AIM:

Performing Alter and DML commands like Insertion, Deletion, Modifying, and Updating records based on conditions.

Create and the following tables:

album(<u>artist_id: integer, album_id: integer</u>, album_name: string)

artist(<u>artist_id:integer</u>, artist_name:string)

played(<u>artist_id: integer, album_id: integer, track_id: integer, played: timestamp</u>)

track(<u>track_id: integer</u>,track_name: string, <u>artist_id: integer, album_id: integer</u>, time:decimal(5,2))

Alter

a) Change the name of column 'played' in played table into 'last_played'.

b) Reduce size of the column artist_name in the table artist.

c) Add an extra column 'formed:year' into artist table.

d) Drop the newly added column 'formed' from artist.

Insert

e) Insert values into each of the first three tables.[Before insertion, undo all alterations done in the table structure]

   Note: Values to be inserted is attached with this mail as a text file.

Update

f) Change the artist names to uppercase in artist table.

g) Set the 3 most recent played dates and times to the current date and time

h) Set all played dates and times to the current date and time.

i) In the table 'album' there are two album_names 'Substance (Disc 2)' and 'Substance 1987 (Disc 1)'. Add the missing year value to the first name using update command.

Delete

j) Delete from played table, the details of 2 recently played tracks.

k) Delete the details of artist with name 'Miles Davis'.

CREATE

```
create table ARTIST_38(artist_id int primary key,artist_name
varchar(20));
```

Field	Type	Null	Key	Default	Extra
artist_id	int(11)	NO	PRI	NULL	
artist_name	varchar(20)	YES		NULL	

```
create table ALBUM_38(artist_id int,album_id int,album_name
varchar(20),primary key(artist_id,album_id),foreign key(artist_id)
references ARTIST_38(artist_id));
```

Field	Type	Null	Key	Default	Extra
artist_id	int(11)	NO	PRI	0	
album_id	int(11)	NO	PRI	0	
album_name	varchar(20)	YES		NULL	

```
create table TRACK_38(track_id int,track_name varchar(20),artist_id
int,album_id int,time decimal(5,2),primary
key(track_id,artist_id,album_id),foreign key(artist_id,album_id)
references ALBUM_38(artist_id,album_id));
```

Field	Type	Null	Key	Default	Extra
track_id	int(11)	NO	PRI	0	
track_name	varchar(20)	YES		NULL	
artist_id	int(11)	NO	PRI	0	
album_id	int(11)	NO	PRI	0	
time	decimal(5,2)	YES		NULL	

```
create table PLAYED_38(artist_id int,album_id int,track_id
int,played timestamp,primary
key(artist_id,album_id,track_id,played));
```

Field	Type	Null	Key	Default	Extra
artist_id	int(11)	NO	PRI	0	
album_id	int(11)	NO	PRI	0	
track_id	int(11)	NO	PRI	0	
played	timestamp	NO	PRI	CURRENT_TIMESTAMP	on update CURRENT_TIMESTAMP

ALTER

```
alter table PLAYED_38 change  played last_played timestamp;
```

Field	Type	Null	Key	Default	Extra
artist_id	int(11)	NO	PRI	0	
album_id	int(11)	NO	PRI	0	
track_id	int(11)	NO	PRI	0	
last_played	timestamp	NO	PRI	CURRENT_TIMESTAMP	on update CURRENT_TIMESTAMP

```
alter table ARTIST_38 modify artist_name varchar(15);
+------------+------------+------+-----+---------+-------+
| Field      | Type       | Null | Key | Default | Extra |
+------------+------------+------+-----+---------+-------+
| artist_id  | int(11)    | NO   | PRI | NULL    |       |
| artist_name| varchar(15)| YES  |     | NULL    |       |
+------------+------------+------+-----+---------+-------+

alter table ARTIST_38 add formed year;
+------------+------------+------+-----+---------+-------+
| Field      | Type       | Null | Key | Default | Extra |
+------------+------------+------+-----+---------+-------+
| artist_id  | int(11)    | NO   | PRI | NULL    |       |
| artist_name| varchar(15)| YES  |     | NULL    |       |
| formed     | year(4)    | YES  |     | NULL    |       |
+------------+------------+------+-----+---------+-------+

alter table ARTIST_38 drop formed;
```

