Davis- MYSQL(Practice queries)

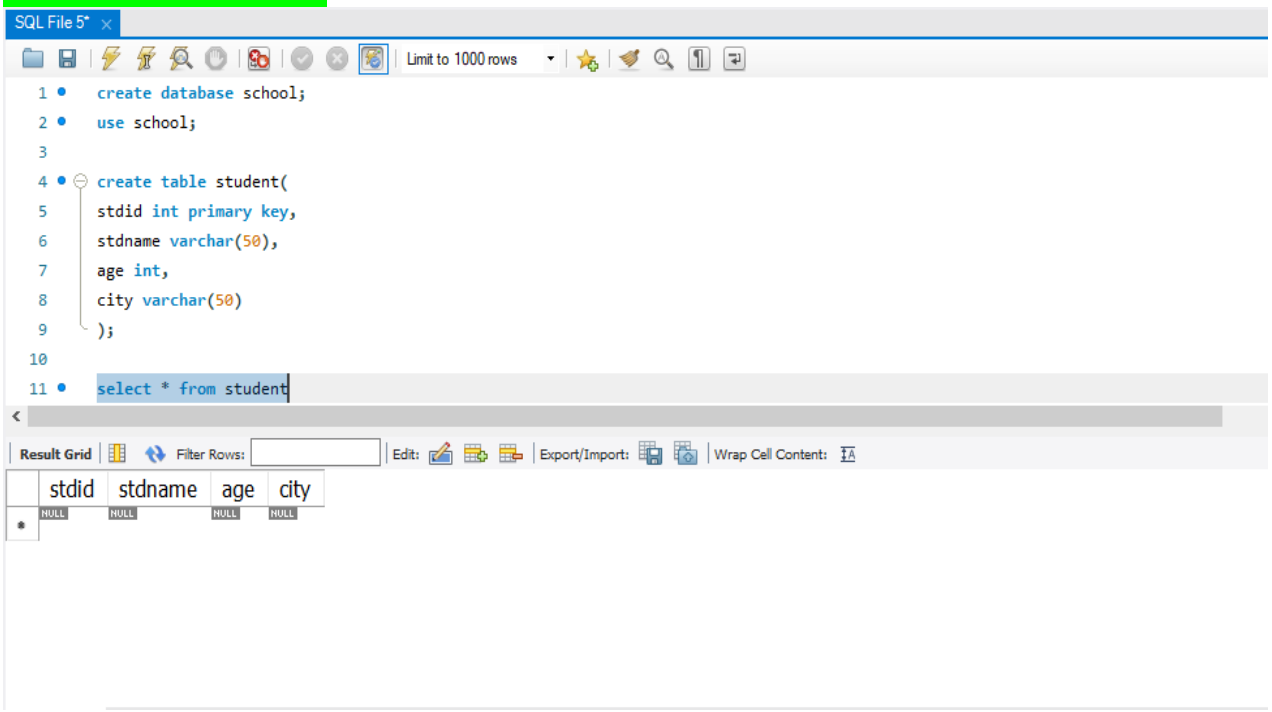
Date - 21-11-25

Q1. Create a table named students with fields:

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

```
create table student(
stdid int primary key,
stdname varchar(50),
age int,
city varchar(50)
);
```

```
select * from student
```



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

```
INSERT INTO student (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');
```

```
10
11 •  select * from student
12
13    INSERT INTO student (stdid, stdname, age, city) VALUES
14    (1, 'Rohan', 20, 'Pune'),
15    (2, 'Meera', 22, 'Mumbai'),
16    (3, 'Arjun', 21, 'Delhi'),
17    (4, 'Kavya', 23, 'Pune'),
18    (5, 'Neha', 22, 'Kolkata');
19 •  select * from student
20
```

Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content:

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

student 2

Q3. Display all student records

select * from student

```
10
11 •  select * from student
12
13    INSERT INTO student (stdid, stdname, age, city) VALUES
14    (1, 'Rohan', 20, 'Pune'),
15    (2, 'Meera', 22, 'Mumbai'),
16    (3, 'Arjun', 21, 'Delhi'),
17    (4, 'Kavya', 23, 'Pune'),
18    (5, 'Neha', 22, 'Kolkata');
19 •  select * from student
20
```

Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content:

