSERT INTO `Contact` VALUES ('anantdadu','8899887766'),('anantdadu','9876543210'),('atishay',
'7071475390'),('atishay','8009224040'),('ajitesh','7411452250'),('ajitesh','9650367698'),('ajitesh',
'9968254144'),('divyam310','8989786765'),('goku446','9232453425'),('goku446','9989786756'),(
'prateek1996','9898342565'),('user101','7071475390');

CREATE TABLE `Train` (
  `Train_No` int(6) NOT NULL DEFAULT '0',
  `Name` varchar(25) NOT NULL,
  `Seat_Sleeper` int(4) NOT NULL,
  `Seat_First_Class_AC` int(4) NOT NULL,
  `Seat_Second_Class_AC` int(4) NOT NULL,
  `Seat_Third_Class_AC` int(4) NOT NULL,
  `Wifi` char(1) NOT NULL,
  `Food` char(1) NOT NULL,
  `Run_On_Sunday` char(1) NOT NULL,
  `Run_On_Monday` char(1) NOT NULL,
  `Run_On_Tuesday` char(1) NOT NULL,
  `Run_On_Wednesday` char(1) NOT NULL,
  `Run_On_Thursday` char(1) NOT NULL,
  `Run_On_Friday` char(1) NOT NULL,
  `Run_On_Saturday` char(1) NOT NULL,
  PRIMARY KEY (`Train_No`)
);

INSERT INTO `Train` VALUES (12559,'SHIV GANGA EXP',479,47,96,192,'N','Y','Y','Y','Y','Y','Y','Y','Y'
),(12560,'SHIV GANGA EXP',480,43,96,192,'N','Y','Y','Y','Y','Y','Y','Y','Y'),(12581,'BLR NDLS S F EX'
,432,48,80,144,'N','N','Y','Y','Y','Y','Y','Y','Y'),(12582,'BLR NDLS S F EX',432,48,80,144,'N','N',
'Y','Y','Y','Y','Y','Y','Y');

CREATE TABLE `Ticket` (
  `Ticket_No` int(10) NOT NULL AUTO_INCREMENT,
```

```
  `Train_No` int(6) NOT NULL,
  `Date_of_Journey` date NOT NULL,
  `Username` varchar(15) NOT NULL,
  PRIMARY KEY (`Ticket_No`),
  KEY `Username` (`Username`),
  KEY `Train_No` (`Train_No`),
  CONSTRAINT `Ticket_ibfk_1` FOREIGN KEY (`Username`) REFERENCES `Account` (`Username`) ON DELETE CASCADE,
  CONSTRAINT `Ticket_ibfk_2` FOREIGN KEY (`Train_No`) REFERENCES `Train` (`Train_No`) ON UPDATE CASCADE
);

INSERT INTO `Ticket` VALUES (1,12559,'2021-01-01','ajitesh');

CREATE TABLE `Passenger` (
  `Passenger_Id` int(11) NOT NULL AUTO_INCREMENT,
  `First_Name` varchar(20) NOT NULL,
  `Last_Name` varchar(20) NOT NULL,
  `Gender` char(1) NOT NULL,
  `Phone_No` char(10) DEFAULT NULL,
  `Ticket_No` int(10) NOT NULL,
  `Age` int(11) NOT NULL,
  `Class` varchar(20) NOT NULL,
  PRIMARY KEY (`Passenger_Id`),
  KEY `Ticket_No` (`Ticket_No`),
  CONSTRAINT `Passenger_ibfk_1` FOREIGN KEY (`Ticket_No`) REFERENCES `Ticket` (`Ticket_No`) ON DELETE CASCADE
);

INSERT INTO `Passenger` values ('1','admin','','F','233',1,'20','first class ac');
```

```sql
CREATE TABLE `Station` (
  `Station_Code` char(5) NOT NULL DEFAULT '',
  `Station_Name` varchar(25) NOT NULL,
  PRIMARY KEY (`Station_Code`)
);

INSERT INTO `Station` VALUES ('ALD','ALLAHABAD JUNCTION'),('CNB','KANPUR CENTRAL'),('GYN','GYANPUR ROAD'),('GZB','GHAZIABAD JUNCTION'),('BLR','BANGALORE'),('NDLS','NEW DELHI');

CREATE TABLE `Stoppage` (
  `Train_No` int(6) NOT NULL DEFAULT '0',
  `Station_Code` char(5) NOT NULL DEFAULT '',
  `Arrival_Time` time DEFAULT NULL,
  `Departure_Time` time DEFAULT NULL,
  PRIMARY KEY (`Train_No`,`Station_Code`),
  KEY `Station_Code` (`Station_Code`),
  CONSTRAINT `Stoppage_ibfk_1` FOREIGN KEY (`Train_No`) REFERENCES `Train` (`Train_No`) ON DELETE CASCADE ON UPDATE CASCADE,
  CONSTRAINT `Stoppage_ibfk_2` FOREIGN KEY (`Station_Code`) REFERENCES `Station` (`Station_Code`) ON DELETE CASCADE ON UPDATE CASCADE
);

