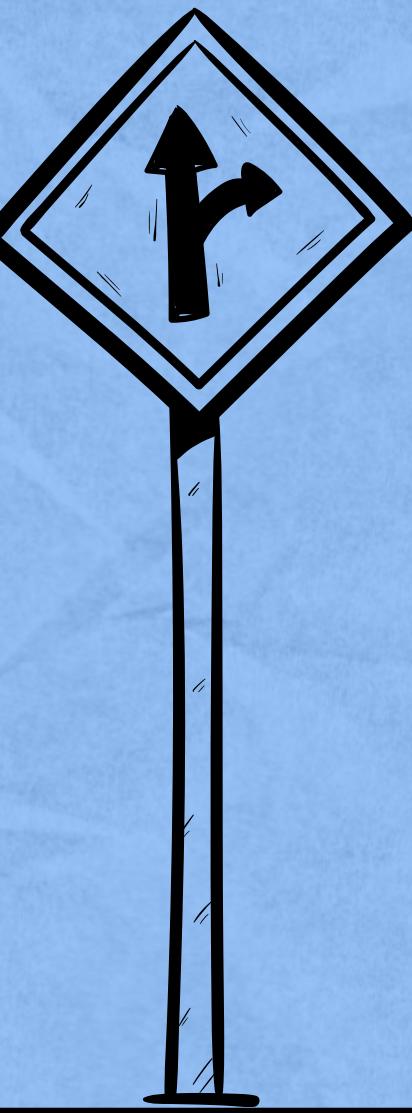
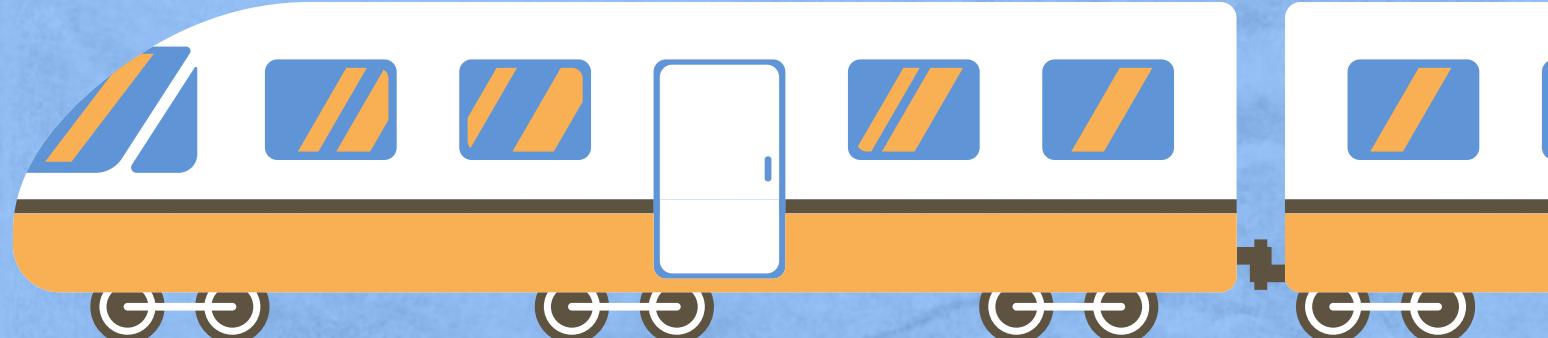


