

WEEK 1:

Session 2:

```
mysql> USE University1_db;
Database changed
mysql> CREATE TABLE Student (
  ->   vtu_no VARCHAR(20) PRIMARY KEY,
  ->   name VARCHAR(50),
  ->   email VARCHAR(50),
  ->   phone VARCHAR(15),
  ->   department VARCHAR(30)
  -> );
Query OK, 0 rows affected (0.06 sec)

mysql> CREATE TABLE Course (
  ->   course_code VARCHAR(10) PRIMARY KEY,
  ->   course_name VARCHAR(50),
  ->   faculty_id VARCHAR(20),
  ->   student_vtu_no VARCHAR(20),
  ->   faculty_email VARCHAR(50),
  ->   FOREIGN KEY (student_vtu_no) REFERENCES Student(vtu_no)
  -> );
Query OK, 0 rows affected (0.07 sec)
```

```
mysql> INSERT INTO Student VALUES
  -> ('VTU101', 'Amit', 'amit@gmail.com', '9876543210', 'CSE'),
  -> ('VTU102', 'Riya', 'riya@gmail.com', '9876543211', 'ISE'),
  -> ('VTU103', 'Rahul', 'rahul@gmail.com', '9876543212', 'CSE'),
  -> ('VTU104', 'Sneha', 'sneha@gmail.com', '9876543213', 'ECE'),
  -> ('VTU105', 'Arjun', 'arjun@gmail.com', '9876543214', 'CSE');
Query OK, 5 rows affected (0.02 sec)
Records: 5 Duplicates: 0 Warnings: 0

mysql> INSERT INTO Course VALUES
  -> ('CS101', 'DBMS', 'FAC01', 'VTU101', 'fac01@vtu.edu'),
  -> ('CS102', 'DSA', 'FAC02', 'VTU102', 'fac02@vtu.edu'),
  -> ('CS103', 'OS', 'FAC01', 'VTU103', 'fac01@vtu.edu'),
  -> ('EC101', 'Signals', 'FAC03', 'VTU104', 'fac03@vtu.edu'),
  -> ('CS104', 'Java', 'FAC04', 'VTU105', 'fac04@vtu.edu');
Query OK, 5 rows affected (0.02 sec)
Records: 5 Duplicates: 0 Warnings: 0
```

SESSION 3:

```
mysql> SELECT * FROM Student;
+-----+-----+-----+-----+-----+
| vtu_no | name  | email          | phone      | department |
+-----+-----+-----+-----+-----+
| VTU101 | Amit  | amit@gmail.com | 9876543210 | CSE        |
| VTU102 | Riya  | riya@gmail.com | 9876543211 | ISE        |
| VTU103 | Rahul | rahul@gmail.com | 9876543212 | CSE        |
| VTU104 | Sneha | sneha@gmail.com | 9876543213 | ECE        |
| VTU105 | Arjun | arjun@gmail.com | 9876543214 | CSE        |
+-----+-----+-----+-----+-----+
5 rows in set (0.00 sec)

mysql> SELECT name, department FROM Student;
+-----+-----+
| name  | department |
+-----+-----+
| Amit  | CSE        |
| Riya  | ISE        |
| Rahul | CSE        |
| Sneha | ECE        |
| Arjun | CSE        |
+-----+-----+
5 rows in set (0.00 sec)
```

```
mysql> SELECT * FROM Student WHERE department = 'CSE';
```

vtu_no	name	email	phone	department
VTU101	Amit	amit@gmail.com	9876543210	CSE
VTU103	Rahul	rahul@gmail.com	9876543212	CSE
VTU105	Arjun	arjun@gmail.com	9876543214	CSE

```
3 rows in set (0.00 sec)
```



```
mysql> SELECT * FROM Student WHERE vtu_no LIKE 'VTU10%';
```

vtu_no	name	email	phone	department
VTU101	Amit	amit@gmail.com	9876543210	CSE
VTU102	Riya	riya@gmail.com	9876543211	ISE
VTU103	Rahul	rahul@gmail.com	9876543212	CSE
VTU104	Sneha	sneha@gmail.com	9876543213	ECE
VTU105	Arjun	arjun@gmail.com	9876543214	CSE

```
5 rows in set (0.00 sec)
```



```
mysql> SELECT * FROM Student;
```

vtu_no	name	email	phone	department
VTU101	Amit	amit@gmail.com	9876543210	CSE
VTU102	Riya	riya@gmail.com	9876543211	ISE
VTU103	Rahul	rahul@gmail.com	9876543212	CSE
VTU104	Sneha	sneha@gmail.com	9876543213	ECE
VTU105	Arjun	arjun@gmail.com	9876543214	CSE

```
5 rows in set (0.00 sec)
```

```
mysql> SELECT * FROM Student ORDER BY vtu_no ASC;
```

vtu_no	name	email	phone	department
VTU101	Amit	amit@gmail.com	9876543210	CSE
VTU102	Riya	riya@gmail.com	9876543211	ISE
VTU103	Rahul	rahul@gmail.com	9876543212	CSE
VTU104	Sneha	sneha@gmail.com	9876543213	ECE
VTU105	Arjun	arjun@gmail.com	9876543214	CSE

```
5 rows in set (0.00 sec)
```



```
mysql> SELECT * FROM Student ORDER BY vtu_no DESC;
```

