

Railway System Database

Create DB & Tables :

```
create database railway__system;
```

```
create table passenger(passenger__id int NOT NULL PRIMARY KEY, passenger__fname varchar(200) not null, passenger__lname varchar(200) not null, passenger__age Date , passenger__phone varchar(20) unique, passenger__email varchar(30) not null unique);
```

```
create table station(station__id int NOT NULL PRIMARY KEY, station__name varchar(200) not null);
```

```
create table train(train__id int NOT NULL PRIMARY KEY, train__name varchar(200) not null);
```

```
create table track(track__id int NOT NULL PRIMARY KEY,from__station__id int not null , to__station__id int not null, FOREIGN KEY (from__station__id) REFERENCES station(station__id), FOREIGN KEY (to__station__id) REFERENCES station(station__id));
```

```
alter table track add constraint check(from__station__id != to__station__id);
```

```
create table train__schedule(train__id int NOT NULL, station__id int NOT NULL, sequence__number int not null unique, time__in timestamp, time__out timestamp, FOREIGN KEY (train__id) REFERENCES train(train__id),PRIMARY KEY (train__id, station__id, sequence__number) );
```

```
alter table train__schedule add constraint foreign key (station__id) references station(station__id);
```

```
create table booking(booking__id int NOT NULL PRIMARY KEY, date timestamp not null, coach varchar(250) not null, seat int not null, passenger__id int not null, train__id int not null , track__id int not null, FOREIGN KEY (passenger__id) REFERENCES passenger(passenger__id),FOREIGN KEY (train__id) REFERENCES train(train__id), FOREIGN KEY (track__id) REFERENCES track(track__id));
```

```
alter table booking add UNIQUE (date,coach,seat);
```

Insert data in the tables :

Passenger Table :

```
insert into passenger values (1, 'Dina', 'Alwaneh', '2002-01-14 00:00:00', '0568682986',  
'dina.alwaneh@gmail.com');
```

```
insert into passenger values (2, 'Ahmad', 'Alwaneh', '1993-06-30 00:00:00', '0568682986',  
'ahmad.alwaneh@gmail.com');
```

```
insert into passenger values (3, 'Mohammad', 'Alwaneh', '1992-02-02 00:00:00',  
'0568682286', 'mohamad.alwaneh@gmail.com');
```

Station Table :

```
insert into Station values (1, 'airport');
```

```
insert into Station values (2, 'Jamal Abdunnasser');
```

```
insert into Station values (3, 'Zamalek');
```

Train Table :

```
insert into Train values (1, 'Cairo');
```

```
insert into Train values (2, 'airport');
```

```
insert into Train values (3, 'Zamalek');
```

Track Table :

```
insert into track values (1, 1 , 2);
```

```
insert into track values (2, 1 , 3);
```

```
insert into track values (3, 2 , 3);
```

TrainSchedule Table :

```
insert into train_schedule values (1, 1, 1, '2022-06-08 10:30:00', '2022-06-08 11:30:00');
```

```
insert into train_schedule values (2, 2, 2, '2022-06-08 12:30:00', '2022-06-08 13:30:00');
```

```
insert into train_schedule values (3, 3, 3, '2022-06-08 14:30:00', '2022-06-08 15:30:00');
```

Booking Table :

```
insert into Booking values(1, '2022-06-09 10:30:00', 'Cairo', 100, 1, 1, 1);
```

```
insert into Booking values(2, '2022-06-09 10:30:00', 'Cairo', 101, 1, 1, 1);
```

```
insert into booking values(5, '2022-06-09 10:30:00', 'Cairo', 102, 1, 1, 1);
```

```
insert into booking values(6, '2022-06-09 10:30:00', 'Cairo', 103, 1, 1, 1);
```

Done 