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

student 2 X

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

```
select stdname, age
from student;
```

```
16      (3, 'Arjun', 21, 'Delhi'),
17      (4, 'Kavya', 23, 'Pune'),
18      (5, 'Neha', 22, 'Kolkata');
19      select * from student
20
21      select * from student
22
23      select stdname, age
24      from student;
25
26
```

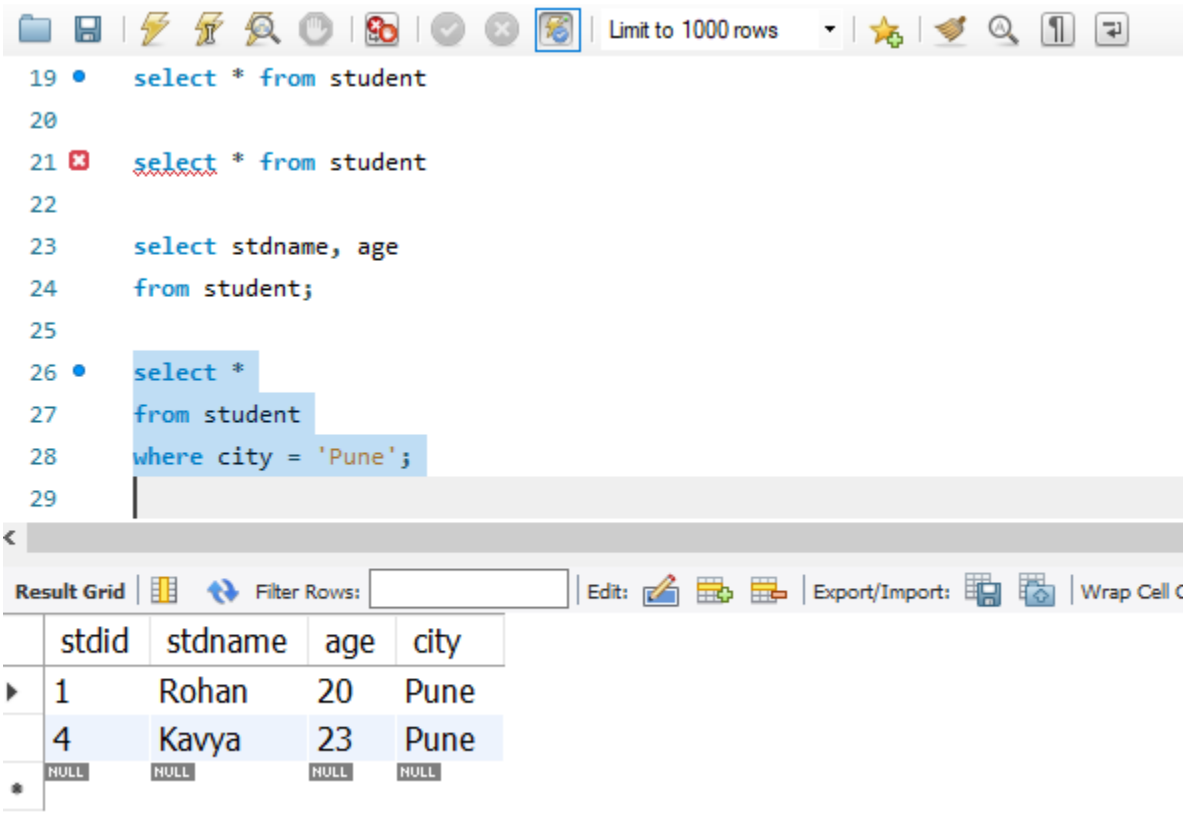
Result Grid | Filter Rows: | Export: | Wrap Cell Content:

