Practical No:2

mysql> use school;
Database changed
mysql> CREATE TABLE pupils (id INT, full_name VARCHAR(50), age INT, grade VARCHAR(20)); CREATE TABLE classes (class_id INT, subject VARCHAR(50), teacher VARCHAR(50)); INSERT INTO pupils (id, full_name, age, grade) VALUES (1, 'Avinash', 20, 'TY'), (2, 'Rohit', 20, 'TY'), (3, 'Prasad', 20, 'TY'), (4, 'Atharava', 20, 'TY'); INSERT INTO classes (class_id, subject, teacher) VALUES (1, 'Math', 'Mr.Shinde'), (2, 'Science', 'Ms. Gupta'), (3, 'History', 'Mr.Patil');

mysql> SELECT pupils.full_name, classes.subject, classes.teacher FROM pupils INNER JOIN classes ON pupils.id = classes.class_id;

```
+-----------+---------+------------+
| full_name | subject | teacher    |
+-----------+---------+------------+
| Avinash   | Math    | Mr.Shinde  |
| Rohit     | Science | Ms. Gupta  |
| Prasad    | History | Mr.Patil   |
+-----------+---------+------------+
```
3 rows in set (0.00 sec)

mysql> SELECT pupils.full_name, classes.subject, classes.teacher FROM pupils LEFT JOIN classes ON pupils.id = classes.class_id;

```
+-----------+---------+------------+
| full_name | subject | teacher    |
+-----------+---------+------------+
| Avinash   | Math    | Mr.Shinde  |
| Rohit     | Science | Ms. Gupta  |
| Prasad    | History | Mr.Patil   |
| Atharava  | NULL    | NULL       |
+-----------+---------+------------+
```
4 rows in set (0.00 sec)

mysql> SELECT pupils.full_name, classes.subject, classes.teacher FROM pupils RIGHT JOIN classes ON pupils.id = classes.class_id;

```
+-----------+---------+------------+
| full_name | subject | teacher    |
+-----------+---------+------------+
| Avinash   | Math    | Mr.Shinde  |
| Rohit     | Science | Ms. Gupta  |
| Prasad    | History | Mr. Patil  |
+-----------+---------+------------+
```
3 rows in set (0.00 sec)

mysql> SELECT pupils.full_name, classes.subject, classes.teacher FROM pupils FULL OUTER JOIN classes ON pupils.id = classes.class_id;

mysql> SELECT pupils.full_name, classes.subject, classes.teacher FROM pupils LEFT JOIN classes ON pupils.id = classes.class_id UNION SELECT pupils.full_name, classes.subject, classes.teacher FROM pupils RIGHT JOIN classes ON pupils.id = classes.class_id;

```
+-----------+---------+------------+
| full_name | subject | teacher    |
+-----------+---------+------------+
| Ali       | Math    | Mr. Sharma |
| Rohit     | Science | Ms. Gupta  |
| Prasad    | History | Mr.Patil   |
| Atharava  | NULL    | NULL       |
+-----------+---------+------------+
4 rows in set (0.00 sec)
```

mysql> SELECT pupils.full_name, classes.subject, classes.teacher FROM pupils CROSS JOIN classes;

```
+-----------+---------+------------+
| full_name | subject | teacher    |
+-----------+---------+------------+
| Avinash   | History | Mr.Patil   |
| Avinash   | Science | Ms. Gupta  |
| Avinash   | Math    | Mr.Shinde  |
| Rohit     | History | Mr.Patil   |
| Rohit     | Science | Ms. Gupta  |
| Rohit     | Math    | Mr.Shinde  |
| Prasad    | History | Mr.Patil   |
| Prasad    | Science | Ms. Gupta  |
| Prasad    | Math    | Mr.Shinde  |
| Atharava  | History | Mr.Patil   |
| Atharava  | Science | Ms. Gupta  |
| Atharava  | Math    | Mr.Shinde  |
+-----------+---------+------------+
12 rows in set (0.00 sec)
```

mysql> SELECT full_name FROM pupils WHERE id = (SELECT MAX(id) FROM pupils);

```
+-----------+
| full_name |
+-----------+
| Atharava  |
+-----------+
1 row in set (0.00 sec)
```

mysql> SELECT full_name FROM pupils WHERE grade = (SELECT grade FROM pupils
WHERE full_name = 'Avinash');

```
+-----------+
| full_name |
+-----------+
| Avinash   |
| Rohit     |
| Prasad    |
| Atharava  |
+-----------+
```
4 rows in set (0.00 sec)

mysql> CREATE VIEW view_all_pupils AS SELECT * FROM pupils; SELECT * FROM
view_all_pupils;

```
+------+-----------+------+-------+
| id   | full_name | age  | grade |
+------+-----------+------+-------+
|    1 | Avinash   |   20 | TY    |
|    2 | Rohit     |   20 | TY    |
|    3 | Prasad    |   20 | TY    |
|    4 | Atharava  |   20 | TY    |
+------+-----------+------+-------+
```
4 rows in set (0.00 sec)

mysql> CREATE VIEW view_pupil_details AS SELECT full_name, grade FROM pupils;
SELECT * FROM view_pupil_details;

```
+-----------+-------+
| full_name | grade |
+-----------+-------+
| Avinash   | TY    |
| Rohit     | TY    |
| Prasad    | TY    |
| Atharava  | TY    |
+-----------+-------+
```
4 rows in set (0.00 sec)

mysql> SELECT full_name, age FROM pupils WHERE age > (SELECT AVG(age) FROM
pupils);
Empty set (0.00 sec)