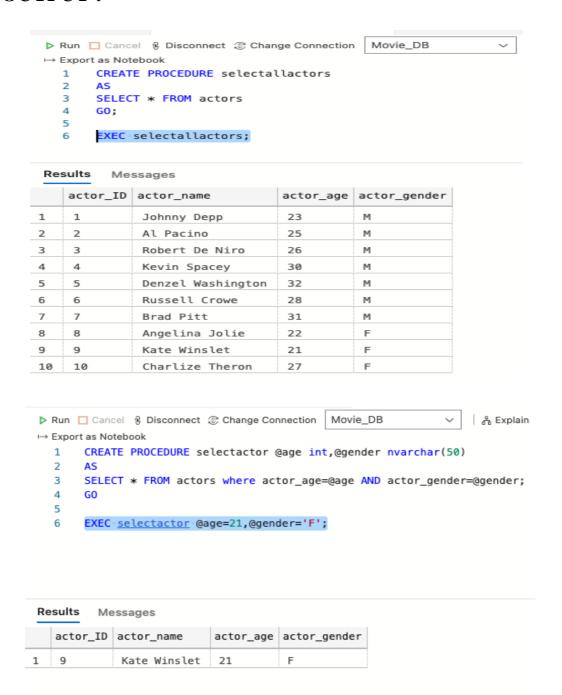# DBMS LAB ASSIGNMENT - 7

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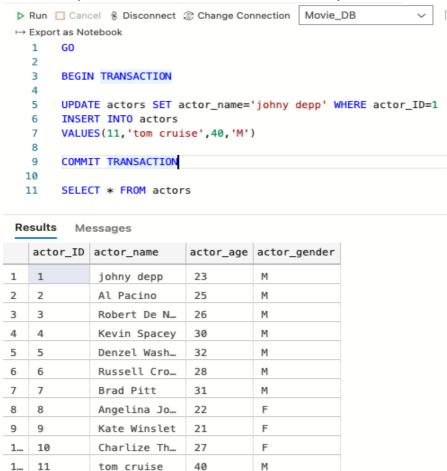
1. Write two stored Procedures relevant to your database.
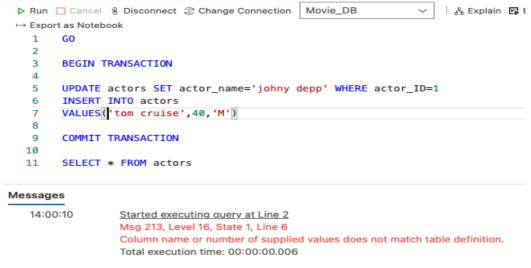
OUTPUT :

▷ Run ☐ Cancel ⅋ Disconnect ⟳ Change Connection Movie_DB ⌄
⤷ Export as Notebook

```
1    CREATE PROCEDURE selectallactors
2    AS
3    SELECT * FROM actors
4    GO;
5
6    EXEC selectallactors;
```

Results   Messages

	actor_ID	actor_name	actor_age	actor_gender
1	1	Johnny Depp	23	M
2	2	Al Pacino	25	M
3	3	Robert De Niro	26	M
4	4	Kevin Spacey	30	M
5	5	Denzel Washington	32	M
6	6	Russell Crowe	28	M
7	7	Brad Pitt	31	M
8	8	Angelina Jolie	22	F
9	9	Kate Winslet	21	F
10	10	Charlize Theron	27	F

▷ Run ☐ Cancel ⅋ Disconnect ⟳ Change Connection Movie_DB ⌄ | ⣿ Explain
⤷ Export as Notebook

```
1    CREATE PROCEDURE selectactor @age int,@gender nvarchar(50)
2    AS
3    SELECT * FROM actors where actor_age=@age AND actor_gender=@gender;
4    GO
5
6    EXEC selectactor @age=21,@gender='F';
```

