Ex no: 1 a	Creating and Managing Tables
Date	12-12-2023

AIM:

To execute DDL Commands and get the Desired output

DESCRIPTION:

DDL refers to "Data Definition Language", a subset of SQL statements that change the structure of the database schema in some way, typically by creating, deleting, or modifying schema objects such as databases, tables, and views. Most Impala DDL statements start with the keywords CREATE , DROP , or ALTER .

In this schema, we have four main tables: User, Event, Venue, and Ticket.

User table:

Column	Data Type
UserID	NUMBER(10)
Name	VARCHAR2(255)
Email	VARCHAR2(255)
Password	VARCHAR2(255)
Phone	VARCHAR2(20)

Event table:

Column	Data Type
EventID	NUMBER(10)

Name	VARCHAR2(255)
Date	DATE
Time	VARCHAR
VenueID	NUMBER(10) (Foreign key)
Description	VARCHAR2(500)

Venue table:

Column	Data Type
VenueID	NUMBER(10)
Name	VARCHAR2(255)
Address	VARCHAR2(255)
City	VARCHAR2(255)
State	VARCHAR2(255)
Country	VARCHAR2(255)

Ticket table:

Column	Data Type
TicketID	NUMBER(10)
EventID	NUMBER(10) (Foreign key)
UserID	NUMBER(10)
SeatNumber	VARCHAR2(20)
Price	NUMBER(10, 2)
Status	VARCHAR2(50)

QUERIES AND OUTPUT SCREENSHOT:

1. Create User, Event, Venue, and ticket tables based on the given schema.

```
SQL> CREATE TABLE venue_urk22ai1048 (VENUEID NUMBER(10) PRIMARY KEY,
  2  NAME VARCHAR2(255),
  3  ADDRESS  VARCHAR2(255),
  4  CITY VARCHAR2(255),
  5  STATE VARCHAR2(255),
  6  COUNTRY VARCHAR2(255)
  7  );

Table created.
```

```
SQL> CREATE TABLE event_urk22ai1048 (EVENTID NUMBER(10),
  2  NAME VARCHAR2(255),
  3  EVENT_Date DATE,
  4  TIME VARCHAR2(25),
  5  VENUEID NUMBER(10),
  6  DESCRIPTION VARCHAR2(500),
  7  FOREIGN KEY (VENUEID) REFERENCES venue_urk22ai1048(VENUEID)
  8  );

Table created.
```

```
SQL> CREATE TABLE ticket_urk22ai1048 (TICKETID NUMBER(10),
  2  EVENTID NUMBER(10),
  3  USERID NUMBER(10),
  4  SEATNUMBER VARCHAR2(20),
  5  PRICE NUMBER(10,2),
  6  STATUS VARCHAR2(50),
  7  FOREIGN KEY (EVENTID) REFERENCES venue_urk22ai1048(VENUEID)
  8  );

Table created.
```

```
SQL> CREATE TABLE user_urk22ai1048 (USERID NUMBER(10),
  2  NAME VARCHAR2(255),
  3  EMAIL VARCHAR2(255),
  4  PASSWORD VARCHAR2(255),
  5  PHONE VARCHAR2(255)
  6  );

Table created.
```