Alter table Stoppage ADD CHECK (EXTRACT(HOUR FROM Arrival_Time) <24 AND EXTRACT(HOUR FROM Departure_Time) <24);

INSERT INTO `Stoppage` VALUES (12559,'ALD','22:05:00','22:30:00'),(12559,'CNB','01:30:00','01:38:00'),(12559,'BLR','19:20:00','19:30:00'),(12559,'NDLS','08:10:00',NULL),(12560,'ALD','03:45:00','04:10:00'),(12560,'CNB','01:00:00','01:05:00'),(12560,'BLR','07:00:00',NULL),(12560,'NDLS','18:35:00','18:55:00'),(12581,'ALD','01:20:00','01:45:00'),(12581,'CNB','04:15:00','04:20:00'),(12581,'GYN','23:31:00','23:33:00'),(12581,'GZB','11:30:00','11:32:00'),(12581,'BLR','22:20:00','22:30:00'),(12581,'NDLS','12:20:00',NULL),(12582,'ALD','07:45:00','08:15:00'),(12582,'CNB','04:55:00',
```

```
'05:00:00'),(12582,'GYN','09:21:00','09:23:00'),(12582,'GZB','23:03:00','23:05:00'),(12582,'BLR',
'11:20:00',NULL),(12582,'NDLS','22:15:00','22:25:00');
SELECT * FROM Stoppage;

select a.Train_No from Stoppage as a join Stoppage as b on a.Train_No = b.Train_No
where a.Station_Code = "BLR" and b.Station_Code = "NDLS";

delimiter //
create trigger cancellation
 before delete on Ticket
 for each row
BEGIN
  set @trainno=old.train_no;
  set @Ticketno=old.Ticket_no;
  SET @class = (SELECT p.class
                FROM PASSENGER p
                WHERE p.Ticket_no = @Ticketno);
  if @class='first class ac' then
    UPDATE Train set Seat_First_Class_AC = Seat_First_Class_AC+1 WHERE Train_No = @trainno ;
  elseif @class='sleeper' then
    UPDATE Train set Seat_Sleeper = Seat_Sleeper+1 WHERE Train_No = @trainno ;
  elseif @class='second class ac' then
    UPDATE Train set Seat_Second_Class_AC = Seat_Second_Class_AC+1 WHERE Train_No = @trainno ;
  elseif @class='third class ac' then
    UPDATE Train set Third_Class_AC = Seat_Third_Class_AC+1 WHERE Train_No = @trainno ;
  end if;
END//
delimiter ;


create view a(Station_code,Train_no,Arrival_Time)as
```

```sql
SELECT Stoppage.Station_code,Train_no,Arrival_Time
from Station inner join Stoppage on Station.Station_code=Stoppage.Station_code where Station.Station_Name='BANGALORE';

select * from a;

create view b(Station_code,Train_no,Arrival_Time)as
SELECT Station_code,Train_no,Arrival_Time
from a where EXTRACT(HOUR FROM Arrival_Time)<19;

select * from b;

create view c(Station_code,Train_no,Arrival_Time,First_Class_seats,Run_on_monday)as
SELECT Station_code,Train.Train_no,Arrival_Time,Seat_First_Class_AC,Run_on_monday
from Train inner join b on Train.Train_No=b.Train_No where Train.Run_On_Monday='Y' AND Train.Seat First Class AC >0;


select *from c;

SELECT SUM(First_class_seats)
FROM c;

create view f(Departure_time)as
 SELECT Departure_time
   FROM Stoppage
   WHERE Station_Code IN (SELECT Station_code
         FROM Station
         WHERE Station_Name='New Delhi') ;
select * from f;
select MAX(Departure_time) from f;

Select Phone_no from Contact where username IN (Select Username from Account where Email_id='ajitesh@pes.edu');
select * from account;
select * from contact;
select * from passenger;
select * from station;
select * from stoppage;
select * from ticket;
select * from train;
```

OUTPUT

