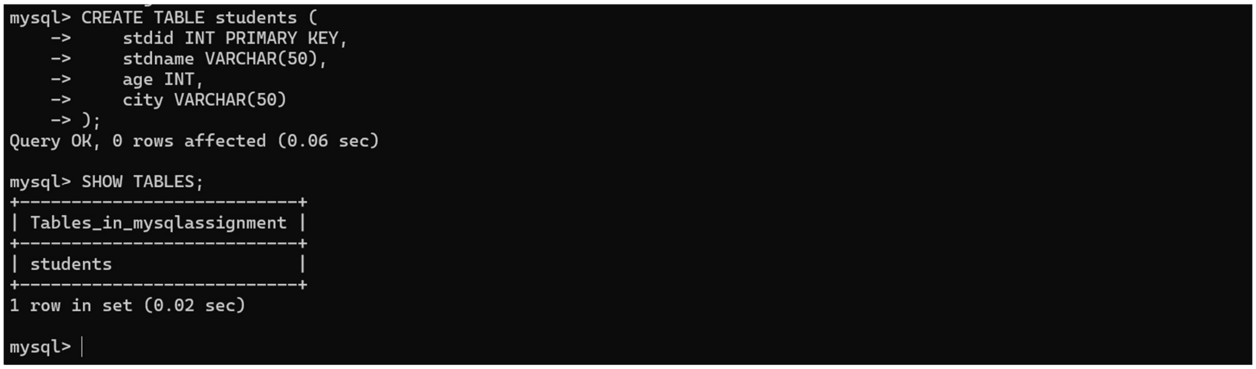
LAB QUESTIONS – MySQL 21st November 2025

PART 1 — SQL Queries

Q1. Create a table named students with fields:

- stdid INT PRIMARY KEY
- stdname VARCHAR(50)
- age INT
- city VARCHAR(50)



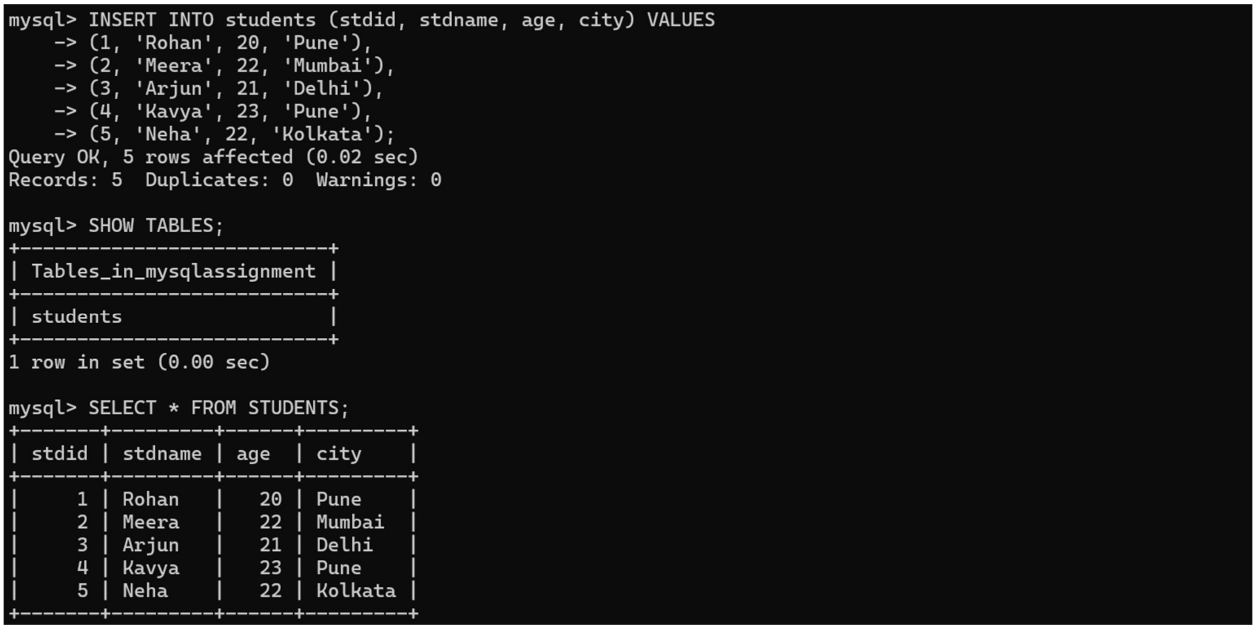
```
mysql> CREATE TABLE students (
    ->     stdid INT PRIMARY KEY,
    ->     stdname VARCHAR(50),
    ->     age INT,
    ->     city VARCHAR(50)
    -> );
Query OK, 0 rows affected (0.06 sec)

mysql> SHOW TABLES;
+---------------------------+
| Tables_in_mysqlassignment |
+---------------------------+
| students                  |
+---------------------------+
1 row in set (0.02 sec)

mysql> |
```

Q2. Insert the following records into the students table:

stdid	stdname	age	city
1	Rohan	20	Pune
2	Meera	22	Mumbai
3	Arjun	21	Delhi
4	Kavya	23	Pune
5	Neha	22	Kolkata