2. Describe the tables.

```
SQL> desc ticket_urk22ai1048
 Name                                      Null?    Type
 ----------------------------------------- -------- ----------------------------
 TICKETID                                           NUMBER(10)
 EVENTID                                            NUMBER(10)
 USERID                                             NUMBER(10)
 SEATNUMBER                                         VARCHAR2(20)
 PRICE                                              NUMBER(10,2)
 STATUS                                             VARCHAR2(50)
```

```
SQL> desc venue_urk22ai1048
 Name                                      Null?    Type
 ----------------------------------------- -------- ----------------------------
 VENUEID                                   NOT NULL NUMBER(10)
 NAME                                               VARCHAR2(255)
 ADDRESS                                            VARCHAR2(255)
 CITY                                               VARCHAR2(255)
 STATE                                              VARCHAR2(255)
 COUNTRY                                            VARCHAR2(255)
```

```
SQL> desc event_urk22ai1048
 Name                                      Null?    Type
 ----------------------------------------- -------- ----------------------------
 EVENTID                                            NUMBER(10)
 NAME                                               VARCHAR2(255)
 EVENT_DATE                                         DATE
 TIME                                               VARCHAR2(25)
 VENUEID                                            NUMBER(10)
 DESCRIPTION                                        VARCHAR2(500)
```

```
SQL> DESC user_urk22ai1048
 Name                                      Null?    Type
 ----------------------------------------- -------- ----------------------------
 USERID                                             NUMBER(10)
 NAME                                               VARCHAR2(255)
 EMAIL                                              VARCHAR2(255)
 PASSWORD                                           VARCHAR2(255)
 PHONE                                              VARCHAR2(255)
```

3. Alter the User table to add a new column Age.

```
SQL> ALTER TABLE user_urk22ai1048 ADD Age INT;

Table altered.

SQL> DESC user_urk22ai1048
 Name                                      Null?    Type
 ----------------------------------------- -------- ----------------------------
 USERID                                             NUMBER(10)
 NAME                                               VARCHAR2(255)
 EMAIL                                              VARCHAR2(255)
 PASSWORD                                           VARCHAR2(255)
 PHONE                                              VARCHAR2(255)
 AGE                                                NUMBER(38)
```

4. Drop the newly added column Age.

```
SQL> ALTER TABLE user_urk22ai1048
  2  DROP COLUMN Age;

Table altered.

SQL> desc user_urk22ai1048
 Name                                      Null?    Type
 ----------------------------------------- -------- ----------------------------
 USERID                                             NUMBER(10)
 NAME                                               VARCHAR2(255)
 EMAIL                                              VARCHAR2(255)
 PASSWORD                                           VARCHAR2(255)
 PHONE                                              VARCHAR2(255)
```

5. Rename the Venue table to Location

```
SQL> ALTER TABLE venue_urk22ai1048
  2  RENAME COLUMN ADDRESS to LOCATION;

Table altered.

SQL> desc venue_urk22ai1048
 Name                                      Null?    Type
 ----------------------------------------- -------- ----------------------------
 VENUEID                                   NOT NULL NUMBER(10)
 NAME                                               VARCHAR2(255)
 LOCATION                                           VARCHAR2(255)
 CITY                                               VARCHAR2(255)
 STATE                                              VARCHAR2(255)
 COUNTRY                                            VARCHAR2(255)
```

6. Modify the size of the Event table's Description column to 1000.

```
SQL> ALTER TABLE event_urk22ai1048 modify DESCRIPTION VARCHAR2(1000);

Table altered.

SQL> DESC event_urk22ai1048
 Name                                      Null?    Type
 ----------------------------------------- -------- ----------------------------
 EVENTID                                            NUMBER(10)
 NAME                                               VARCHAR2(255)
 EVENT_DATE                                         DATE
 TIME                                               VARCHAR2(25)
 VENUEID                                            NUMBER(10)
 DESCRIPTION                                        VARCHAR2(1000)
```

7. Drop the SeatNumber column from the Ticket table

```
SQL> ALTER TABLE ticket_urk22ai1048 DROP (SEATNUMBER);

Table altered.

SQL> DESC ticket_urk22ai1048
 Name                                      Null?    Type
 ----------------------------------------- -------- ----------------------------
 TICKETID                                           NUMBER(10)
 EVENTID                                            NUMBER(10)
 USERID                                             NUMBER(10)
 PRICE                                              NUMBER(10,2)
 STATUS                                             VARCHAR2(50)
```