```
mysql> USE PROJECT;
Database changed
mysql> SHOW TABLES;
+-------------------+
| Tables_in_project |
+-------------------+
| a                 |
| account           |
| b                 |
| c                 |
| contact           |
| f                 |
| passenger         |
| station           |
| stoppage          |
| ticket            |
| train             |
+-------------------+
11 rows in set (0.01 sec)

mysql> DESCRIBE ACCOUNT;
+----------+-------------+------+-----+---------+-------+
| Field    | Type        | Null | Key | Default | Extra |
+----------+-------------+------+-----+---------+-------+
| Username | varchar(15) | NO   | PRI | NULL    |       |
| Password | varchar(20) | NO   |     | NULL    |       |
| Email_Id | varchar(35) | NO   |     | NULL    |       |
| Address  | varchar(50) | YES  |     | NULL    |       |
+----------+-------------+------+-----+---------+-------+
4 rows in set (0.00 sec)

mysql> DESCRIBE PASSENGER;
+--------------+-------------+------+-----+---------+----------------+
| Field        | Type        | Null | Key | Default | Extra          |
+--------------+-------------+------+-----+---------+----------------+
| Passenger_Id | int         | NO   | PRI | NULL    | auto_increment |
| First_Name   | varchar(20) | NO   |     | NULL    |                |
| Last_Name    | varchar(20) | NO   |     | NULL    |                |
| Gender       | char(1)     | NO   |     | NULL    |                |
| Phone_No     | char(10)    | YES  |     | NULL    |                |
| Ticket_No    | int         | NO   | MUL | NULL    |                |
| Age          | int         | NO   |     | NULL    |                |
| Class        | varchar(20) | NO   |     | NULL    |                |
+--------------+-------------+------+-----+---------+----------------+
8 rows in set (0.00 sec)
```

```
mysql> SELECT * FROM A;
+--------------+----------+--------------+
| Station_code | Train_no | Arrival_Time |
+--------------+----------+--------------+
| BLR          |    12559 | 19:20:00     |
| BLR          |    12560 | 07:00:00     |
| BLR          |    12581 | 22:20:00     |
| BLR          |    12582 | 11:20:00     |
+--------------+----------+--------------+
4 rows in set (0.00 sec)

mysql> SELECT * FROM B;
+--------------+----------+--------------+
| Station_code | Train_no | Arrival_Time |
+--------------+----------+--------------+
| BLR          |    12560 | 07:00:00     |
| BLR          |    12582 | 11:20:00     |
+--------------+----------+--------------+
2 rows in set (0.00 sec)

mysql> SELECT * FROM C;
+--------------+----------+--------------+-------------------+---------------+
| Station_code | Train_no | Arrival_Time | First_Class_seats | Run_on_monday |
+--------------+----------+--------------+-------------------+---------------+
| BLR          |    12582 | 11:20:00     |                48 | Y             |
| BLR          |    12560 | 07:00:00     |                43 | Y             |
+--------------+----------+--------------+-------------------+---------------+
2 rows in set (0.00 sec)

mysql> SELECT * FROM F;
+----------------+
| Departure_time |
+----------------+
| NULL           |
| 18:55:00       |
| NULL           |
| 22:25:00       |
+----------------+
4 rows in set (0.00 sec)
```

```
mysql> SELECT * FROM ACCOUNT;
+-------------+----------------------+---------------------------------+---------------------------+
| Username    | Password             | Email_Id                        | Address                   |
+-------------+----------------------+---------------------------------+---------------------------+
| admin       | admin@1234           | ajitesh@pes.edu                 | Old airport road,bangalore |
| ajitesh     | eba094d4d15bc478cdc9 | ajitesh@pes.edu                 | Old airport road,bangalore |
| anantdadu   | proxyman             | dadu@cmu.ac.in                  | New York                  |
| atishay     | qwerty               | Atishay.jain.cse14@gnail.com    | Rangmahal Mall, Panna     |
| divyam310   | goyal1002            | divyam.goyal@gmail.com          | Kota, Rajasthan           |
| goku446     | dejavu               | goku@gmail.com                  | Kota, Rajasthan           |
| prateek1996 | ronaldoisgreat       | prateek@gmail.com               | New Delhi                 |
| user101     | eba094d4d15bc478cdc9 | atishay.jain.cse14@iitbhu.ac.in | Madhya Pradesh            |
+-------------+----------------------+---------------------------------+---------------------------+
8 rows in set (0.00 sec)

mysql> SELECT * FROM CONTACT;
+-------------+------------+
| Username    | Phone_No   |
+-------------+------------+
| ajitesh     | 7411452250 |
| ajitesh     | 9650367698 |
| ajitesh     | 9968254144 |
| anantdadu   | 8899887766 |
| anantdadu   | 9876543210 |
| atishay     | 7071475390 |
| atishay     | 8009224040 |
| divyam310   | 8989786765 |
| goku446     | 9232453425 |
| goku446     | 9989786756 |
| prateek1996 | 9898342565 |
| user101     | 7071475390 |
+-------------+------------+
12 rows in set (0.00 sec)

mysql> SELECT * FROM PASSENGER;
+--------------+------------+-----------+--------+----------+-----------+-----+----------------+
| Passenger_Id | First_Name | Last_Name | Gender | Phone_No | Ticket_No | Age | Class          |
+--------------+------------+-----------+--------+----------+-----------+-----+----------------+
|            1 | admin      |           | F      | 233      |         1 |  20 | first class ac |
+--------------+------------+-----------+--------+----------+-----------+-----+----------------+
1 row in set (0.00 sec)
```