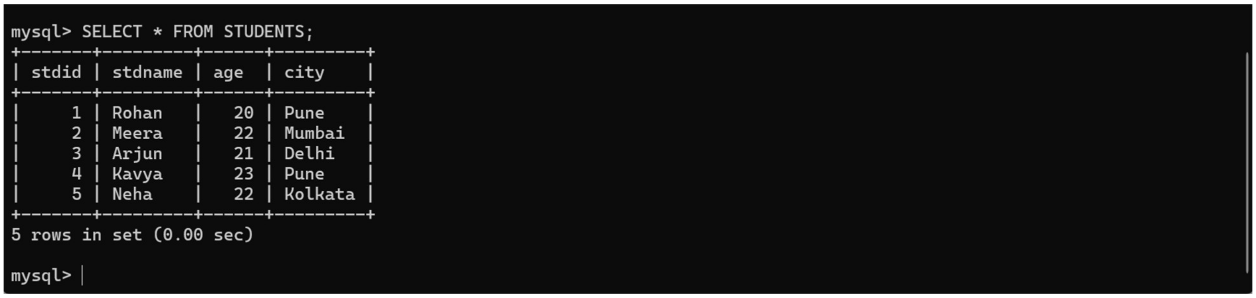


```
mysql> INSERT INTO students (stdid, stdname, age, city) VALUES
    -> (1, 'Rohan', 20, 'Pune'),
    -> (2, 'Meera', 22, 'Mumbai'),
    -> (3, 'Arjun', 21, 'Delhi'),
    -> (4, 'Kavya', 23, 'Pune'),
    -> (5, 'Neha', 22, 'Kolkata');
Query OK, 5 rows affected (0.02 sec)
Records: 5  Duplicates: 0  Warnings: 0

mysql> SHOW TABLES;
+---------------------------+
| Tables_in_mysqlassignment |
+---------------------------+
| students                  |
+---------------------------+
1 row in set (0.00 sec)

mysql> SELECT * FROM STUDENTS;
+-------+---------+------+---------+
| stdid | stdname | age  | city    |
+-------+---------+------+---------+
|     1 | Rohan   |   20 | Pune    |
|     2 | Meera   |   22 | Mumbai  |
|     3 | Arjun   |   21 | Delhi   |
|     4 | Kavya   |   23 | Pune    |
|     5 | Neha    |   22 | Kolkata |
+-------+---------+------+---------+
```

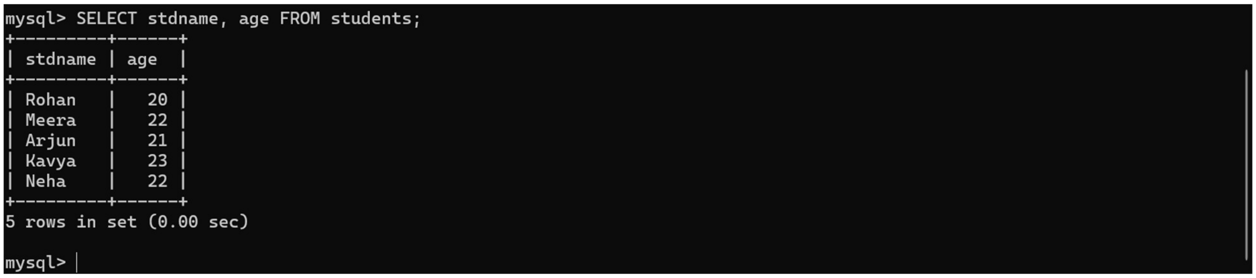
Q3. Display all student records.



```
mysql> SELECT * FROM STUDENTS;
+-------+---------+------+---------+
| stdid | stdname | age  | city    |
+-------+---------+------+---------+
|     1 | Rohan   |   20 | Pune    |
|     2 | Meera   |   22 | Mumbai  |
|     3 | Arjun   |   21 | Delhi   |
|     4 | Kavya   |   23 | Pune    |
|     5 | Neha    |   22 | Kolkata |
+-------+---------+------+---------+
5 rows in set (0.00 sec)

mysql>
```

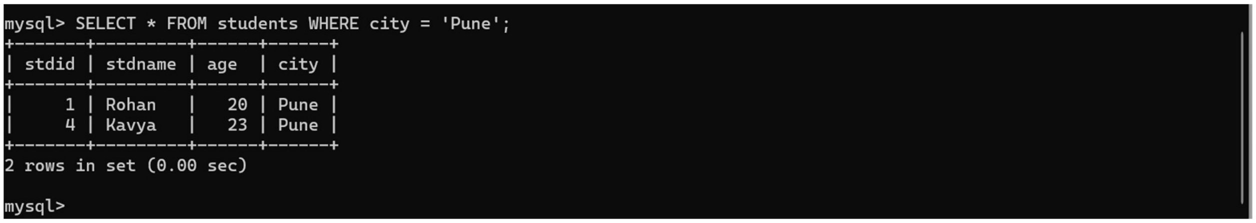
Q4. Display only the name and age of all students.



```
mysql> SELECT stdname, age FROM students;
+---------+------+
| stdname | age  |
+---------+------+
| Rohan   |   20 |
| Meera   |   22 |
| Arjun   |   21 |
| Kavya   |   23 |
| Neha    |   22 |
+---------+------+
5 rows in set (0.00 sec)

mysql>
```

