DBMS Assignment – Lab Week 3

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PES1UG20CS462

1)

#	Time	Action	Message	Duration / Fetch
1	23:07:55	CREATE DATABASE PES1UG20CS462	1 row(s) affected	0.000 sec
2	23:07:55	USE PES1UG20CS462	0 row(s) affected	0.000 sec
3	23:07:55	CREATE TABLE TRAIN(Train_no INT PRIMARY KEY NOT NULL, Name VARCHAR(50), Arrival TIME, Destination VARCHAR(30), Availability INT, Tr...	0 row(s) affected	0.031 sec
4	23:07:55	CREATE TABLE COMPARTMENT(Type VARCHAR(20), Compartment_no INT PRIMARY KEY, Capacity INT, Availability INT, Train_no INT, FOREIG...	0 row(s) affected	0.047 sec
5	23:07:55	CREATE TABLE ROUTE_INFO(From_Station_No INT, From_Station_Name VARCHAR(30), To_Station_No INT, To_Station_Name VARCHAR(30), Di...	0 row(s) affected	0.047 sec
6	23:07:55	CREATE TABLE USER(User_ID VARCHAR(20) PRIMARY KEY, User_Type VARCHAR(20), FName VARCHAR(50), LName VARCHAR(50), Age INT, ...	0 row(s) affected	0.015 sec
7	23:07:55	CREATE TABLE USER_TRAIN(Train_no INT, User_ID VARCHAR(20), Date_Timestamp DATETIME, PRIMARY KEY(Train_No, User_ID, Date_Times...	0 row(s) affected	0.047 sec
8	23:07:55	CREATE TABLE USER_PHONE(User_ID VARCHAR(20), Phone_No INT, PRIMARY KEY(User_ID, Phone_No), FOREIGN KEY(User_ID) REFERENC...	0 row(s) affected	0.015 sec
9	23:07:55	CREATE TABLE TICKET(PNR VARCHAR(10), Train_no INT, Travel_Date DATE, Departure VARCHAR(20), Arrival VARCHAR(20), Departure_Time TI...	0 row(s) affected	0.047 sec
10	23:07:55	CREATE TABLE PAYMENT_INFO(Transaction_ID VARCHAR(10) PRIMARY KEY, Bank VARCHAR(20), Card_Number VARCHAR(20), Price INT, PN...	0 row(s) affected	0.047 sec
11	23:07:55	CREATE TABLE TICKET_PASSENGER(Seat_No VARCHAR(20) PRIMARY KEY, Name VARCHAR(50), Age INT, PNR VARCHAR(10), FOREIGN KE...	0 row(s) affected	0.047 sec
12	23:07:55	CREATE TABLE FARE_TABLE(Train_Type VARCHAR(20), Compartment_Type VARCHAR(20), Fare_Per_KM INT, PRIMARY KEY(Train_Type, Comp...	0 row(s) affected	0.031 sec

```
mysql> show tables;
+-------------------------+
| Tables_in_pes1ug20cs462 |
+-------------------------+
| compartment             |
| fare_table              |
| payment_info            |
| route_info              |
| ticket                  |
| ticket_passenger        |
| train                   |
| user                    |
| user_phone              |
| user_train              |
+-------------------------+
10 rows in set (0.00 sec)
```

```
mysql> desc train;
+-------------+-------------+------+-----+---------+-------+
| Field       | Type        | Null | Key | Default | Extra |
+-------------+-------------+------+-----+---------+-------+
| Train_no    | int         | NO   | PRI | NULL    |       |
| Name        | varchar(50) | YES  |     | NULL    |       |
| Arrival     | time        | YES  |     | NULL    |       |
| Destination | varchar(30) | YES  |     | NULL    |       |
| Availability| int         | YES  |     | NULL    |       |
| Train_Type  | varchar(20) | YES  |     | NULL    |       |
+-------------+-------------+------+-----+---------+-------+
6 rows in set (0.02 sec)
```

```
mysql> desc compartment;
+----------------+-------------+------+-----+---------+-------+
| Field          | Type        | Null | Key | Default | Extra |
+----------------+-------------+------+-----+---------+-------+
| Type           | varchar(20) | YES  |     | NULL    |       |
| Compartment_no | int         | NO   | PRI | NULL    |       |
| Capacity       | int         | YES  |     | NULL    |       |
| AVAILABILITY   | varchar(20) | YES  |     | NULL    |       |
| Train_no       | int         | YES  | MUL | NULL    |       |
+----------------+-------------+------+-----+---------+-------+
5 rows in set (0.00 sec)
```

```
mysql> desc route_info;
+-------------------+-------------+------+-----+---------+-------+
| Field             | Type        | Null | Key | Default | Extra |
+-------------------+-------------+------+-----+---------+-------+
| From_Station_No   | int         | NO   | PRI | NULL    |       |
| From_Station_Name | varchar(30) | YES  |     | NULL    |       |
| To_Station_No     | int         | NO   | PRI | NULL    |       |
| To_Station_Name   | varchar(30) | YES  |     | NULL    |       |
| Distance          | int         | YES  |     | NULL    |       |
| Train_no          | int         | YES  | MUL | NULL    |       |
+-------------------+-------------+------+-----+---------+-------+
