



IT 214 : Database Management Systems

Project Description

Title: Railway Management System

## Team Details

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## DDL Statements:

CREATE SCHEMA railways;

SET SEARCH\_PATH TO railways;

### Station

```
create Table Station
(
  StationID int not null,
  StationName varchar(50) not null,
  primary key (StationID)
)
```

### Train

```
create Table Train
(
  TrainID int not null,
  TrainName varchar(50) not null,
  TrainType varchar(50) not null,
  SeatsClass1 int,
  SeatsClass2 int,
  SeatsClass3 int,
  FareClass1 int,
  FareClass2 int,
  FareClass3 int,
  SourceID int null,
  DestID int null,
  primary key (TrainID),
  foreign key (SourceID) references Station(StationID) on update cascade on delete cascade,
  foreign key (DestID) references Station(StationID) on update no action on delete no action
)
```

### AvailableDays

```
create Table AvailableDays
(
  TrainID int not null,
  Days varchar(10) not null,
  primary key (TrainID, Days)
)
```

### TrainStatus

```
create Table TrainStatus
(
  TrainID int not null,
  AvailableDate varchar(10) not null,
  BookedSeats1 int,
  BookedSeats2 int,
  BookedSeats3 int,
  WaitingSeats1 int,
  WaitingSeats2 int,
  WaitingSeats3 int,
  AvailableSeats1 int,
  AvailableSeats2 int,
  AvailableSeats3 int,
  primary key (TrainID, AvailableDate),
  foreign key (TrainID) references Train(TrainID) on update cascade on delete cascade
)
```

### Route

```
create Table Route
(
  TrainID int not null,
  StopNumber int not null,
  StationID int not null,
  SourceDist int not null,
  ArrTime text not null,
  DeptTime text not null,
  primary key (TrainID, StopNumber, StationID),
  foreign key (TrainID) references Train(TrainID) on update cascade on delete cascade,
  foreign key (StationID) references Station(StationID) on update cascade on delete cascade
)
```

## User

```
create Table "User"  
(  
  EmailID varchar(20) not null,  
  UName varchar(30) not null,  
  Password varchar(20) not null,  
  Age int not null,  
  Gender varchar(1) not null,  
  MobileNo numeric(10,0) not null,  
  City varchar(20) not null,  
  State varchar(20) not null,  
  primary key (EmailID)  
)
```

## Passenger

```
create Table Passenger  
(  
  PNR varchar(10) not null,  
  PName varchar(30) not null,  
  Gender varchar(1) not null,  
  Age int not null,  
  SeatNo varchar(5) not null,  
  Class int not null,  
  Fare int not null,  
  SourceID int not null,  
  DestID int not null,  
  primary key (PNR),  
  foreign key (SourceID) references Station(StationID) on update cascade on delete cascade,  
  foreign key (DestID) references Station(StationID) on update no action on delete no action  
)
```

## Reservation

```
create Table Reservation
(
  EmailID varchar(20) not null,
  PNR varchar(10) not null,
  TrainID int not null,
  AvailableDate varchar(10) not null,
  ReservedStatus varchar(10) null,
  ReservationDate text not null,
  primary key (EmailID, PNR, TrainID, AvailableDate),
  foreign key (TrainID, AvailableDate) references TrainStatus(TrainID, AvailableDate) on
  update cascade on delete cascade,
  foreign key (EmailID) references "User"(EmailID) on update cascade on delete cascade,
  foreign key (PNR) references Passenger(PNR) on update cascade on delete cascade
)
```

## Employee

```
create Table Employee
(
  EmpID int not null,
  EmpName varchar(30) not null,
  Category varchar(20) not null,
  TrainID int null,
  StationID int null,
  PhoneNo numeric(10,0),
  EmailID varchar(20),
  Address varchar(50),
  primary key(EmpID),
  foreign key (TrainID) references Train(TrainID) on update cascade on delete cascade,
  foreign key (StationID) references Station(StationID) on update cascade on delete cascade
)
```