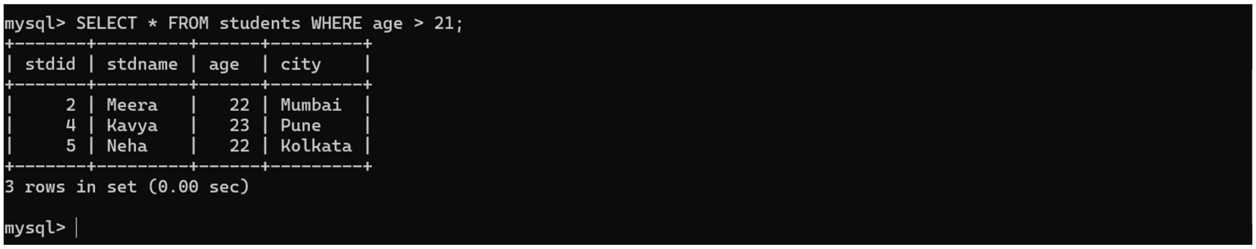
Q5. Display students who are from Pune.



```
mysql> SELECT * FROM students WHERE city = 'Pune';
+-------+---------+------+------+
| stdid | stdname | age  | city |
+-------+---------+------+------+
|     1 | Rohan   |   20 | Pune |
|     4 | Kavya   |   23 | Pune |
+-------+---------+------+------+
2 rows in set (0.00 sec)

mysql>
```

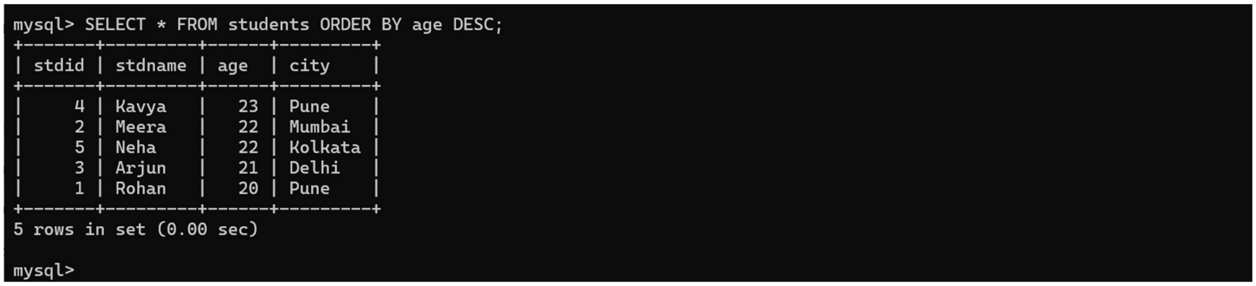
Q6. Display students whose age is greater than 21.



```
mysql> SELECT * FROM students WHERE age > 21;
+-------+---------+------+---------+
| stdid | stdname | age  | city    |
+-------+---------+------+---------+
|     2 | Meera   |   22 | Mumbai  |
|     4 | Kavya   |   23 | Pune    |
|     5 | Neha    |   22 | Kolkata |
+-------+---------+------+---------+
3 rows in set (0.00 sec)

mysql>
```

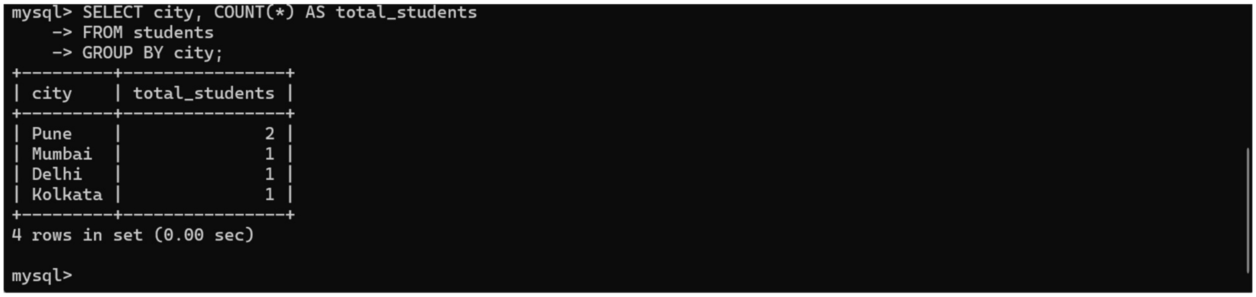
Q7. Display students in descending order of age.



```
mysql> SELECT * FROM students ORDER BY age DESC;
+-------+---------+------+---------+
| stdid | stdname | age  | city    |
+-------+---------+------+---------+
|     4 | Kavya   |   23 | Pune    |
|     2 | Meera   |   22 | Mumbai  |
|     5 | Neha    |   22 | Kolkata |
|     3 | Arjun   |   21 | Delhi   |
|     1 | Rohan   |   20 | Pune    |
+-------+---------+------+---------+
5 rows in set (0.00 sec)

mysql>
```