Railway System Database Management System



Train

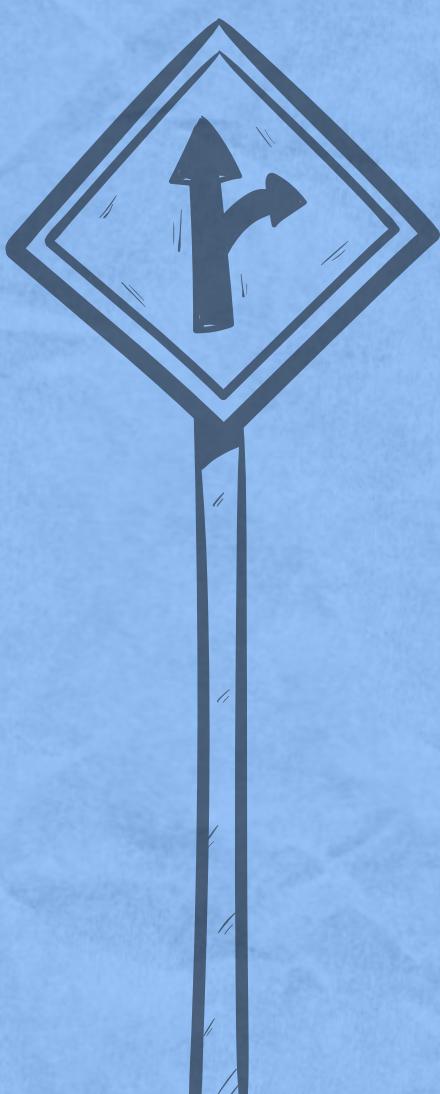


Create Table

```
CREATE TABLE Train(TrainNumber int  
PRIMARY KEY, speed int not null );
```

```
CREATE TABLE Station(StationCode  
varchar(20) PRIMARY KEY, StationName  
varchar(20) not null,NumberOfSeats int );
```

```
CREATE TABLE Schedule (Tripcode  
varchar(20) PRIMARY KEY, departureCity  
varchar(20) not null, arriviality varchar(20)  
not null, DepartureTime timestamp not null,  
Distance varchar(20) not null, Price int not  
null , StationC varchar(20),FOREIGN KEY  
(StationC) REFERENCES Station, TrainNum  
int ,FOREIGN KEY (TrainNum) REFERENCES  
Train);
```



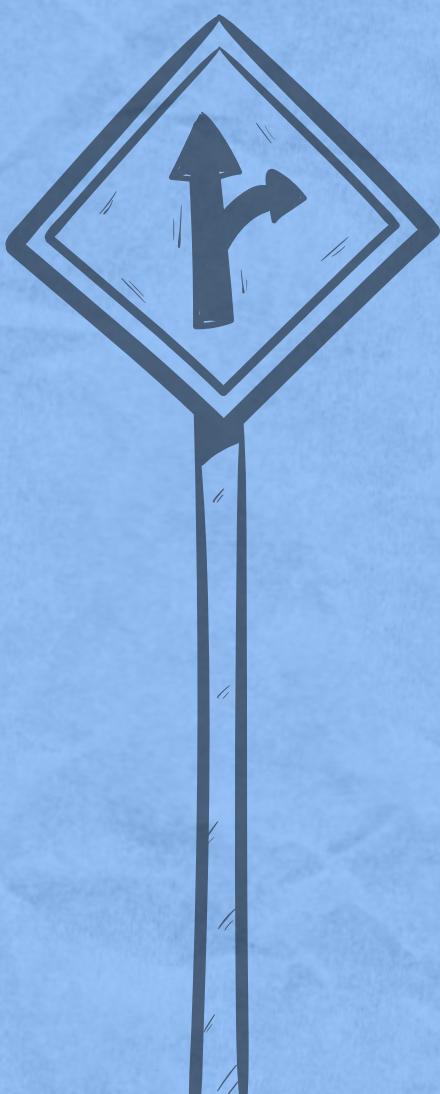
Train



Create Table

```
CREATE TABLE Traveler (NumberBooking  
varchar(20) PRIMARY KEY,Name varchar(20)  
not null , PhoneNumber varchar(15)not  
null,age varchar(20) not null);
```

```
CREATE TABLE Ticket (NumTicket  
varchar(20) PRIMARY KEY, DateT Date not  
null ,TripNumber varchar(15)not  
null,clientNumber varchar(20) not null, SC  
varchar(20)not null, FOREIGN KEY (SC)  
REFERENCES Station, FOREIGN KEY  
(clientNumber) REFERENCES Traveler,  
FOREIGN KEY (TripNumber) REFERENCES  
Schedule);
```



