

Adithya M SRN: PES1UG20CS621 Section: K

- 1) create table train(tno integer not null, tname varchar(10) not null unique, arrival varchar(10), destination varchar(10), availability varchar(10), train_type varchar(10), primary key(tno));

```
MariaDB [cs621_RR]> desc train;
+-----+-----+-----+-----+-----+-----+
| Field      | Type      | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| tno        | int(11)   | NO   | PRI | NULL    |       |
| tname      | varchar(10) | NO   | UNI | NULL    |       |
| arrival    | varchar(10) | YES  |     | NULL    |       |
| destination | varchar(10) | YES  |     | NULL    |       |
| availability | varchar(10) | YES  |     | NULL    |       |
| train_type | varchar(10) | YES  |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
6 rows in set (0.081 sec)

MariaDB [cs621_RR]> |
```

- 2) create table compartment(ctype varchar(10), compartment_num integer, capacity integer, availability varchar(10), tno integer, foreign key(tno) references train(tno));

alter table compartment modify compartment_num integer primary key;

alter table compartment

alter column availability set default 'YES';

```
MariaDB [cs621_RR]> desc compartment;
+-----+-----+-----+-----+-----+-----+
| Field      | Type      | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| ctype      | varchar(10) | YES  |     | NULL    |       |
| compartment_num | int(11)   | NO   | PRI | NULL    |       |
| capacity    | int(11)   | YES  |     | NULL    |       |
| availability | varchar(10) | YES  |     | YES     |       |
| tno        | int(11)   | YES  | MUL | NULL    |       |
+-----+-----+-----+-----+-----+-----+
5 rows in set (0.083 sec)
```

- 3) create table route_info(from_station_no integer, from_station_name varchar(10), to_station_no integer, distance integer, tno integer, foreign key(tno) references train(tno), primary key(from_station_no, to_station_no));

```
MariaDB [cs621_RR]> desc route_info;
+-----+-----+-----+-----+-----+-----+
| Field      | Type      | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| from_station_no | int(11)   | NO   | PRI | NULL    |       |
| from_station_name | varchar(10) | YES  |     | NULL    |       |
| to_station_no   | int(11)   | NO   | PRI | NULL    |       |
| distance        | int(11)   | YES  |     | NULL    |       |
| tno            | int(11)   | YES  | MUL | NULL    |       |
+-----+-----+-----+-----+-----+-----+
5 rows in set (0.085 sec)
```

- 4) create table user(user_id integer, user_type varchar(10), fname varchar(10), lname varchar(10), age integer, dob date, pincode integer, street_no integer, primary key(user_id));

```
MariaDB [cs621_RR]> desc user;
```

Field	Type	Null	Key	Default	Extra
user_id	int(11)	NO	PRI	NULL	
user_type	varchar(10)	YES		NULL	
fname	varchar(10)	YES		NULL	
lname	varchar(10)	YES		NULL	
age	int(11)	YES		NULL	
dob	date	YES		NULL	
pincode	int(11)	YES		NULL	
street_no	int(11)	YES		NULL	

8 rows in set (0.083 sec)

- 5) create table user_train(tno integer, user_id integer, date_time_stamp datetime, primary key(date_time_stamp), foreign key(tno) references train(tno), foreign key(user_id) references user(user_id));

```
MariaDB [cs621_RR]> desc user_train;
```

Field	Type	Null	Key	Default	Extra
tno	int(11)	YES	MUL	NULL	
user_id	int(11)	YES	MUL	NULL	
date_time_stamp	datetime	NO	PRI	NULL	

3 rows in set (0.030 sec)

- 6) create table user_phone(user_id integer, phone_no integer, primary key(phone_no), foreign key(user_id) references user(user_id));

```
MariaDB [cs621_RR]> desc user_phone;
```

Field	Type	Null	Key	Default	Extra
user_id	int(11)	YES	MUL	NULL	
phone_no	int(11)	NO	PRI	NULL	

2 rows in set (0.083 sec)

- 7) create table ticket(pnr integer, train_num integer, travel_date date, departure varchar(10), arrival varchar(10), departure_time time, arrival_time time, user_id integer, train_type varchar(10), compartment_type varchar(10), cmpt_no integer, primary key(pnr), foreign key(user_id) references user(user_id));

```
MariaDB [cs621_RR]> desc ticket;
```

Field	Type	Null	Key	Default	Extra
pnr	int(11)	NO	PRI	NULL	
train_num	int(11)	YES		NULL	
travel_date	date	YES		NULL	
departure	varchar(10)	YES		NULL	
arrival	varchar(10)	YES		NULL	
departure_time	time	YES		NULL	
arrival_time	time	YES		NULL	
user_id	int(11)	YES	MUL	NULL	
train_type	varchar(10)	YES		NULL	
compartment_type	varchar(10)	YES		NULL	
cmpt_no	int(11)	YES		NULL	

```
11 rows in set (0.083 sec)
```

- 8) create table payment_info(transaction_id integer, bank varchar(10), card_num integer, price integer, pnr integer, primary key(transaction_id), foreign key(pnr) references ticket(pnr));

```
MariaDB [cs621_RR]> desc payment_info;
```

Field	Type	Null	Key	Default	Extra
transaction_id	int(11)	NO	PRI	NULL	
bank	varchar(10)	YES		NULL	
card_num	int(11)	YES		NULL	
price	int(11)	YES		NULL	
pnr	int(11)	YES	MUL	NULL	

```
5 rows in set (0.056 sec)
```

- 9) create table ticket_passenger(seat_no integer, name varchar(10), age integer, pnr integer, foreign key(pnr) references ticket(pnr));
alter table ticket_passenger add check(age>5);

```
MariaDB [cs621_RR]> desc ticket_passenger;
```

Field	Type	Null	Key	Default	Extra
seat_no	int(11)	YES		NULL	
name	varchar(10)	YES		NULL	
age	int(11)	YES		NULL	
pnr	int(11)	YES	MUL	NULL	

```
4 rows in set (0.011 sec)
```

10) create table fare_table(train_type integer, compartment_type integer, fareperkm integer, primary key(train_type, compartment_type));

```
MariaDB [cs621_RR]> desc fare_table;
```

Field	Type	Null	Key	Default	Extra
train_type	int(11)	NO	PRI	NULL	
compartment_type	int(11)	NO	PRI	NULL	
fareperkm	int(11)	YES		NULL	

3 rows in set (0.085 sec)