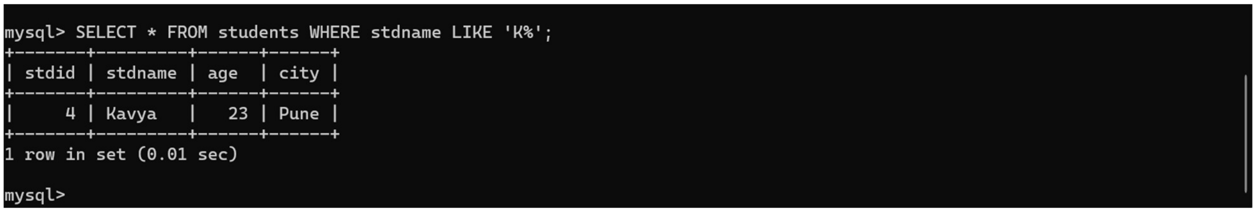
Q8. Count how many students belong to each city. (Use GROUP BY) .



```
mysql> SELECT city, COUNT(*) AS total_students
    -> FROM students
    -> GROUP BY city;
+---------+----------------+
| city    | total_students |
+---------+----------------+
| Pune    |              2 |
| Mumbai  |              1 |
| Delhi   |              1 |
| Kolkata |              1 |
+---------+----------------+
4 rows in set (0.00 sec)

mysql>
```

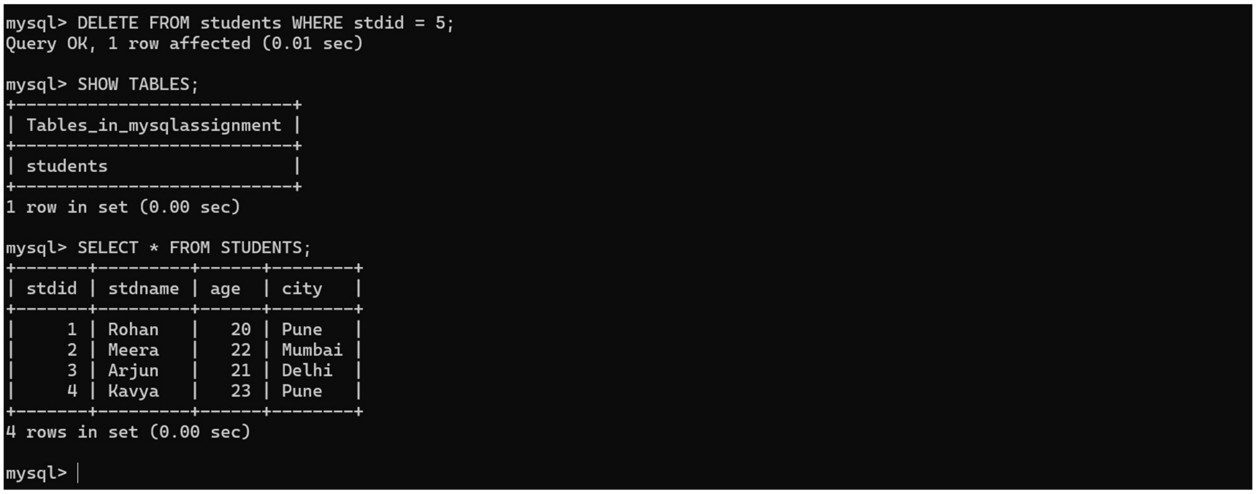
Q9. Display students whose name starts with ‘K’. (Use LIKE)



```
mysql> SELECT * FROM students WHERE stdname LIKE 'K%';
+-------+---------+------+------+
| stdid | stdname | age  | city |
+-------+---------+------+------+
|     4 | Kavya   |   23 | Pune |
+-------+---------+------+------+
1 row in set (0.01 sec)

mysql>
```

Q10. Delete student whose stdid = 5.



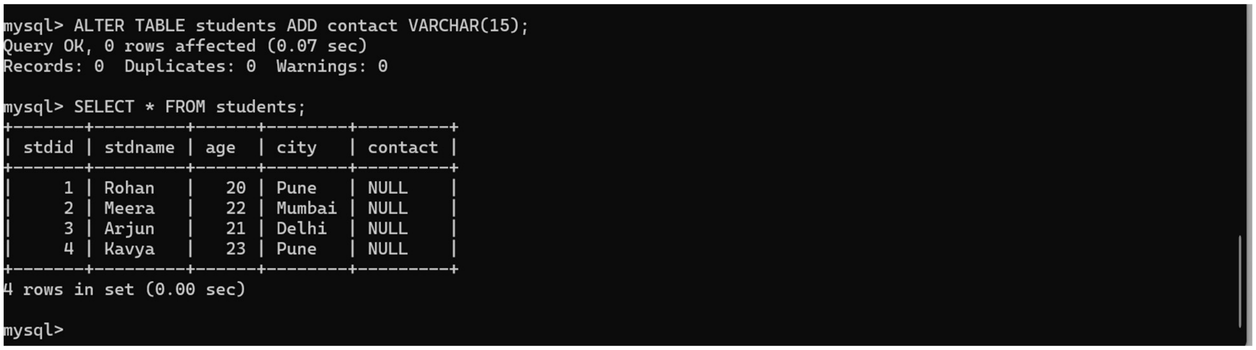
```
mysql> DELETE FROM students WHERE stdid = 5;
Query OK, 1 row affected (0.01 sec)

mysql> SHOW TABLES;
+---------------------------+
| Tables_in_mysqlassignment |
+---------------------------+
| students                  |
+---------------------------+
1 row in set (0.00 sec)

mysql> SELECT * FROM STUDENTS;
+-------+---------+------+--------+
| stdid | stdname | age  | city   |
+-------+---------+------+--------+
|     1 | Rohan   |   20 | Pune   |
|     2 | Meera   |   22 | Mumbai |
|     3 | Arjun   |   21 | Delhi  |
|     4 | Kavya   |   23 | Pune   |
+-------+---------+------+--------+
4 rows in set (0.00 sec)

mysql>
```

Q11. Add a new column contact VARCHAR(15) to the students table.