8. Add a unique constraint on the Email column in the User table

```
SQL> alter table user_urk22ai1048 add constraints un1 unique(email);

Table altered.

SQL> desc user_urk22ai1048
 Name                                      Null?    Type
 ----------------------------------------- -------- ----------------------------
 USERID                                             NUMBER(10)
 NAME                                               VARCHAR2(255)
 EMAIL                                              VARCHAR2(255)
 PASSWORD                                           VARCHAR2(255)
 PHONE                                              VARCHAR2(255)
```

9. Rename the UserID column in the User table to ID

```
SQL> alter table user_urk22ai1048 rename column userid to id;

Table altered.

SQL> desc user_urk22ai1048
 Name                                      Null?    Type
 ----------------------------------------- -------- ----------------------------
 ID                                                 NUMBER(10)
 NAME                                               VARCHAR2(255)
 EMAIL                                              VARCHAR2(255)
 PASSWORD                                           VARCHAR2(255)
 PHONE                                              VARCHAR2(255)
```

10. Modify the Ticket table to add a column named "Barcode" with a data type of VARCHAR2(50).

```
SQL> alter table ticket_urk22ai1048 add barcode varchar2(50);

Table altered.

SQL> desc ticket_urk22ai1048
 Name                                      Null?    Type
 ----------------------------------------- -------- ----------------------------
 TICKETID                                           NUMBER(10)
 EVENTID                                            NUMBER(10)
 USERID                                             NUMBER(10)
 PRICE                                              NUMBER(10,2)
 STATUS                                             VARCHAR2(50)
 BARCODE                                            VARCHAR2(50)
```

11.Modify the Name column in the Venue table to increase its maximum length to VARCHAR2(300)

```
SQL> alter table venue_urk22ai1048 modify name varchar2(300);

Table altered.

SQL> desc venue_urk22ai1048
 Name                                      Null?    Type
 ----------------------------------------- -------- ----------------------------
 VENUEID                                   NOT NULL NUMBER(10)
 NAME                                               VARCHAR2(300)
 LOCATION                                           VARCHAR2(255)
 CITY                                               VARCHAR2(255)
 STATE                                              VARCHAR2(255)
 COUNTRY                                            VARCHAR2(255)
```

12.Add a foreign key constraint on the VenueID column in the Event table, referencing the Venue table.

```
SQL> alter table event_urk22ai1048 add constraints fk2 foreign key(eventid) references venue_urk22ai1048(venueid);

Table altered.

SQL> desc event_urk22ai1048
 Name                                      Null?    Type
 ----------------------------------------- -------- ----------------------------
 EVENTID                                            NUMBER(10)
 NAME                                               VARCHAR2(255)
 EVENT_DATE                                         DATE
 TIME                                               VARCHAR2(25)
 VENUEID                                            NUMBER(10)
 DESCRIPTION                                        VARCHAR2(1000)
```

13. Add a CHECK constraint to check whether the UserID is between 101 and 105

```
SQL> alter table user_urk22ai1048 add constraints ck3 check(id between 101 and 105);

Table altered.

SQL> desc user_urk22ai1048
 Name                                      Null?    Type
 ----------------------------------------- -------- ----------------------------
 ID                                                 NUMBER(10)
 NAME                                               VARCHAR2(255)
 EMAIL                                              VARCHAR2(255)
 PASSWORD                                           VARCHAR2(255)
 PHONE                                              VARCHAR2(255)
```

14. Add a unique constraint to Phone column of the User table.

```
SQL> alter table user_urk22ai1048 add constraints un3 unique(phone);

Table altered.

SQL> desc user_urk22ai1048
 Name                                      Null?    Type
 ----------------------------------------- -------- ----------------------------
 ID                                                 NUMBER(10)
 NAME                                               VARCHAR2(255)
 EMAIL                                              VARCHAR2(255)
 PASSWORD                                           VARCHAR2(255)
 PHONE                                              VARCHAR2(255)
```

15. Truncate the user table.

```
SQL> truncate table user_urk22ai1048;

Table truncated.
```

RESULT:

DDL Commands executed Successfully to Create and Alter Tables.