6 rows in set (0.00 sec)
```

```
mysql> desc user;
+-----------+-------------+------+-----+---------+-------+
| Field     | Type        | Null | Key | Default | Extra |
+-----------+-------------+------+-----+---------+-------+
| User_ID   | varchar(20) | NO   | PRI | NULL    |       |
| User_Type | varchar(20) | YES  |     | NULL    |       |
| FName     | varchar(50) | YES  |     | NULL    |       |
| LName     | varchar(50) | YES  |     | NULL    |       |
| Age       | int         | YES  |     | NULL    |       |
| DOB       | date        | YES  |     | NULL    |       |
| Pincode   | int         | YES  |     | NULL    |       |
| Street_No | varchar(20) | YES  |     | NULL    |       |
+-----------+-------------+------+-----+---------+-------+
8 rows in set (0.00 sec)
```

```
mysql> desc user_train;
+----------------+-------------+------+-----+---------+-------+
| Field          | Type        | Null | Key | Default | Extra |
+----------------+-------------+------+-----+---------+-------+
| Train_no       | int         | NO   | PRI | NULL    |       |
| User_ID        | varchar(20) | NO   | PRI | NULL    |       |
| Date_Timestamp | datetime    | NO   | PRI | NULL    |       |
+----------------+-------------+------+-----+---------+-------+
3 rows in set (0.00 sec)
```

```
mysql> desc user_phone;
+----------+-------------+------+-----+---------+-------+
| Field    | Type        | Null | Key | Default | Extra |
+----------+-------------+------+-----+---------+-------+
| User_ID  | varchar(20) | NO   | PRI | NULL    |       |
| Phone_No | int         | NO   | PRI | NULL    |       |
+----------+-------------+------+-----+---------+-------+
2 rows in set (0.00 sec)

mysql> desc ticket;
+------------------+-------------+------+-----+---------+-------+
| Field            | Type        | Null | Key | Default | Extra |
+------------------+-------------+------+-----+---------+-------+
| PNR              | varchar(10) | NO   | PRI | NULL    |       |
| Train_no         | int         | YES  |     | NULL    |       |
| Travel_Date      | date        | YES  |     | NULL    |       |
| Departure        | varchar(20) | YES  |     | NULL    |       |
| Arrival          | varchar(20) | YES  |     | NULL    |       |
| Departure_Time   | time        | YES  |     | NULL    |       |
| Arrival_Time     | time        | YES  |     | NULL    |       |
| User_ID          | varchar(20) | YES  | MUL | NULL    |       |
| Train_Type       | varchar(20) | YES  |     | NULL    |       |
| Compartment_Type | varchar(20) | YES  |     | NULL    |       |
| Compartment_no   | int         | YES  |     | NULL    |       |
+------------------+-------------+------+-----+---------+-------+
11 rows in set (0.00 sec)

mysql> desc payment_info;
+----------------+-------------+------+-----+---------+-------+
| Field          | Type        | Null | Key | Default | Extra |
+----------------+-------------+------+-----+---------+-------+
| Transaction_ID | varchar(10) | NO   | PRI | NULL    |       |
| Bank           | varchar(20) | YES  |     | NULL    |       |
| Card_Number    | varchar(20) | YES  |     | NULL    |       |
| Price          | int         | YES  |     | NULL    |       |
| PNR            | varchar(20) | YES  | MUL | NULL    |       |
+----------------+-------------+------+-----+---------+-------+
5 rows in set (0.00 sec)

mysql> desc ticket_passenger;
+---------+-------------+------+-----+---------+-------+
| Field   | Type        | Null | Key | Default | Extra |
+---------+-------------+------+-----+---------+-------+
| Seat_No | varchar(20) | NO   | PRI | NULL    |       |
| Name    | varchar(50) | YES  |     | NULL    |       |
| Age     | int         | YES  |     | NULL    |       |
| PNR     | varchar(10) | YES  | MUL | NULL    |       |
+---------+-------------+------+-----+---------+-------+
4 rows in set (0.00 sec)
```

```
mysql> desc fare_table;
+------------------+-------------+------+-----+---------+-------+
| Field            | Type        | Null | Key | Default | Extra |
+------------------+-------------+------+-----+---------+-------+
| Train_Type       | varchar(20) | NO   | PRI | NULL    |       |
| Compartment_Type | varchar(20) | NO   | PRI | NULL    |       |
| Fare_Per_KM      | int         | YES  |     | NULL    |       |
+------------------+-------------+------+-----+---------+-------+
3 rows in set (0.00 sec)
```