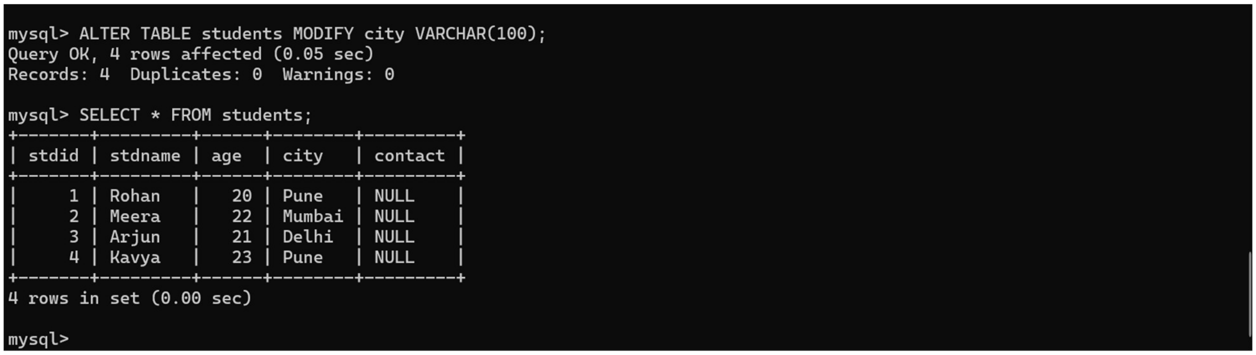


```
mysql> ALTER TABLE students ADD contact VARCHAR(15);
Query OK, 0 rows affected (0.07 sec)
Records: 0  Duplicates: 0  Warnings: 0

mysql> SELECT * FROM students;
+-------+---------+------+--------+---------+
| stdid | stdname | age  | city   | contact |
+-------+---------+------+--------+---------+
|     1 | Rohan   |   20 | Pune   | NULL    |
|     2 | Meera   |   22 | Mumbai | NULL    |
|     3 | Arjun   |   21 | Delhi  | NULL    |
|     4 | Kavya   |   23 | Pune   | NULL    |
+-------+---------+------+--------+---------+
4 rows in set (0.00 sec)

mysql>
```

Q12. Modify the data type of city column to VARCHAR(100).

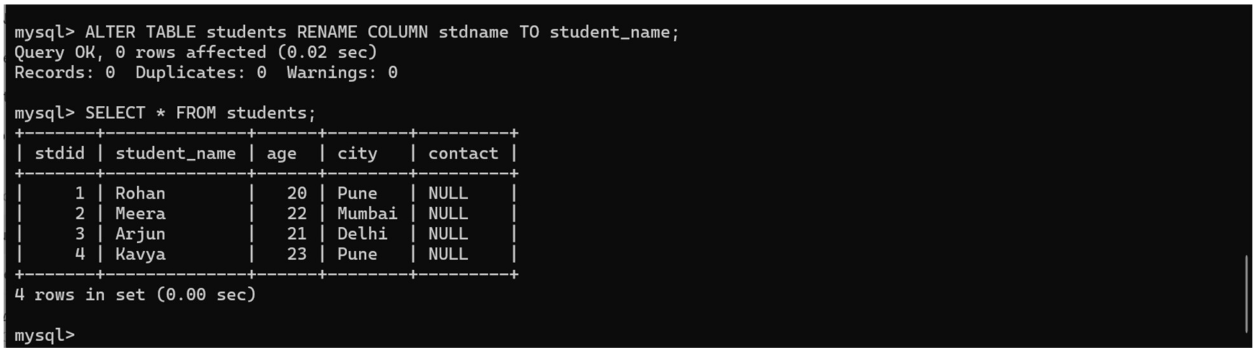


```
mysql> ALTER TABLE students MODIFY city VARCHAR(100);
Query OK, 4 rows affected (0.05 sec)
Records: 4  Duplicates: 0  Warnings: 0

mysql> SELECT * FROM students;
+-------+---------+------+--------+---------+
| stdid | stdname | age  | city   | contact |
+-------+---------+------+--------+---------+
|     1 | Rohan   |   20 | Pune   | NULL    |
|     2 | Meera   |   22 | Mumbai | NULL    |
|     3 | Arjun   |   21 | Delhi  | NULL    |
|     4 | Kavya   |   23 | Pune   | NULL    |
+-------+---------+------+--------+---------+
4 rows in set (0.00 sec)

mysql>
```

Q13. Rename the column stdname to student_name.