Train



Insert:

```
INSERT INTO Train (TrainNumber, speed  
 )VALUES (96,120);
```

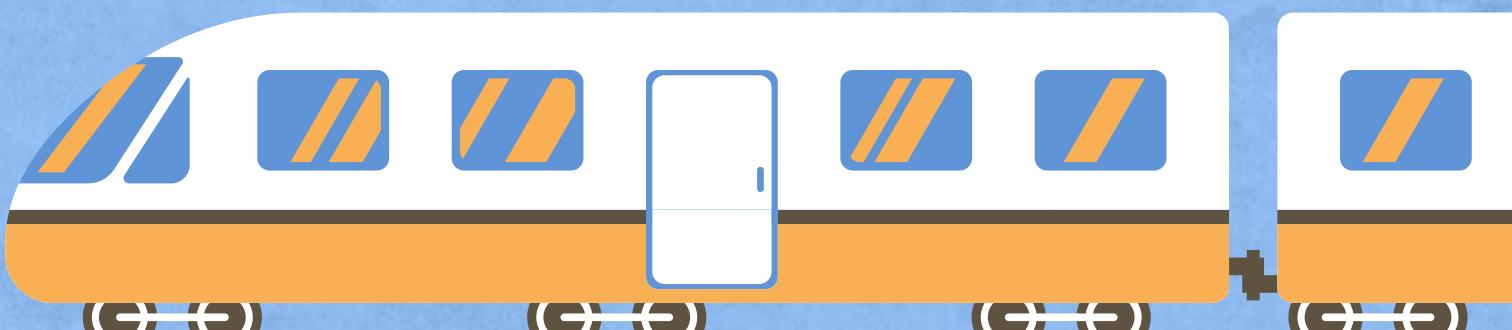
```
INSERT INTO Station (StationCode,  
StationName ,NumberOfSeats )VALUES  
('A96','Eastern Riyadh',50);
```

```
INSERT INTO Schedule (Tripcode,  
departureCity, arrivality, DepartureTime,  
Distance , Price , StationC,TrainNum )  
VALUES ('700S','Riyadh','Taif',  
TIMESTAMP'2024-03-13  
12:34:56',785,100,'A96',96);
```

```
INSERT INTO Traveler (NumberBooking  
,Name, PhoneNumber,age)  
VALUES ('150','Ahmad','0555588890','26')
```

```
INSERT INTO Ticket (NumTicket,DateT  
,TripNumber,clientNumber, SC)values  
('900',date'2024-03-13','700S','150','A96');
```

Train



Task:

1- select* from Train;

2-select StationCode,StationName from Station ;

3-select departureCity, arrivality, DepartureTime, Distance , Price
from Schedule where Tripcode ='700S';

4-select * from Traveler;

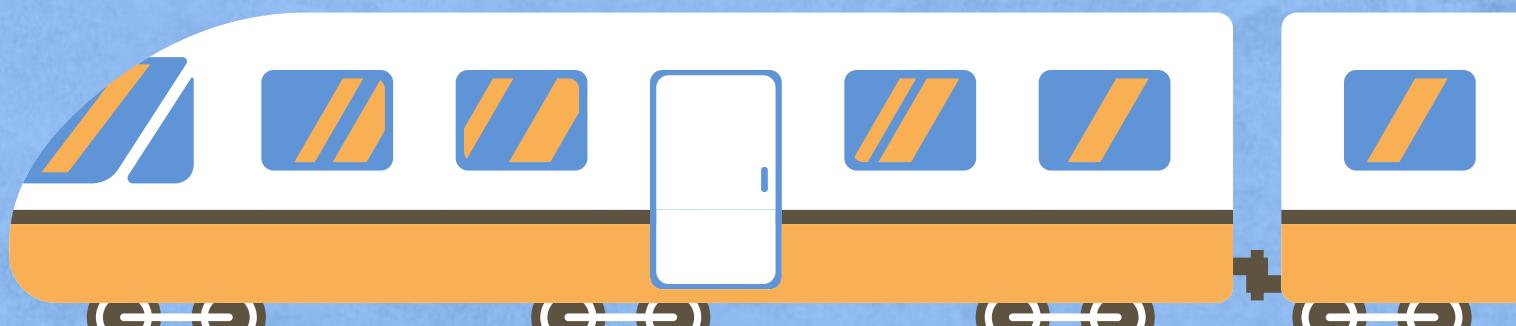
5-select * from Ticket
where clientNumber='150';

6-

select TripNumber,clientNumber
from Ticket where DateT=date'2024-03-13' ;

7- select to_char(DepartureTime,'DD/MM/YYYY
HH24:MI:SS') DepartureTime
from Schedule where DepartureTime between
TO_DATE('2024-03-14','YYYY-MM-DD')
and TO_DATE('2024-03-20','YYYY-MM-DD');

Train



Task:

8-SELECT Tripcode , NumberOfSeats
FROM Schedule s
JOIN NumberOfSeats ON Tripcode = Tripcode