```
mysql> SELECT * FROM STATION;
+--------------+--------------------+
| Station_Code | Station_Name       |
+--------------+--------------------+
| ALD          | ALLAHABAD JUNCTION |
| BLR          | BANGALORE          |
| CNB          | KANPUR CENTRAL     |
| GYN          | GYANPUR ROAD       |
| GZB          | GHAZIABAD JUNCTION |
| NDLS         | NEW DELHI          |
+--------------+--------------------+
6 rows in set (0.00 sec)

mysql> SELECT * FROM STOPPAGE;
+----------+--------------+--------------+----------------+
| Train_No | Station_Code | Arrival_Time | Departure_Time |
+----------+--------------+--------------+----------------+
|    12559 | ALD          | 22:05:00     | 22:30:00       |
|    12559 | BLR          | 19:20:00     | 19:30:00       |
|    12559 | CNB          | 01:30:00     | 01:38:00       |
|    12559 | NDLS         | 08:10:00     | NULL           |
|    12560 | ALD          | 03:45:00     | 04:10:00       |
|    12560 | BLR          | 07:00:00     | NULL           |
|    12560 | CNB          | 01:00:00     | 01:05:00       |
|    12560 | NDLS         | 18:35:00     | 18:55:00       |
|    12581 | ALD          | 01:20:00     | 01:45:00       |
|    12581 | BLR          | 22:20:00     | 22:30:00       |
|    12581 | CNB          | 04:15:00     | 04:20:00       |
|    12581 | GYN          | 23:31:00     | 23:33:00       |
|    12581 | GZB          | 11:30:00     | 11:32:00       |
|    12581 | NDLS         | 12:20:00     | NULL           |
|    12582 | ALD          | 07:45:00     | 08:15:00       |
|    12582 | BLR          | 11:20:00     | NULL           |
|    12582 | CNB          | 04:55:00     | 05:00:00       |
|    12582 | GYN          | 09:21:00     | 09:23:00       |
|    12582 | GZB          | 23:03:00     | 23:05:00       |
|    12582 | NDLS         | 22:15:00     | 22:25:00       |
+----------+--------------+--------------+----------------+
20 rows in set (0.00 sec)

mysql> SELECT * FROM TICKET;
+-----------+----------+-----------------+----------+
| Ticket_No | Train_No | Date_of_Journey | Username |
+-----------+----------+-----------------+----------+
|         1 |    12559 | 2021-01-01      | ajitesh  |
+-----------+----------+-----------------+----------+
```

```
mysql> SELECT * FROM TRAIN;
+----------+-----------------+---------+---------------+----------------+----------------+
| Train_No | Name            | Sleeper | First_Class_AC | Second_Class_AC | Third_Class_AC |
+----------+-----------------+---------+---------------+----------------+----------------+
|    12559 | SHIV GANGA EXP  |     479 |            47 |             96 |            192 |
|    12560 | SHIV GANGA EXP  |     480 |            43 |             96 |            192 |
|    12581 | BLR NDLS S F EX |     432 |            48 |             80 |            144 |
|    12582 | BLR NDLS S F EX |     432 |            48 |             80 |            144 |
+----------+-----------------+---------+---------------+----------------+----------------+
4 rows in set (0.00 sec)
```

```
+------+------+--------+--------+---------+-----------+----------+--------+----------+
| Wifi | Food | Sunday | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday |
+------+------+--------+--------+---------+-----------+----------+--------+----------+
| N    | Y    | Y      | Y      | Y       | Y         | Y        | Y      | Y        |
| N    | Y    | Y      | Y      | Y       | Y         | Y        | Y      | Y        |
| N    | N    | Y      | Y      | Y       | Y         | Y        | Y      | Y        |
| N    | N    | Y      | Y      | Y       | Y         | Y        | Y      | Y        |
+------+------+--------+--------+---------+-----------+----------+--------+----------+
```

CONCLUSION

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 trains, seats etc.

This database is helpful for the applications which facilitate passengers to book the train tickets and check the details of trains and their status from their place itself; it avoids inconveniences of going to railway station for each and every query they get.

We had considered the most important requirements only, many more features and details can be added to our project inorder 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.