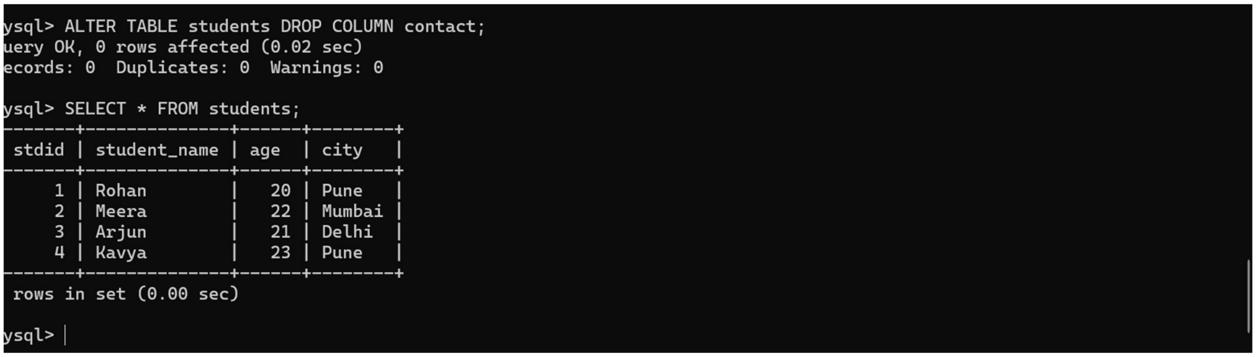


```
mysql> ALTER TABLE students RENAME COLUMN stdname TO student_name;
Query OK, 0 rows affected (0.02 sec)
Records: 0  Duplicates: 0  Warnings: 0

mysql> SELECT * FROM students;
+-------+--------------+------+--------+---------+
| stdid | student_name | age  | city   | contact |
+-------+--------------+------+--------+---------+
|     1 | Rohan        |   20 | Pune   | NULL    |
|     2 | Meera        |   22 | Mumbai | NULL    |
|     3 | Arjun        |   21 | Delhi  | NULL    |
|     4 | Kavya        |   23 | Pune   | NULL    |
+-------+--------------+------+--------+---------+
4 rows in set (0.00 sec)

mysql>
```

Q14. Drop the column contact from the table.

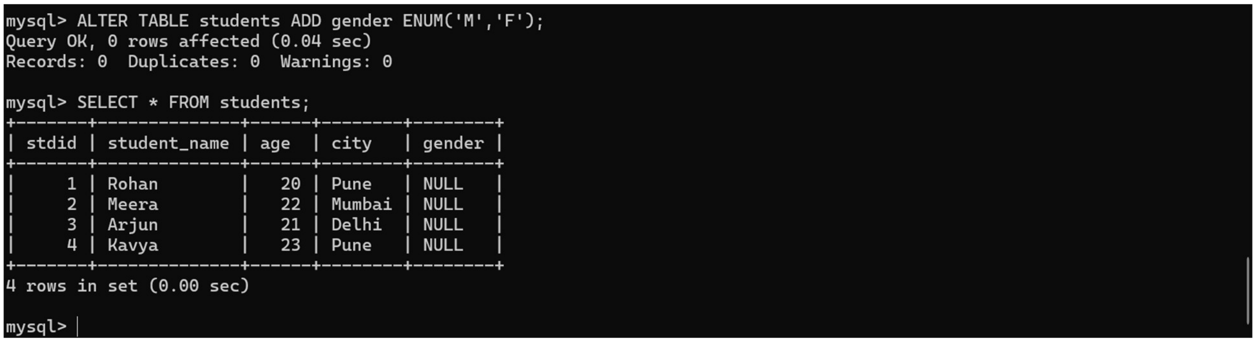


```
ysql> ALTER TABLE students DROP COLUMN contact;
uery OK, 0 rows affected (0.02 sec)
ecords: 0  Duplicates: 0  Warnings: 0

ysql> SELECT * FROM students;
-------+--------------+------+--------+
 stdid | student_name | age  | city   |
-------+--------------+------+--------+
     1 | Rohan        |   20 | Pune   |
     2 | Meera        |   22 | Mumbai |
     3 | Arjun        |   21 | Delhi  |
     4 | Kavya        |   23 | Pune   |
-------+--------------+------+--------+
 rows in set (0.00 sec)

ysql>
```

Q15. Add a new column gender ENUM('M','F').



```
mysql> ALTER TABLE students ADD gender ENUM('M','F');
Query OK, 0 rows affected (0.04 sec)
Records: 0  Duplicates: 0  Warnings: 0

mysql> SELECT * FROM students;
+-------+--------------+------+--------+--------+
| stdid | student_name | age  | city   | gender |
+-------+--------------+------+--------+--------+
|     1 | Rohan        |   20 | Pune   | NULL   |
|     2 | Meera        |   22 | Mumbai | NULL   |
|     3 | Arjun        |   21 | Delhi  | NULL   |
|     4 | Kavya        |   23 | Pune   | NULL   |
+-------+--------------+------+--------+--------+
4 rows in set (0.00 sec)

mysql> 
```

PART 3 — JOIN PRACTICE

Tables:

Table: students

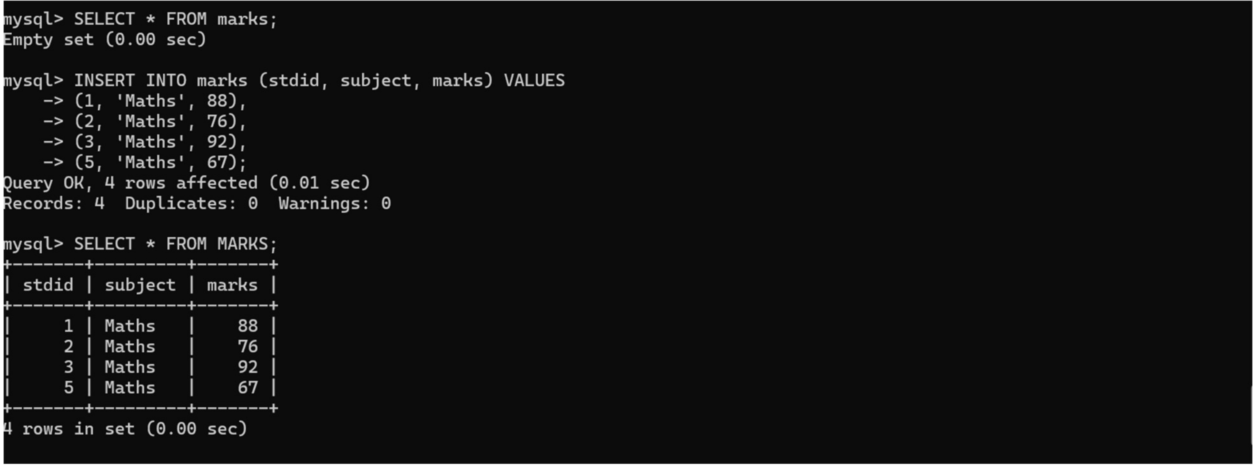
stdid	student_name	city
1	Rohan	Pune
2	Meera	Mumbai
3	Arjun	Delhi
4	Kavya	Pune

Table: marks

stdid	subject	marks
1	Maths	88
2	Maths	76
3	Maths	92
5	Maths	67

Q16. Display student name and marks of only those students who have matching IDs in both tables.

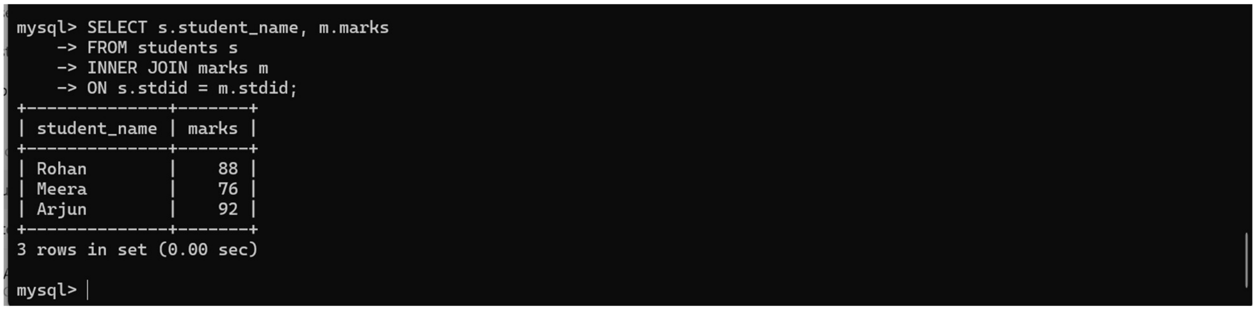
(Students without marks should not appear.)



```
mysql> SELECT * FROM marks;
Empty set (0.00 sec)

mysql> INSERT INTO marks (stdid, subject, marks) VALUES
    -> (1, 'Maths', 88),
    -> (2, 'Maths', 76),
    -> (3, 'Maths', 92),
    -> (5, 'Maths', 67);
Query OK, 4 rows affected (0.01 sec)
Records: 4  Duplicates: 0  Warnings: 0

mysql> SELECT * FROM MARKS;
+-------+---------+-------+
| stdid | subject | marks |
+-------+---------+-------+
|     1 | Maths   |    88 |
|     2 | Maths   |    76 |
|     3 | Maths   |    92 |
|     5 | Maths   |    67 |
+-------+---------+-------+
4 rows in set (0.00 sec)
```



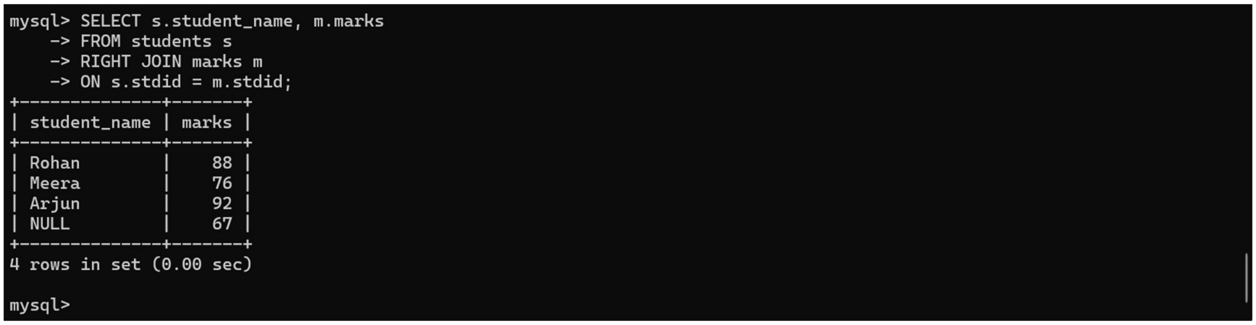
```
mysql> SELECT s.student_name, m.marks
    -> FROM students s
    -> INNER JOIN marks m
    -> ON s.stdid = m.stdid;
+--------------+-------+
| student_name | marks |
+--------------+-------+
| Rohan        |    88 |
| Meera        |    76 |
| Arjun        |    92 |
+--------------+-------+
3 rows in set (0.00 sec)

mysql>
```

Q17. Display all students and their marks.

(If marks not available, show NULL.)