vtu_no	name	email	phone	department
VTU105	Arjun	arjun@gmail.com	9876543214	CSE
VTU104	Sneha	sneha@gmail.com	9876543213	ECE
VTU103	Rahul	rahul@gmail.com	9876543212	CSE
VTU102	Riya	riya@gmail.com	9876543211	ISE
VTU101	Amit	amit@gmail.com	9876543210	CSE

```
5 rows in set (0.00 sec)
```



```
mysql> SELECT * FROM Student WHERE department = 'CSE';
```

vtu_no	name	email	phone	department
VTU101	Amit	amit@gmail.com	9876543210	CSE
VTU103	Rahul	rahul@gmail.com	9876543212	CSE
VTU105	Arjun	arjun@gmail.com	9876543214	CSE

```
3 rows in set (0.00 sec)
```

SESSION 4:

```
mysql> SELECT * FROM Course;
+-----+-----+-----+-----+-----+
| course_code | course_name | faculty_id | student_vtu_no | faculty_email |
+-----+-----+-----+-----+-----+
| CS101       | DBMS        | FAC01      | VTU101         | fac01@vtu.edu |
| CS102       | DSA         | FAC02      | VTU102         | fac02@vtu.edu |
| CS103       | OS          | FAC01      | VTU103         | fac01@vtu.edu |
| CS104       | Java        | FAC04      | VTU105         | fac04@vtu.edu |
| EC101       | Signals     | FAC03      | VTU104         | fac03@vtu.edu |
+-----+-----+-----+-----+-----+
5 rows in set (0.00 sec)

mysql>
mysql> ^C
mysql> SELECT COUNT(*) AS total_students FROM Student;
+-----+
| total_students |
+-----+
| 5              |
+-----+
1 row in set (0.00 sec)

mysql> SELECT COUNT(*) AS cse_students FROM Student WHERE department = 'CSE';
+-----+
| cse_students |
+-----+
| 3            |
+-----+
1 row in set (0.00 sec)
```

```
mysql> SELECT
->     s.vtu_no,
->     s.name,
->     c.course_name,
->     c.faculty_id,
->     c.faculty_email
-> FROM Student s
-> JOIN Course c
-> ON s.vtu_no = c.student_vtu_no;
+-----+-----+-----+-----+-----+
| vtu_no | name  | course_name | faculty_id | faculty_email |
+-----+-----+-----+-----+-----+
| VTU101 | Amit  | DBMS        | FAC01      | fac01@vtu.edu |
| VTU102 | Riya  | DSA         | FAC02      | fac02@vtu.edu |
| VTU103 | Rahul | OS          | FAC01      | fac01@vtu.edu |
| VTU104 | Sneha | Signals     | FAC03      | fac03@vtu.edu |
| VTU105 | Arjun | Java        | FAC04      | fac04@vtu.edu |
+-----+-----+-----+-----+-----+
5 rows in set (0.00 sec)
```

```
mysql> SELECT course_name, COUNT(student_vtu_no) AS student_count
-> FROM Course
-> GROUP BY course_name;
```

course_name	student_count
DBMS	1
DSA	1
OS	1
Java	1
Signals	1

```
5 rows in set (0.00 sec)
```

```
mysql> CREATE TABLE Faculty_Courses (
->     faculty_id VARCHAR(20),
->     course_name VARCHAR(50)
-> );
Query OK, 0 rows affected (0.03 sec)

mysql> INSERT INTO Faculty_Courses
-> SELECT faculty_id, course_name
-> FROM Course
-> WHERE faculty_id = 'FAC01';
Query OK, 2 rows affected (0.01 sec)
Records: 2  Duplicates: 0  Warnings: 0

mysql> UPDATE Student
-> SET phone = CONCAT('+91', phone)
-> WHERE department = 'CSE'
-> LIMIT 5;
Query OK, 3 rows affected (0.01 sec)
Rows matched: 3  Changed: 3  Warnings: 0
```

SESSION 5:

```
mysql> START TRANSACTION;
Query OK, 0 rows affected (0.00 sec)

mysql>
mysql> INSERT INTO Student VALUES
-> ('VTU106', 'Kiran', 'kiran@gmail.com', '9876543220', 'ISE');
Query OK, 1 row affected (0.00 sec)
```

```
mysql>
mysql> COMMIT;
Query OK, 0 rows affected (0.01 sec)

mysql> START TRANSACTION;
Query OK, 0 rows affected (0.00 sec)

mysql>
mysql> SAVEPOINT sp1;
Query OK, 0 rows affected (0.00 sec)

mysql>
mysql> UPDATE Student
      -> SET phone = '0000000000'
      -> WHERE vtu_no = 'VTU101';
Query OK, 1 row affected (0.00 sec)
Rows matched: 1  Changed: 1  Warnings: 0

mysql>
mysql> ROLLBACK TO sp1;
Query OK, 0 rows affected (0.01 sec)

mysql>
mysql> COMMIT;
Query OK, 0 rows affected (0.00 sec)
```

