DBMS LAB ASSIGNMENT 3

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19BCS061

CSE

1. Add, Modify and Delete Column using Alter Command.

   - Add

   - Modify

   - Delete

2. Insert 20 Employees Data into all the tables. Use all the 3 methods that I have showcased.

```sql
INSERT INTO T6_MOVIES(ID,NAME,ABOUT,YEAR) /* METHOD 1 */
VALUES(1,'IRON MAN','ACTION',2012);
INSERT INTO T6_MOVIES                     /* METHOD 2 */
VALUES(2,'BATMAN','SCI-FI',2015);
INSERT INTO T6_MOVIES(ID,NAME,ABOUT,YEAR)/*METHOD 3 */
VALUES(3,'INTERSTELLAR','SCI-FI',2012);
INSERT INTO T6_MOVIES(ID,NAME,ABOUT,YEAR)
(SELECT ID,NAME,ABOUT,YEAR FROM T6_MOVIES where ID = 1);
INSERT INTO T6_MOVIES(ID,NAME,ABOUT,YEAR)
VALUES(5,'THE CROODS','ANIMATION',2020);
INSERT INTO T6_MOVIES(ID,NAME,ABOUT,YEAR)
VALUES(6,'TRANSCENDENCE','SCI FI',2014);
INSERT INTO T6_MOVIES(ID,NAME,ABOUT,YEAR)
VALUES(7,'AQUAMAN','ACTION',2020);
INSERT INTO T6_MOVIES(ID,NAME,ABOUT,YEAR)
VALUES(8,'SUPERMAN','ACTION',2016);
INSERT INTO T6_MOVIES
VALUES(9,'LION KING','ANIMATION',2020);
INSERT INTO T6_MOVIES  /* 10 */
VALUES(10,'SIDEMEN','ACTION',2020);
INSERT INTO T6_MOVIES
VALUES(11,'COCO','ANIMATION',2020);
INSERT INTO T6_MOVIES
VALUES(12,'THE SPY','ANIMATION',2020);
INSERT INTO T6_MOVIES(ID,NAME,ABOUT,YEAR)
VALUES(13,'ROBOCOP','ACTION',2016);
INSERT INTO T6_MOVIES(ID,NAME,ABOUT,YEAR)
VALUES(14,'ROBOCOP 2','ACTION',2017);
INSERT INTO T6_MOVIES(ID,NAME,ABOUT,YEAR)
VALUES(15,'ROBOCOP 3','ACTION',2018);
INSERT INTO T6_MOVIES(ID,NAME,ABOUT,YEAR)
VALUES(16,'TENET','SCI FI',2020);
INSERT INTO T6_MOVIES(ID,NAME,ABOUT,YEAR)
VALUES(17,'ARRIVAL','SCI FI',2014);
INSERT INTO T6_MOVIES(ID,NAME,ABOUT,YEAR)
VALUES(18,'INCEPTION','SCI FI',2014);
INSERT INTO T6_MOVIES(ID,NAME,ABOUT,YEAR)
VALUES(19,'EVIL DEAD','HORROR',2014);
INSERT INTO T6_MOVIES(ID,NAME,ABOUT,YEAR)
VALUES(20,'ANNABELLE','HORROR',2018);
```

	ID	NAME	ABOUT	YEAR
1	1	IRON MAN	ACTION	2012
2	2	BATMAN	SCI-FI	2015
3	3	INTERST...	SCI-FI	2012
4	5	THE CR...	ANIM...	2020
5	6	TRANSC...	SCI FI	2014
6	7	AQUAMAN	ACTION	2020
7	8	SUPER...	ACTION	2016
8	9	LION KING	ANIM...	2020
9	10	SIDEMEN	ACTION	2020
10	11	COCO	ANIM...	2020
11	12	THE SPY	ANIM...	2020
12	13	ROBOCOP	ACTION	2016
13	14	ROBOCO...	ACTION	2017
14	15	ROBOCO...	ACTION	2018
15	16	TENET	SCI FI	2020
16	17	ARRIVAL	SCI FI	2014
17	18	INCEPTI...	SCI FI	2014
18	19	EVIL DEAD	HOR...	2014
19	20	ANNABE...	HOR...	2018
20	1...	IRON MAN	ACTION	2012