Results   Messages

	actor_ID	actor_name	actor_age	actor_gender
1	9	Kate Winslet	21	F

2. Write a transaction to illustrate atomicity (related to your database)

OUTPUT (after transaction is successfull) :

```
  Run   Cancel   Disconnect   Change Connection    Movie_DB          |
 Export as Notebook
   1    GO
   2
   3    BEGIN TRANSACTION
   4
   5    UPDATE actors SET actor_name='johny depp' WHERE actor_ID=1
   6    INSERT INTO actors
   7    VALUES(11,'tom cruise',40,'M')
   8
   9    COMMIT TRANSACTION
  10
  11    SELECT * FROM actors
```

Results   Messages

	actor_ID	actor_name	actor_age	actor_gender
1	1	johny depp	23	M
2	2	Al Pacino	25	M
3	3	Robert De N…	26	M
4	4	Kevin Spacey	30	M
5	5	Denzel Wash…	32	M
6	6	Russell Cro…	28	M
7	7	Brad Pitt	31	M
8	8	Angelina Jo…	22	F
9	9	Kate Winslet	21	F
1…	10	Charlize Th…	27	F
1…	11	tom cruise	40	M

This time we will insert wrong information in the Actors table to fail the insertion deliberately.

OUTPUT (after the transaction is failed) :

```
  Run   Cancel   Disconnect   Change Connection    Movie_DB          |   Explain
 Export as Notebook
   1    GO
   2
   3    BEGIN TRANSACTION
   4
   5    UPDATE actors SET actor_name='johny depp' WHERE actor_ID=1
   6    INSERT INTO actors
   7    VALUES('tom cruise',40,'M')
   8
   9    COMMIT TRANSACTION
  10
  11    SELECT * FROM actors
```

Messages

```
14:00:10        Started executing query at Line 2
                Msg 213, Level 16, State 1, Line 6
                Column name or number of supplied values does not match table definition.
                Total execution time: 00:00:00.006
```

```
1    GO
2
3    BEGIN TRANSACTION
4
5    UPDATE actors SET actor_name='johny depp' WHERE actor_ID=1
6    INSERT INTO actors
7    VALUES('tom cruise',40,'M')
8
9    COMMIT TRANSACTION
10
11   SELECT * FROM actors
```

Results Messages

	actor_ID	actor_name	actor_age	actor_gender
1	1	johny depp	23	M
2	2	Al Pacino	25	M
3	3	Robert De Niro	26	M
4	4	Kevin Spacey	30	M
5	5	Denzel Washington	32	M
6	6	Russell Crowe	28	M
7	7	Brad Pitt	31	M
8	8	Angelina Jolie	22	F
9	9	Kate Winslet	21	F
10	10	Charlize Theron	27	F
11	11	tom cruise	40	M

As we could see here when error occurs in the transaction it got rolled back so the table has its previous values and didn't get updated.
It means all the statements inside a transaction should either succeed or fail as a unit. So this is the atomicity property.

3. Write a transaction to illustrate isolation level. It can be on commit or uncommitted (related to your database) ?

OUTPUT :

▷ Run ☐ Cancel ⅋ Disconnect ⟳ Change Connection | Movie_DB ⌄
↦ Export as Notebook

```
1    GO
2
3    BEGIN TRANSACTION
4
5    UPDATE actors SET actor_name='johny depp' WHERE actor_ID=1
```

Messages

14:02:53	Started executing query at Line 2
	(1 row affected)
	Total execution time: 00:00:00.007

▷ Run ☐ Cancel ⅋ Disconnect ⟳ Change Connection | Movie_DB ⌄
↦ Export as Notebook

```
1    GO
2
3    SET TRANSACTION ISOLATION LEVEL READ COMMITTED
4    GO
5    BEGIN TRANSACTION
6    SELECT * FROM actors |
```

Results Messages

	actor_ID	actor_name	actor_age	actor_gender
1	1	johny depp	23	M
2	2	Al Pacino	25	M
3	3	Robert De Niro	26	M
4	4	Kevin Spacey	30	M
5	5	Denzel Washington	32	M
6	6	Russell Crowe	28	M
7	7	Brad Pitt	31	M
8	8	Angelina Jolie	22	F
9	9	Kate Winslet	21	F
10	10	Charlize Theron	27	F
11	11	tom cruise	40	M