

DBMS

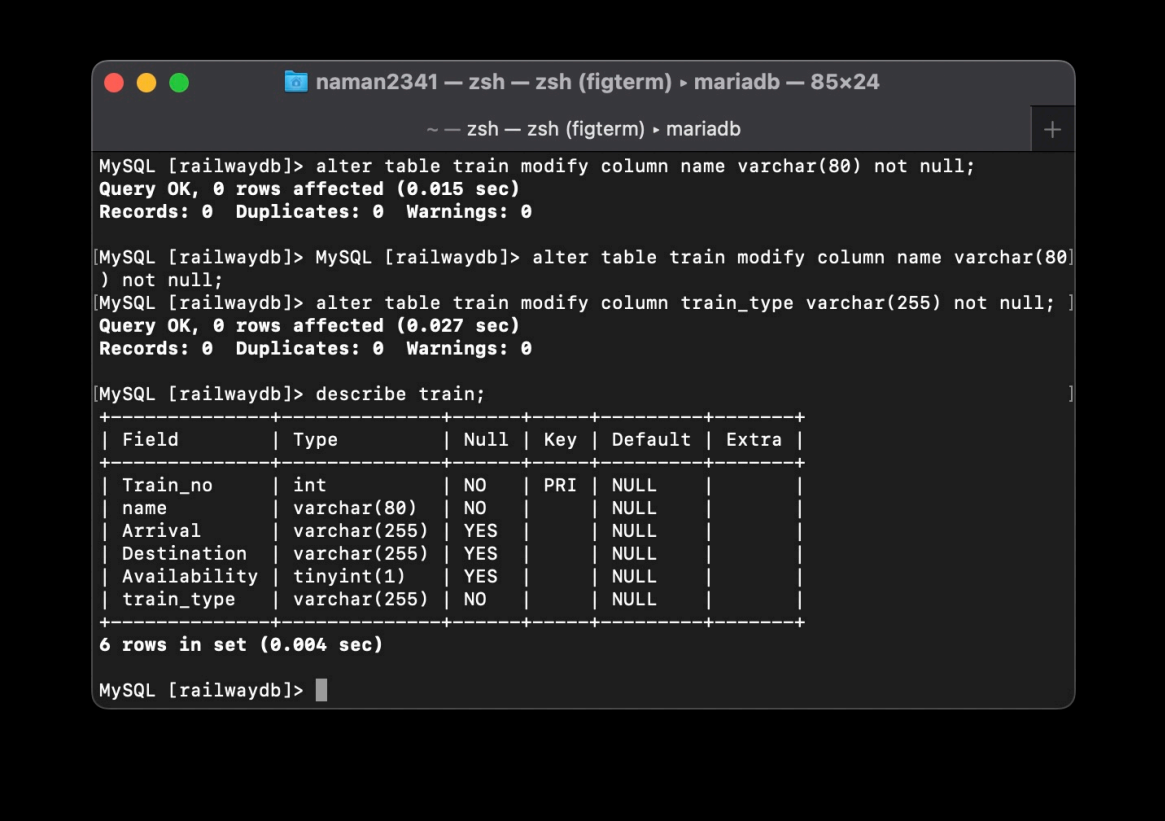
UE20CS301

Lab 3 - DDL Commands

Assignment

Tasks

1. For Train_name, Train_Type in Train table add not null constraints value



```
naman2341 — zsh — zsh (figterm) > mariadb — 85x24
~ — zsh — zsh (figterm) > mariadb

MySQL [railwaydb]> alter table train modify column name varchar(80) not null;
Query OK, 0 rows affected (0.015 sec)
Records: 0 Duplicates: 0 Warnings: 0

MySQL [railwaydb]> MySQL [railwaydb]> alter table train modify column name varchar(80) not null;
MySQL [railwaydb]> alter table train modify column train_type varchar(255) not null;
Query OK, 0 rows affected (0.027 sec)
Records: 0 Duplicates: 0 Warnings: 0

MySQL [railwaydb]> describe train;
+-----+-----+-----+-----+-----+-----+
| Field      | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| Train_no   | int           | NO   | PRI | NULL    |       |
| name       | varchar(80)   | NO   |     | NULL    |       |
| Arrival    | varchar(255)  | YES  |     | NULL    |       |
| Destination| varchar(255)  | YES  |     | NULL    |       |
| Availability| tinyint(1)    | YES  |     | NULL    |       |
| train_type | varchar(255)  | NO   |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
6 rows in set (0.004 sec)

MySQL [railwaydb]>
```

