# Government Engineering College Thrissur

## Application Development Lab

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CSE,S5

TCR18CS043

# OUTPUT SCREENSHOTS

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## INSERTION

a) Insert an employee tuple in EMPLOYEE table with Ssn as NULL

```
Database changed
mysql> INSERT INTO EMPLOYEE(Ssn, Fname, Minit, Lname, BDate, Address, Salary, Super_ssn, Sex, Dno) VALUES
    -> (NULL, 'Mark', 'B', 'Range', '1999-09-01', 'Calicut', 100000, 1, 'M', 1);
Query OK, 1 row affected (0.17 sec)

mysql> select * from EMPLOYEE;
+-----+-------+-------+-------+------------+----------+--------+------+-----------+-----+
| Ssn | Fname | Minit | Lname | Bdate      | Address  | Salary | Dno  | Super_ssn | Sex |
+-----+-------+-------+-------+------------+----------+--------+------+-----------+-----+
|   1 | Mark  | B     | Range | 1999-09-01 | Calicut  | 100000 |   1  |         1 | M   |
|   2 | Ram   | K     | Seige | 1999-09-02 | Thrissur | 200000 |   2  |         2 | M   |
|   3 | Clark | N     | Rager | 1999-09-03 | Chicago  | 300000 |   2  |         1 | M   |
|   4 | Mark  | B     | Range | 1999-09-01 | Calicut  | 100000 |   1  |         1 | M   |
+-----+-------+-------+-------+------------+----------+--------+------+-----------+-----+
4 rows in set (0.00 sec)
```

NOTE: Here instead of an error that shows PRIMARY KEY cannot be NULL, the Ssn is automatically incremented because of the AUTO_INCREMENT constraint introduced in the DDL phase.

b) Insert an employee tuple in EMPLOYEE table with an existing Ssn ( already an employee is there with the same Ssn )

```
mysql> INSERT INTO EMPLOYEE(Ssn, Fname, Minit, Lname, BDate, Address, Salary, Super_ssn, Sex, Dno) VALUES
    -> (1, 'Mark', 'B', 'Range', '1999-09-01', 'Calicut', 100000, 1, 'M', 1);
ERROR 1062 (23000): Duplicate entry '1' for key 'EMPLOYEE.PRIMARY'
mysql> 
```

c) Insert an employee tuple in EMPLOYEE table with a non-existing Dno

```
mysql> INSERT INTO EMPLOYEE(Fname, Minit, Lname, BDate, Address, Salary, Super_ssn, Sex, Dno) VA
LUES
    -> ('Sara', 'v', 'John', '1999-09-05', 'Calicut', 100000, 1, 'F', 4);
ERROR 1452 (23000): Cannot add or update a child row: a foreign key constraint fails (`trial`.`E
MPLOYEE`, CONSTRAINT `EMPLOYEE_ibfk_2` FOREIGN KEY (`Dno`) REFERENCES `DEPARTMENT` (`Dnumber`))
mysql> 
```

# DELETION

a) Delete the WORKS_ON tuple with the given Essn and Pno

```
mysql> SELECT * FROM WORKS_ON;
+------+------+-------+
| Essn | Pno  | Hours |
+------+------+-------+
|    1 |    3 |    12 |
|    2 |    2 |     6 |
|    3 |    1 |     7 |
+------+------+-------+
3 rows in set (0.00 sec)

mysql> DELETE FROM WORKS_ON WHERE Essn = 3 AND Pno = 1;
Query OK, 1 row affected (0.55 sec)

mysql> SELECT * FROM WORKS_ON;
+------+------+-------+
| Essn | Pno  | Hours |
+------+------+-------+
|    1 |    3 |    12 |
|    2 |    2 |     6 |
+------+------+-------+
2 rows in set (0.01 sec)
```

b) Delete an EMPLOYEE tuple with a given Ssn

```
mysql> SELECT * FROM EMPLOYEE;
+-----+-------+-------+-------+------------+----------+--------+-----+-----------+-----+
| Ssn | Fname | Minit | Lname | Bdate      | Address  | Salary | Dno | Super_ssn | Sex |
+-----+-------+-------+-------+------------+----------+--------+-----+-----------+-----+
|   1 | Mark  | B     | Range | 1999-09-01 | Calicut  | 100000 |   1 |         1 | M   |
|   2 | Ram   | K     | Seige | 1999-09-02 | Thrissur | 200000 |   2 |         2 | M   |
|   3 | Clark | N     | Rager | 1999-09-03 | Chicago  | 300000 |   2 |         1 | M   |
|   4 | Mark  | B     | Range | 1999-09-01 | Calicut  | 100000 |   1 |         1 | M   |
+-----+-------+-------+-------+------------+----------+--------+-----+-----------+-----+
4 rows in set (0.00 sec)

mysql> DELETE FROM EMPLOYEE WHERE Ssn = 4;
Query OK, 1 row affected (0.16 sec)

mysql> SELECT * FROM EMPLOYEE;
+-----+-------+-------+-------+------------+----------+--------+-----+-----------+-----+
| Ssn | Fname | Minit | Lname | Bdate      | Address  | Salary | Dno | Super_ssn | Sex |
+-----+-------+-------+-------+------------+----------+--------+-----+-----------+-----+
|   1 | Mark  | B     | Range | 1999-09-01 | Calicut  | 100000 |   1 |         1 | M   |
|   2 | Ram   | K     | Seige | 1999-09-02 | Thrissur | 200000 |   2 |         2 | M   |
|   3 | Clark | N     | Rager | 1999-09-03 | Chicago  | 300000 |   2 |         1 | M   |
+-----+-------+-------+-------+------------+----------+--------+-----+-----------+-----+
3 rows in set (0.00 sec)
```

# UPDATION

a) Update the salary of an employee to some new salary, given the Ssn

```
mysql> SELECT * FROM EMPLOYEE WHERE Ssn = 1;
+-----+-------+-------+-------+------------+---------+--------+------+-----------+-----+
| Ssn | Fname | Minit | Lname | Bdate      | Address | Salary | Dno  | Super_ssn | Sex |
+-----+-------+-------+-------+------------+---------+--------+------+-----------+-----+
|   1 | Mark  | B     | Range | 1999-09-01 | Calicut | 100000 |   1  |         1 | M   |
+-----+-------+-------+-------+------------+---------+--------+------+-----------+-----+
1 row in set (0.00 sec)

mysql> UPDATE EMPLOYEE SET Salary = 1500000 WHERE Ssn = 1;
Query OK, 1 row affected (1.19 sec)
Rows matched: 1  Changed: 1  Warnings: 0

mysql> SELECT * FROM EMPLOYEE WHERE Ssn = 1;
+-----+-------+-------+-------+------------+---------+---------+------+-----------+-----+
| Ssn | Fname | Minit | Lname | Bdate      | Address | Salary  | Dno  | Super_ssn | Sex |
+-----+-------+-------+-------+------------+---------+---------+------+-----------+-----+
|   1 | Mark  | B     | Range | 1999-09-01 | Calicut | 1500000 |   1  |         1 | M   |
+-----+-------+-------+-------+------------+---------+---------+------+-----------+-----+
1 row in set (0.00 sec)
```

b) Update Dno of an employee to some non-existing department number

```
mysql> UPDATE EMPLOYEE SET Dno = 5 WHERE Ssn = 1;
ERROR 1452 (23000): Cannot add or update a child row: a foreign key constraint fails (`trial`.`E
MPLOYEE`, CONSTRAINT `EMPLOYEE_ibfk_2` FOREIGN KEY (`Dno`) REFERENCES `DEPARTMENT` (`Dnumber`))
mysql>
```