9- select Tripcode, departureCity, arrivality from Schedule;

10-

select Sum(Price) DepartureTime
from Schedule where DepartureTime between
TO_DATE('2024-03-13','YYYY-MM-DD')
and TO_DATE('2024-03-20','YYYY-MM-DD');

11-

SELECT AVG(speed) AS average_speed FROM Train;

12-

SELECT departureCity , COUNT (*) AS tripCount
FROM Schedule

GROUP BY departureCity

ORDER BY tripCount ;

SELECT arrivality , COUNT (*)AS trip_count

FROM Schedule

GROUP BY arrivality

ORDER BY trip_count ;

Train



Task:

13-

```
SELECT * FROM Schedule ORDER BY  
DepartureTime;
```

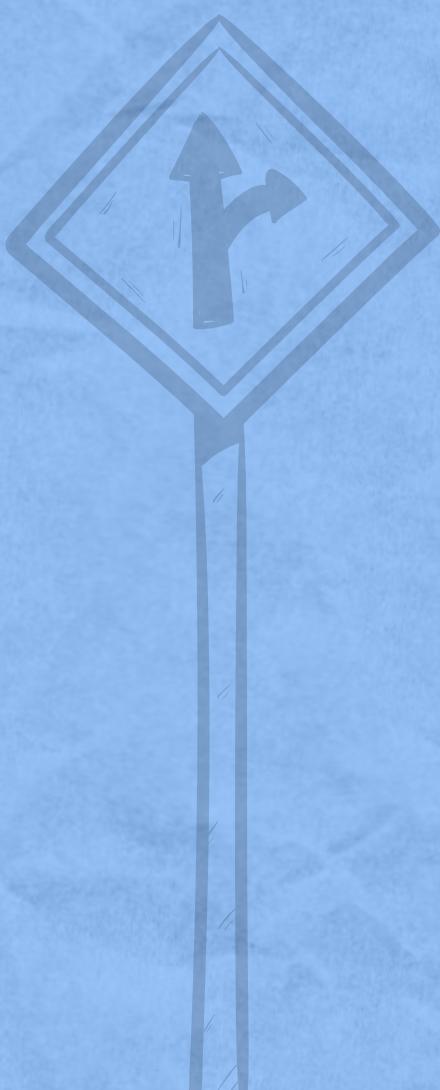
14-

```
SELECT TrainNum , Sum(Distance ) FROM Schedule  
GROUP BY TrainNum;
```

```
select TrainNum,Distance from Schedule;
```

15-

```
SELECT TripNumber, COUNT(*) AS num_tickets  
FROM Ticket  
GROUP BY TripNumber;
```

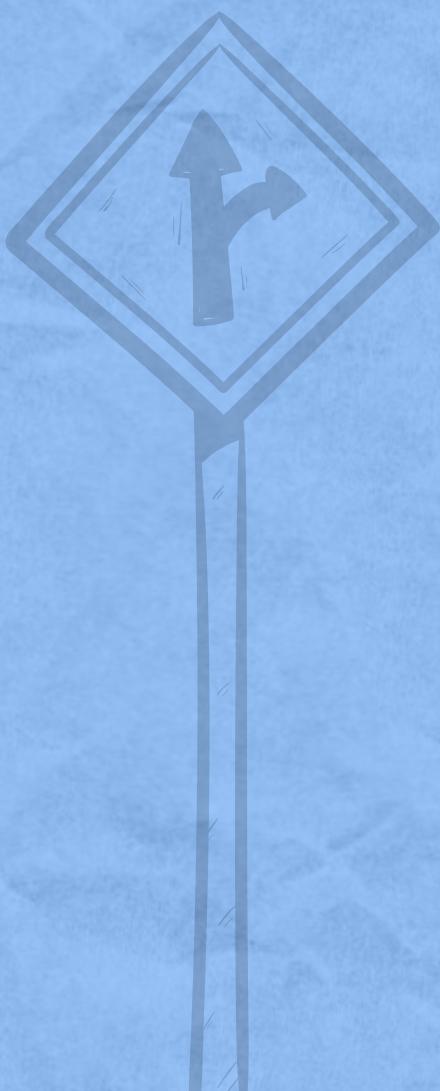


Train



Anwar Hamed Alsyfian

Safa Nasser



Train