2. Add default constraint for compartment table setting Availability attribute to Yes

```
naman2341 — zsh — zsh (figterm) > mariadb — 85x24
~ — zsh — zsh (figterm) > mariadb

+-----+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| Type | varchar(255) | YES |  | NULL |  |
| Compartment_number | int | NO | PRI | NULL |  |
| Capacity | int | YES |  | NULL |  |
| Availability | int | YES |  | NULL |  |
| Train_no | int | YES | MUL | NULL |  |
+-----+-----+-----+-----+-----+-----+
5 rows in set (0.006 sec)

MySQL [railwaydb]> alter table compartment
-> alter availability set default 1;
Query OK, 0 rows affected (0.011 sec)
Records: 0 Duplicates: 0 Warnings: 0

MySQL [railwaydb]> describe compartment;

+-----+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| Type | varchar(255) | YES |  | NULL |  |
| Compartment_number | int | NO | PRI | NULL |  |
| Capacity | int | YES |  | NULL |  |
| Availability | int | YES |  | 1 |  |
+-----+-----+-----+-----+-----+-----+
```

3. train name should be unique

```
naman2341 — zsh — zsh (figterm) > mariadb — 85x24
~ — zsh — zsh (figterm) > mariadb

+-----+-----+-----+-----+-----+-----+
| name | varchar(80) | NO |  | NULL |  |
| Arrival | varchar(255) | YES |  | NULL |  |
| Destination | varchar(255) | YES |  | NULL |  |
| Availability | tinyint(1) | YES |  | NULL |  |
| train_type | varchar(255) | NO |  | NULL |  |
+-----+-----+-----+-----+-----+-----+
6 rows in set (0.004 sec)

MySQL [railwaydb]> alter table train
-> add unique (Name);
Query OK, 0 rows affected (0.022 sec)
Records: 0 Duplicates: 0 Warnings: 0

MySQL [railwaydb]> describe train;

+-----+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| Train_no | int | NO | PRI | NULL |  |
| name | varchar(80) | NO | UNI | NULL |  |
| Arrival | varchar(255) | YES |  | NULL |  |
| Destination | varchar(255) | YES |  | NULL |  |
| Availability | tinyint(1) | YES |  | NULL |  |
| train_type | varchar(255) | NO |  | NULL |  |
+-----+-----+-----+-----+-----+-----+
```

4. Add check constraints to Ticket to check if the passenger age is above 5

```
naman2341 — zsh — zsh (figterm) > mariadb — 85x24
~ — zsh — zsh (figterm) > mariadb

MySQL [railwaydb]> describe ticket;
+-----+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| PNR   | int  | NO   | PRI | NULL    |       |
| Train_no | int  | YES  |     | NULL    |       |
| Travel_date | date | YES  |     | NULL    |       |
| Departure | varchar(255) | YES  |     | NULL    |       |
| Arrival | varchar(255) | YES  |     | NULL    |       |
| Departure_time | time | YES  |     | NULL    |       |
| Arrival_time | time | YES  |     | NULL    |       |
| User_ID | int  | YES  | MUL | NULL    |       |
| Train_type | varchar(255) | YES  |     | NULL    |       |
| Compartment_type | varchar(255) | YES  |     | NULL    |       |
| Compartment_no | int  | YES  |     | NULL    |       |
| Age    | int  | YES  |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+

12 rows in set (0.005 sec)

MySQL [railwaydb]> alter table ticket
-> add check (Age>5);
Query OK, 0 rows affected (0.039 sec)
Records: 0 Duplicates: 0 Warnings: 0
```

5. Rename any existing table name

```
naman2341 — zsh — zsh (figterm) > mariadb — 85x24
~ — zsh — zsh (figterm) > mariadb

ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use near 'ticket Train_Ticket' at line 1
MySQL [railwaydb]> alter table ticket
-> rename to Train_Ticket;
Query OK, 0 rows affected (0.024 sec)

MySQL [railwaydb]> show tables;
+-----+
| Tables_in_railwaydb |
+-----+
| compartment         |
| FARE_TABLE          |
| PAYMENT_INFO        |
| ROUTE_INFO          |
| TICKET_PASSENGER    |
| train               |
| Train_Ticket        |
| USER_               |
| USER_TRAIN          |
+-----+

9 rows in set (0.004 sec)

MySQL [railwaydb]>
```

6. use Truncate and drop commands

```
naman2341 — zsh — zsh (figterm) › mariadb — 85x24
~ — zsh — zsh (figterm) › mariadb +

MySQL [railwaydb]> insert into test values (44,'banana');
Query OK, 1 row affected (0.004 sec)

MySQL [railwaydb]> select * from test;
+-----+-----+
| data1 | data2 |
+-----+-----+
|    22 | apple |
|    44 | banana |
+-----+-----+
2 rows in set (0.000 sec)

MySQL [railwaydb]> truncate table test;
Query OK, 0 rows affected (0.015 sec)

MySQL [railwaydb]> select * from test;
Empty set (0.003 sec)

MySQL [railwaydb]> drop table test;
Query OK, 0 rows affected (0.010 sec)

MySQL [railwaydb]> select * from test;
ERROR 1146 (42S02): Table 'railwaydb.test' doesn't exist
MySQL [railwaydb]>
```