3. Show Violation of Primary Key, Unique, Not Null and default key constraints through insertion.

Primary Key constraint

```
SQLQuery3.sql - RO...ITH-PC\91790 (63))*  ⊕ X
INSERT INTO T6_MOVIES(ID,NAME,ABOUT,YEAR)
VALUES(1,'XYZZY','ABCDEFG',2012)
```

100 %

Messages

```
Msg 2627, Level 14, State 1, Line 1
Violation of PRIMARY KEY constraint 'PK__T6_MOVIE__3214EC275092E34D'. Cannot insert duplicate key in object 'dbo.T6_MOVIES'. The duplicate key value is (1).
The statement has been terminated.

Completion time: 2021-02-19T15:56:12.1417041+05:30
```

Not NULL constraint

```
SQLQuery3.sql - RO...ITH-PC\91790 (63))* + X
INSERT INTO T6_MOVIES(ID,NAME,ABOUT,YEAR)
VALUES(22,NULL,'ABCDEFG',2014)
```

```
100 %  ▼
Messages
    Msg 515, Level 16, State 2, Line 1
    Cannot insert the value NULL into column 'NAME', table 'T6_MOVIES.dbo.T6_MOVIES'; column does not allow nulls. INSERT fails.
    The statement has been terminated.

    Completion time: 2021-02-19T16:05:34.6243002+05:30
```

Default key constraint

```
SQLQuery3.sql - RO...ITH-PC\91790 (63))* + X
ALTER TABLE T6_MOVIES
ADD CONSTRAINT DEF_YEAR
DEFAULT '2010' FOR YEAR;

INSERT INTO T6_MOVIES
VALUES(24,'ABCDEFG','XYZZYX',2019)
```

```
100 %   ▼
Messages
    (1 row affected)

    Completion time: 2021-02-19T16:08:27.8490675+05:30
```

4. Insert tuples into the table and see how foreign key constraint works if you try to insert into dependent table first.

```
use Movie_Details;
insert into Film_actor

values(1,null,12);
```

Msg 547, Level 16, State 0, Line 2
The INSERT statement conflicted with the FOREIGN KEY constraint "FK__Film_acto__Film__267ABA7A". The conflict occurred in
The statement has been terminated.

Completion time: 2021-02-19T16:27:13.7226343+05:30

5. Show Violation of Foreign Key Constraint when you try to delete from a base table. If you get an error explain why deletion gives an error.

```
DELETE FROM T3_CustomerDetails WHERE
customer_id = 1050;
```

Msg 547, Level 16, State 0, Line 117
The DELETE statement conflicted with the REFERENCE constraint "FK_T3_BookingDetails_T3_CustomerDetails". The conflict occurred in database "T3_Travel", table "dbo.T3_BookingDetails"
The statement has been terminated.

Completion time: 2021-02-18T20:23:12.8435276+05:30

The deletion is giving an error as it violates referential integrity constraint. First, we need to delete the corresponding tuple from the dependent table and then the base table.

6. Try to update a non-existing entity data and check for error.

```
SQLQuery3.sql - RO...ITH-PC\91790 (63))*

UPDATE T6_MOVIES
SET YEAR = 1995
WHERE NAME = 'GHOSTBUSTERS'
```
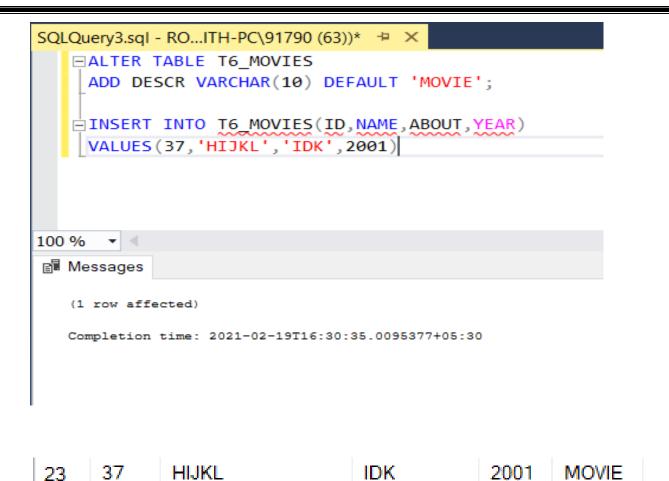
(0 rows affected)