stdname	age
Rohan	20
Meera	22
Arjun	21
Kavya	23
Neha	22

student 4

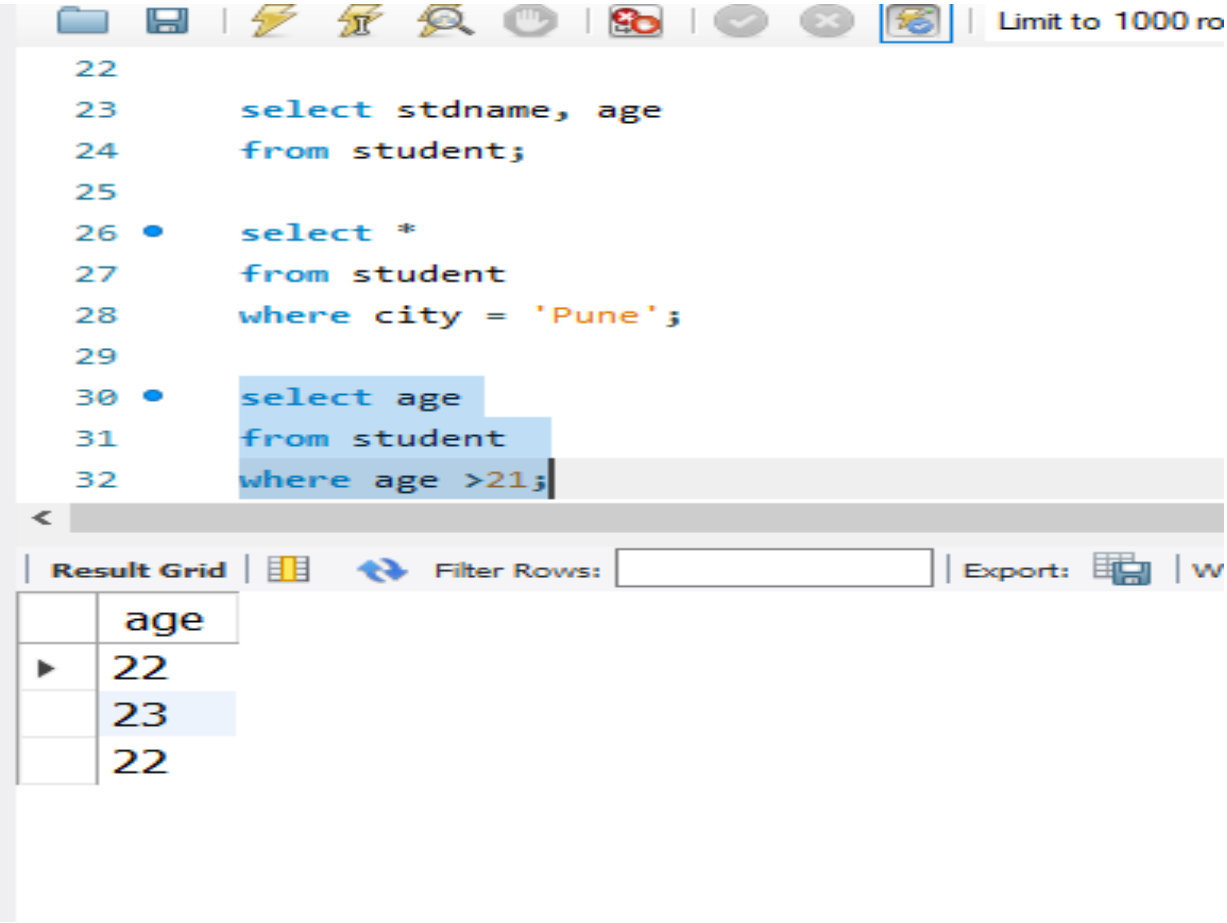
Q5. Display students who are from Pune

```
select *
from student
where city = 'Pune';
```