INSERT

```
insert into ARTIST_38 values(1,"New Order");
insert into ARTIST_38 values(2,"Nick Came & The Bad Seeds");
insert into ARTIST_38 values(3,"Miles Davis")
+-----------+----------------------+
| artist_id | artist_name          |
+-----------+----------------------+
|         1 | New Order            |
|         2 | Nick Came & The Bad  |
|         3 | Miles Davis          |
+-----------+----------------------+
```

```
insert into ALBUM_38 values(1,1,"Substance (Disc 2)");
insert into ALBUM_38 values(1,2,"Power,Corruption & Lies");
insert into ALBUM_38 values(1,3,"Substance 1987 (Disc 1)");
insert into ALBUM_38 values(3,4,"In A Silent Way");
+-----------+----------+----------------------+
| artist_id | album_id | album_name           |
+-----------+----------+----------------------+
|         1 |        1 | Substance (Disc 2)   |
|         1 |        2 | Power,Corruption & L |
|         1 |        3 | Substance 1987 (Disc |
|         3 |        4 | In A Silent Way      |
+-----------+----------+----------------------+
```

```
INSERT INTO PLAYED_38 VALUES(1,3,0,"2006-08-14 10:21:03");
INSERT INTO PLAYED_38 VALUES(1,3,1,"2006-08-14 10:25:22");
INSERT INTO PLAYED_38 VALUES(1,3,2,"2006-08-14 10:30:25");
INSERT INTO PLAYED_38 VALUES(1,3,3,"2006-08-14 10:36:54");
INSERT INTO PLAYED_38 VALUES(1,3,4,"2006-08-14 10:41:43");
```

```
+-----------+-----------+-----------+---------------------+
| artist_id | album_id  | track_id  | played              |
+-----------+-----------+-----------+---------------------+
|         1 |         3 |         0 | 2006-08-14 10:21:03 |
|         1 |         3 |         1 | 2006-08-14 10:25:22 |
|         1 |         3 |         2 | 2006-08-14 10:30:25 |
|         1 |         3 |         3 | 2006-08-14 10:36:54 |
|         1 |         3 |         4 | 2006-08-14 10:41:43 |
+-----------+-----------+-----------+---------------------+
```

<u>UPDATE</u>

```
update ARTIST_38 SET artist_name = UPPER(ARTIST_NAME);
+-----------+----------------------+
| artist_id | artist_name          |
+-----------+----------------------+
|         1 | NEW ORDER            |
|         2 | NICK CAME & THE BAD  |
|         3 | MILES DAVIS          |
+-----------+----------------------+
```

```
UPDATE PLAYED_38 SET played=sysdate() ORDER BY played LIMIT 3;
+-----------+-----------+-----------+---------------------+
| artist_id | album_id  | track_id  | played              |
+-----------+-----------+-----------+---------------------+
|         1 |         3 |         0 | 2017-08-10 10:37:27 |
|         1 |         3 |         1 | 2017-08-10 10:37:27 |
|         1 |         3 |         2 | 2017-08-10 10:37:27 |
|         1 |         3 |         3 | 2006-08-14 10:36:54 |
|         1 |         3 |         4 | 2006-08-14 10:41:43 |
+-----------+-----------+-----------+---------------------+
```

```
UPDATE PLAYED_38 SET played=sysdate();
+-----------+-----------+-----------+---------------------+
| artist_id | album_id  | track_id  | played              |
+-----------+-----------+-----------+---------------------+
|         1 |         3 |         0 | 2017-08-10 10:40:06 |
|         1 |         3 |         1 | 2017-08-10 10:40:06 |
|         1 |         3 |         2 | 2017-08-10 10:40:06 |
|         1 |         3 |         3 | 2017-08-10 10:40:06 |
|         1 |         3 |         4 | 2017-08-10 10:40:06 |
+-----------+-----------+-----------+---------------------+
```

```
UPDATE ALBUM_38 SET album_name = "Substance 1987(Disc 2)" where
album_name="Substance (Disc 2)";
```

<u>DELETE</u>
```
DELETE FROM PLAYED_38 ORDER BY played LIMIT 2;
```

```
+-----------+----------+----------+---------------------+
| artist_id | album_id | track_id | played              |
+-----------+----------+----------+---------------------+
|         1 |        3 |        2 | 2017-08-10 10:40:06 |
|         1 |        3 |        3 | 2017-08-10 10:40:06 |
|         1 |        3 |        4 | 2017-08-10 10:40:06 |
+-----------+----------+----------+---------------------+

DELETE FROM ARTIST_38 WHERE artist_name="Miles Davis";
ERROR 1451 (23000): Cannot delete or update a parent row: a foreign
key constraint fails (`MUSIC_38`.`ALBUM_38`, CONSTRAINT
`ALBUM_38_ibfk_1` FOREIGN KEY (`artist_id`) REFERENCES `ARTIST_38`
(`artist_id`))
```

```
+-----------+----------+----------+---------------------+
| artist_id | album_id | track_id | played              |
+-----------+----------+----------+---------------------+
```