RIGHT JOIN

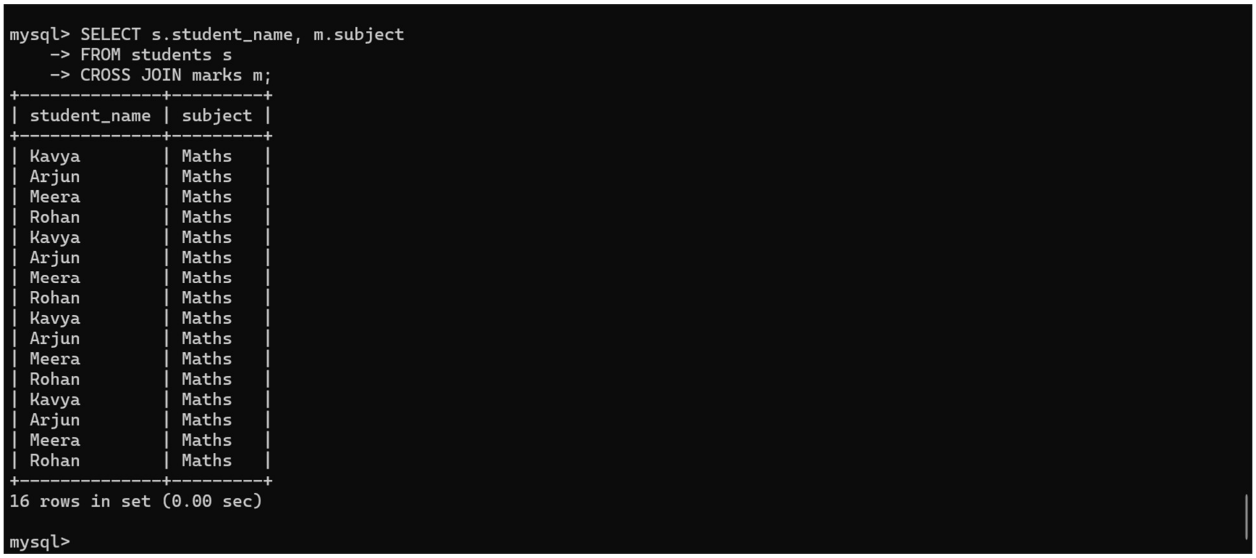


```
mysql> SELECT s.student_name, m.marks
    -> FROM students s
    -> RIGHT JOIN marks m
    -> ON s.stdid = m.stdid;
+--------------+-------+
| student_name | marks |
+--------------+-------+
| Rohan        |    88 |
| Meera        |    76 |
| Arjun        |    92 |
| NULL         |    67 |
+--------------+-------+
4 rows in set (0.00 sec)

mysql>
```

Q18. Display all marks records along with student names.

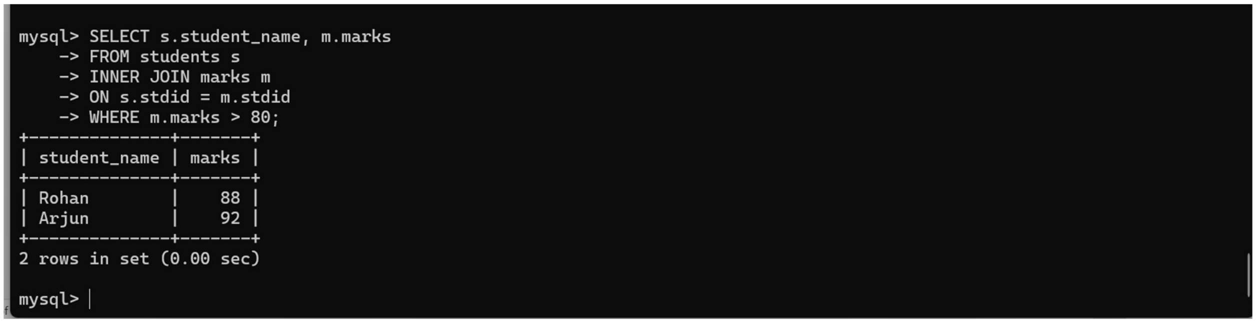
(If student doesn’t exist in students table, show NULL.)



```
mysql> SELECT s.student_name, m.subject
    -> FROM students s
    -> CROSS JOIN marks m;
+--------------+---------+
| student_name | subject |
+--------------+---------+
| Kavya        | Maths   |
| Arjun        | Maths   |
| Meera        | Maths   |
| Rohan        | Maths   |
| Kavya        | Maths   |
| Arjun        | Maths   |
| Meera        | Maths   |
| Rohan        | Maths   |
| Kavya        | Maths   |
| Arjun        | Maths   |
| Meera        | Maths   |
| Rohan        | Maths   |
| Kavya        | Maths   |
| Arjun        | Maths   |
| Meera        | Maths   |
| Rohan        | Maths   |
+--------------+---------+
16 rows in set (0.00 sec)

mysql>
```

Q20. Using INNER JOIN, display students who scored more than 80.



```
mysql> SELECT s.student_name, m.marks
    -> FROM students s
    -> INNER JOIN marks m
    -> ON s.stdid = m.stdid
    -> WHERE m.marks > 80;
+--------------+-------+
| student_name | marks |
+--------------+-------+
| Rohan        |    88 |
| Arjun        |    92 |
+--------------+-------+
2 rows in set (0.00 sec)

mysql> 
```