

DBMS LAB ASSIGNMENT - 7

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ROLL No. : 19BCS093

Q1) Write two stored Procedures relevant to your database.

OUTPUT :

```
SQLQuery1.sql - lo...FCM281\rukka (65))* X
CREATE PROCEDURE SelectAllActor
AS
SELECT * FROM actors
GO;
EXEC SelectAllActor;
```

82 %

Messages

Commands completed successfully.

Completion time: 2021-04-29T13:59:49.0045054+05:30

82 %

```
SQLQuery1.sql - lo...FCM281\rukka (62))* X
CREATE PROCEDURE selectActor @age int, @gender nvarchar(45)
AS
SELECT * FROM actors WHERE actor_age = @age AND actor_gender = @gender;
GO
EXEC selectActor @age=21, @gender='F';
```

74 %

Results Messages

	actor_ID	actor_name	actor_age	actor_gender
1	9	Kate Winslet	21	F

Q2) Write a transaction to illustrate atomicity (related to your database)

OUTPUT after transaction is successful

```
SQLQuery1.sql - lo...FCM281\rukka (55))* X
GO
BEGIN TRANSACTION
UPDATE actors SET actor_name='Johnny Depp' WHERE actor_ID=1
INSERT INTO actors
VALUES(11,'Tom Cruise',40,'M')
COMMIT TRANSACTION
SELECT * FROM actors
```

74 %

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
11	11	Tom Cruise	40	M

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

OUTPUT after transaction:

```
SQLQuery1.sql - lo...FCM281\rukka (55)) *
USE MovieDB;
GO
BEGIN TRANSACTION
UPDATE actors SET actor_name='Johnny Depp' WHERE actor_ID=1
INSERT INTO actors
VALUES('Roman',40,'M')
COMMIT TRANSACTION
SELECT * FROM actors
```

74 %

Messages

Msg 213, Level 16, State 1, Line 8
Column name or number of supplied values does not match table definition.
Completion time: 2021-04-30T10:11:30.4028878+05:30

```
SQLQuery1.sql - lo...FCM281\rukka (55)) *
USE MovieDB;
GO
BEGIN TRANSACTION
UPDATE actors SET actor_name='Johnny Depp' WHERE actor_ID=1
INSERT INTO actors
VALUES('Roman',40,'M')
COMMIT TRANSACTION
SELECT * FROM actors
```

74 %

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
11	11	Tom Cruise	40	M

Query executed successfully. localhost (15.0 RTM) DESKTOP-5FCM281\rukka ... MovieDB 00:00:00 11 rows

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.

Q3) Write a transaction to illustrate isolation level. It can be on commit or uncommitted (related to your database) ?

SQLQuery1.sql - lo...FCM281\rukka (55)*

```
USE MovieDB;
GO

BEGIN TRANSACTION

UPDATE actors SET actor_name='Johnny Depp' WHERE actor_ID=1
```

74 %

Messages

(1 row affected)

Completion time: 2021-04-00T10:16:51.0989975+05:30

SQLQuery1.sql - lo...FCM281\rukka (55)*

```
USE MovieDB;
GO

SET TRANSACTION ISOLATION LEVEL READ COMMITTED
GO

BEGIN TRANSACTION
SELECT * FROM actors
```

74 %

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
11	11	Tom Cruise	40	M

Query executed successfully.

localhost (15.0 RTM) DESKTOP-5FCM281\rukka ... MovieDB 00:00:00 11 rows