Completion time: 2021-02-19T16:27:35.2928851+05:30

7. Add a column which has a default value

```
SQLQuery3.sql - RO...ITH-PC\91790 (63))*  ⊣ ×
   ⊟ALTER TABLE T6_MOVIES
     ADD DESCR VARCHAR(10) DEFAULT 'MOVIE';

   ⊟INSERT INTO T6_MOVIES(ID,NAME,ABOUT,YEAR)
     VALUES(37,'HIJKL','IDK',2001)
```

```
100 %   ▼ ◀
Messages
    (1 row affected)

    Completion time: 2021-02-19T16:30:35.0095377+05:30
```

23	37	HIJKL	IDK	2001	MOVIE

8. Five simple select queries to retrieve data from your database.

-

```
SQLQuery3.sql - RO...ITH-PC\91790 (63))*  ⊣ ×
   ⊟SELECT NAME FROM T6_MOVIES
     WHERE YEAR = 2016
```
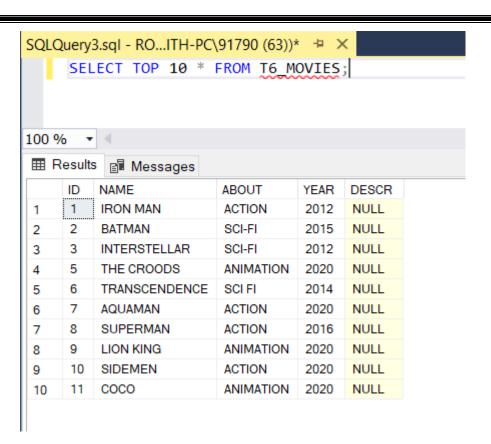
```
100 %   ▼ ◀
Results   Messages
```

	NAME
1	SUPERMAN
2	ROBOCOP
3	SUPERMAN

-

SQLQuery3.sql - RO...ITH-PC\91790 (63))* + ×

```sql
SELECT TOP 10 * FROM T6_MOVIES;
```

100 % ▼

Results | Messages

	ID	NAME	ABOUT	YEAR	DESCR
1	1	IRON MAN	ACTION	2012	NULL
2	2	BATMAN	SCI-FI	2015	NULL
3	3	INTERSTELLAR	SCI-FI	2012	NULL
4	5	THE CROODS	ANIMATION	2020	NULL
5	6	TRANSCENDENCE	SCI FI	2014	NULL
6	7	AQUAMAN	ACTION	2020	NULL
7	8	SUPERMAN	ACTION	2016	NULL
8	9	LION KING	ANIMATION	2020	NULL
9	10	SIDEMEN	ACTION	2020	NULL
10	11	COCO	ANIMATION	2020	NULL

-

SQLQuery3.sql - RO...ITH-PC\91790 (63))* + ×

```sql
SELECT * FROM T6_MOVIES
```

100 % ▼

Results | Messages

	ID	NAME	ABOUT	YEAR	DESCR
1	1	IRON MAN	ACTION	2012	NULL
2	2	BATMAN	SCI-FI	2015	NULL
3	3	INTERSTELLAR	SCI-FI	2012	NULL
4	5	THE CROODS	ANIMATION	2020	NULL
5	6	TRANSCENDENCE	SCI FI	2014	NULL
6	7	AQUAMAN	ACTION	2020	NULL
7	8	SUPERMAN	ACTION	2016	NULL
8	9	LION KING	ANIMATION	2020	NULL
9	10	SIDEMEN	ACTION	2020	NULL
10	11	COCO	ANIMATION	2020	NULL
11	12	THE SPY	ANIMATION	2020	NULL
12	13	ROBOCOP	ACTION	2016	NULL
13	14	ROBOCOP 2	ACTION	2017	NULL
14	15	ROBOCOP 3	ACTION	2018	NULL
15	16	TENET	SCI FI	2020	NULL
16	17	ARRIVAL	SCI FI	2014	NULL
17	18	INCEPTION	SCI FI	2014	NULL
18	19	EVIL DEAD	HORROR	2014	NULL
19	20	ANNABELLE	HORROR	2018	NULL
20	22	IRONMAN	ABCDEFG	1995	NULL
21	24	ABCDEFG	XYZZYX	2019	NULL
22	32	123456	789	2019	NULL
23	37	HIJKL	IDK	2001	MOVIE

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9. Show how Foreign key constraint effects Updating a dependent table when value is not existing and in Base table where the value is referred and you want to update it.