20 Important SQL Queries

1. Fetch FIRST_NAME in upper case with alias STUDENT_NAME

```
SELECT UPPER(FIRST_NAME) AS STUDENT_NAME FROM Student;
```

2. Fetch unique values of MAJOR subjects

```
SELECT DISTINCT MAJOR FROM Student;
```

3. Print first 3 characters of FIRST_NAME

```
SELECT SUBSTRING(FIRST_NAME, 1, 3) FROM Student;
```

4. Find position of alphabet 'a' in 'Shivansh'

```
SELECT INSTR('shivansh', 'a');
```

5. Fetch unique MAJOR subjects and print their length

```
SELECT DISTINCT MAJOR, LENGTH(MAJOR) FROM Student;
```

6. Replace 'a' with 'A' in FIRST_NAME

```
SELECT REPLACE(FIRST_NAME, 'a', 'A') FROM Student;
```

7. Print FIRST_NAME and LAST_NAME as COMPLETE_NAME

```
SELECT CONCAT(FIRST_NAME, ' ', LAST_NAME) AS COMPLETE_NAME FROM Student;
```

8. Print all details ordered by FIRST_NAME ASC and MAJOR DESC

```
SELECT * FROM Student ORDER BY FIRST_NAME ASC, MAJOR DESC;
```

9. Print details of students with FIRST_NAME as 'Prem' or 'Shivansh'

```
SELECT * FROM Student WHERE FIRST_NAME IN ('Prem', 'Shivansh');
```

10. Print students whose FIRST_NAME ends with 'a'

```
SELECT * FROM Student WHERE FIRST_NAME LIKE '%a';
```

11. Print students whose FIRST_NAME starts with 'a'

```
SELECT * FROM Student WHERE FIRST_NAME LIKE 'a%';
```

12. Students whose FIRST_NAME ends with 'a' and has 5 characters

```
SELECT * FROM Student WHERE FIRST_NAME LIKE '_____a';
```

13. Students with GPA between 9.00 and 9.99

```
SELECT * FROM Student WHERE GPA BETWEEN 9.00 AND 9.99;
```

14. Count of students having MAJOR 'Computer Science'

```
SELECT MAJOR, COUNT(*) AS TOTAL_COUNT FROM Student WHERE MAJOR = 'Computer Science';
```

15. Full names of students with GPA between 8.5 and 9.5

```
SELECT CONCAT(FIRST_NAME, ' ', LAST_NAME) AS FULL_NAME FROM Student WHERE GPA BETWEEN 8
```

16. Number of students for each MAJOR in descending order

```
SELECT MAJOR, COUNT(MAJOR) FROM Student GROUP BY MAJOR ORDER BY COUNT(MAJOR) DESC;
```

17. Show only odd rows

```
SELECT * FROM Student WHERE student_id % 2 != 0;
```

18. Show only even rows

```
SELECT * FROM Student WHERE student_id % 2 = 0;
```

19. Show top 5 students by GPA

```
SELECT * FROM Student ORDER BY GPA DESC LIMIT 5;
```

20. Show top 3 students with highest GPA

```
SELECT * FROM Student ORDER BY GPA DESC LIMIT 3;
```

■ Student Table Structure

```
CREATE TABLE Student (
    student_id INT PRIMARY KEY,
    FIRST_NAME VARCHAR(50),
    LAST_NAME VARCHAR(50),
    MAJOR VARCHAR(50),
    GPA DECIMAL(3,2),
    CITY VARCHAR(50)
);
```

■ Insert Sample Data

```
INSERT INTO Student (student_id, FIRST_NAME, LAST_NAME, MAJOR, GPA, CITY) VALUES
(1,  'Suhas',     'Patil',      'Computer Science', 9.10, 'Pune'),
(2,  'Prem',      'Sharma',     'Electronics',      8.50, 'Mumbai'),
(3,  'Shivansh',  'Verma',      'Mechanical',       7.80, 'Delhi'),
(4,  'Amit',      'Kumar',      'Computer Science', 9.80, 'Pune'),
(5,  'Priya',     'Rao',        'Information Tech', 9.20, 'Nagpur'),
(6,  'Ankita',    'Joshi',      'Civil',            8.90, 'Pune'),
(7,  'Rohan',     'Deshmukh',   'Mechanical',       9.50, 'Mumbai'),
(8,  'Sneha',     'Kulkarni',   'Computer Science', 8.30, 'Pune'),
(9,  'Meera',     'Nair',       'Information Tech', 9.00, 'Kochi'),
(10, 'Gaurav',    'Singh',      'Civil',            7.60, 'Delhi'),
(11, 'Neha',      'Mehta',      'Computer Science', 9.40, 'Surat'),
(12, 'Ravi',      'Yadav',      'Mechanical',       8.00, 'Bhopal'),
(13, 'Isha',      'Pawar',      'Electronics',      9.60, 'Pune'),
(14, 'Kiran',     'Jadhav',     'Information Tech', 8.75, 'Mumbai'),
(15, 'Pooja',     'Patel',      'Civil',            9.15, 'Ahmedabad');
```