2)

```
mysql> ALTER TABLE TRAIN MODIFY Name VARCHAR(50) NOT NULL, MODIFY Train_Type VARCHAR(20) NOT NULL;
Query OK, 0 rows affected (0.05 sec)
Records: 0  Duplicates: 0  Warnings: 0

mysql> desc train
    -> ;
+--------------+-------------+------+-----+---------+-------+
| Field        | Type        | Null | Key | Default | Extra |
+--------------+-------------+------+-----+---------+-------+
| Train_no     | int         | NO   | PRI | NULL    |       |
| Name         | varchar(50) | NO   |     | NULL    |       |
| Arrival      | time        | YES  |     | NULL    |       |
| Destination  | varchar(30) | YES  |     | NULL    |       |
| Availability | int         | YES  |     | NULL    |       |
| Train_Type   | varchar(20) | NO   |     | NULL    |       |
+--------------+-------------+------+-----+---------+-------+
6 rows in set (0.00 sec)
```

3)

```
mysql> desc compartment
    -> ;
+----------------+-------------+------+-----+---------+-------+
| Field          | Type        | Null | Key | Default | Extra |
+----------------+-------------+------+-----+---------+-------+
| Type           | varchar(20) | YES  |     | NULL    |       |
| Compartment_no | int         | NO   | PRI | NULL    |       |
| Capacity       | int         | YES  |     | NULL    |       |
| AVAILABILITY   | varchar(20) | YES  |     | Yes     |       |
| Train_no       | int         | YES  | MUL | NULL    |       |
+----------------+-------------+------+-----+---------+-------+
5 rows in set (0.00 sec)
```

4)

```
mysql> ALTER TABLE TRAIN ADD unique(Name);
Query OK, 0 rows affected (0.03 sec)
Records: 0  Duplicates: 0  Warnings: 0

mysql> desc train;
+-------------+-------------+------+-----+---------+-------+
| Field       | Type        | Null | Key | Default | Extra |
+-------------+-------------+------+-----+---------+-------+
| Train_no    | int         | NO   | PRI | NULL    |       |
| Name        | varchar(50) | NO   | UNI | NULL    |       |
| Arrival     | time        | YES  |     | NULL    |       |
| Destination | varchar(30) | YES  |     | NULL    |       |
| Availability| int         | YES  |     | NULL    |       |
| Train_Type  | varchar(20) | NO   |     | NULL    |       |
+-------------+-------------+------+-----+---------+-------+
6 rows in set (0.00 sec)
```

5)

```
mysql> ALTER TABLE TICKET_PASSENGER ADD CHECK(Age > 5);
Query OK, 0 rows affected (0.08 sec)
Records: 0  Duplicates: 0  Warnings: 0
```

6)

```
mysql> RENAME TABLE TICKET TO TICKET_INFO;
Query OK, 0 rows affected (0.04 sec)

mysql> desc ticket_info;
+------------------+-------------+------+-----+---------+-------+
| Field            | Type        | Null | Key | Default | Extra |
+------------------+-------------+------+-----+---------+-------+
| PNR              | varchar(10) | NO   | PRI | NULL    |       |
| Train_no         | int         | YES  |     | NULL    |       |
| Travel_Date      | date        | YES  |     | NULL    |       |
| Departure        | varchar(20) | YES  |     | NULL    |       |
| Arrival          | varchar(20) | YES  |     | NULL    |       |
| Departure_Time   | time        | YES  |     | NULL    |       |
| Arrival_Time     | time        | YES  |     | NULL    |       |
| User_ID          | varchar(20) | YES  | MUL | NULL    |       |
| Train_Type       | varchar(20) | YES  |     | NULL    |       |
| Compartment_Type | varchar(20) | YES  |     | NULL    |       |
| Compartment_no   | int         | YES  |     | NULL    |       |
+------------------+-------------+------+-----+---------+-------+
11 rows in set (0.00 sec)
```

7)

```
mysql> TRUNCATE TABLE FARE_TABLE;
Query OK, 0 rows affected (0.03 sec)
```

```
mysql> DROP TABLE FARE_TABLE;
Query OK, 0 rows affected (0.01 sec)

mysql> SHOW TABLES;
+-------------------------+
| Tables_in_pes1ug20cs462 |
+-------------------------+
| compartment             |
| payment_info            |
| route_info              |
| ticket_info             |
| ticket_passenger        |
| train                   |
| user                    |
| user_phone              |
| user_train              |
+-------------------------+
9 rows in set (0.00 sec)
```