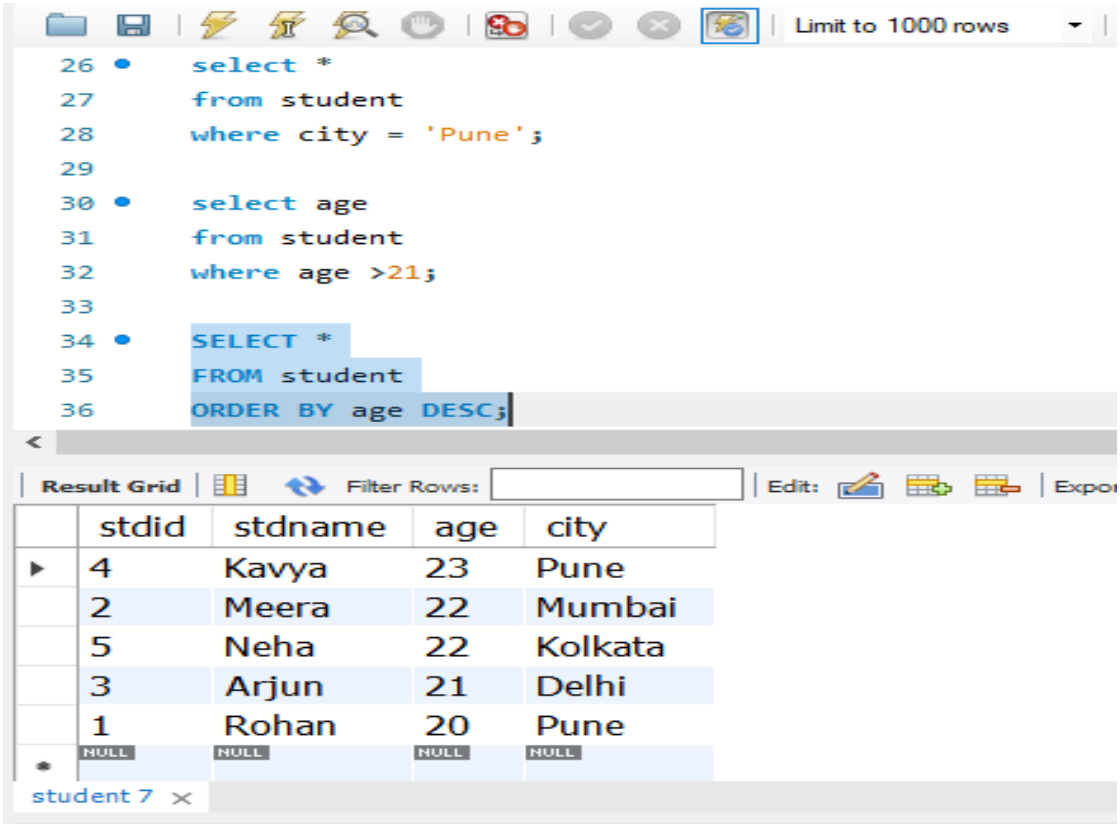
Q6. Display students whose age is greater than 21.

```
select name,age
from student
where age >21;
```



Q7. Display students in descending order of age.

```
SELECT *
FROM student
ORDER BY age DESC;
```



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

```
SELECT *
FROM student
ORDER BY age DESC;
```

```
34 •    SELECT *
35      FROM student
36      ORDER BY age DESC;
37
```

Result Grid | Filter Rows: | Edit:

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

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

```
SELECT *
FROM student
WHERE stdname LIKE 'K%';
```

```
41
42 •  SELECT *
43    FROM student
44    WHERE stdname LIKE 'K%';
```

Result Grid | Filter Rows: | Edit:

stdid	stdname	age	city
4	Kavya	23	Pune
NULL	NULL	NULL	NULL

Q10. Delete student whose stdid = 5.

```
DELETE FROM student
WHERE stdid = 5;

select * from student
```

```
46 •    DELETE FROM student
47      WHERE stdid = 5;
48
49 •    select * from student
50
```

Result Grid | Filter Rows: | Edit:

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

PART 2 — ALTER COMMAND QUESTIONS

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

```
ALTER TABLE student
ADD contact VARCHAR(15);
select * from student
```

```
50
51  ALTER TABLE student
52  ADD contact VARCHAR(15);
53  select * from student
```

Result Grid | Filter Rows: | Edit:

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
NULL	NULL	NULL	NULL	NULL

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

```
ALTER TABLE student
MODIFY city VARCHAR(100);
select * from student
```

```
55 •  ALTER TABLE student
56    MODIFY city VARCHAR(100);
57 •  select * from student
58
```

Result Grid | Filter Rows: | Edit:

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
NULL	NULL	NULL	NULL	NULL

Q13. Rename the column stdname to student_name.

```
ALTER TABLE student
```

```
CHANGE stdname student_name VARCHAR(255);
select * from student
```

```
58
59  ALTER TABLE student
60  CHANGE stdname student_name VARCHAR(255);
61  select * from student
62
```

Result Grid | Filter Rows: | Edit: | Export/Import:

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
NULL	NULL	NULL	NULL	NULL

Q14. Drop the column contact from the table.

```
ALTER TABLE student
DROP COLUMN contact;
select * from student
```

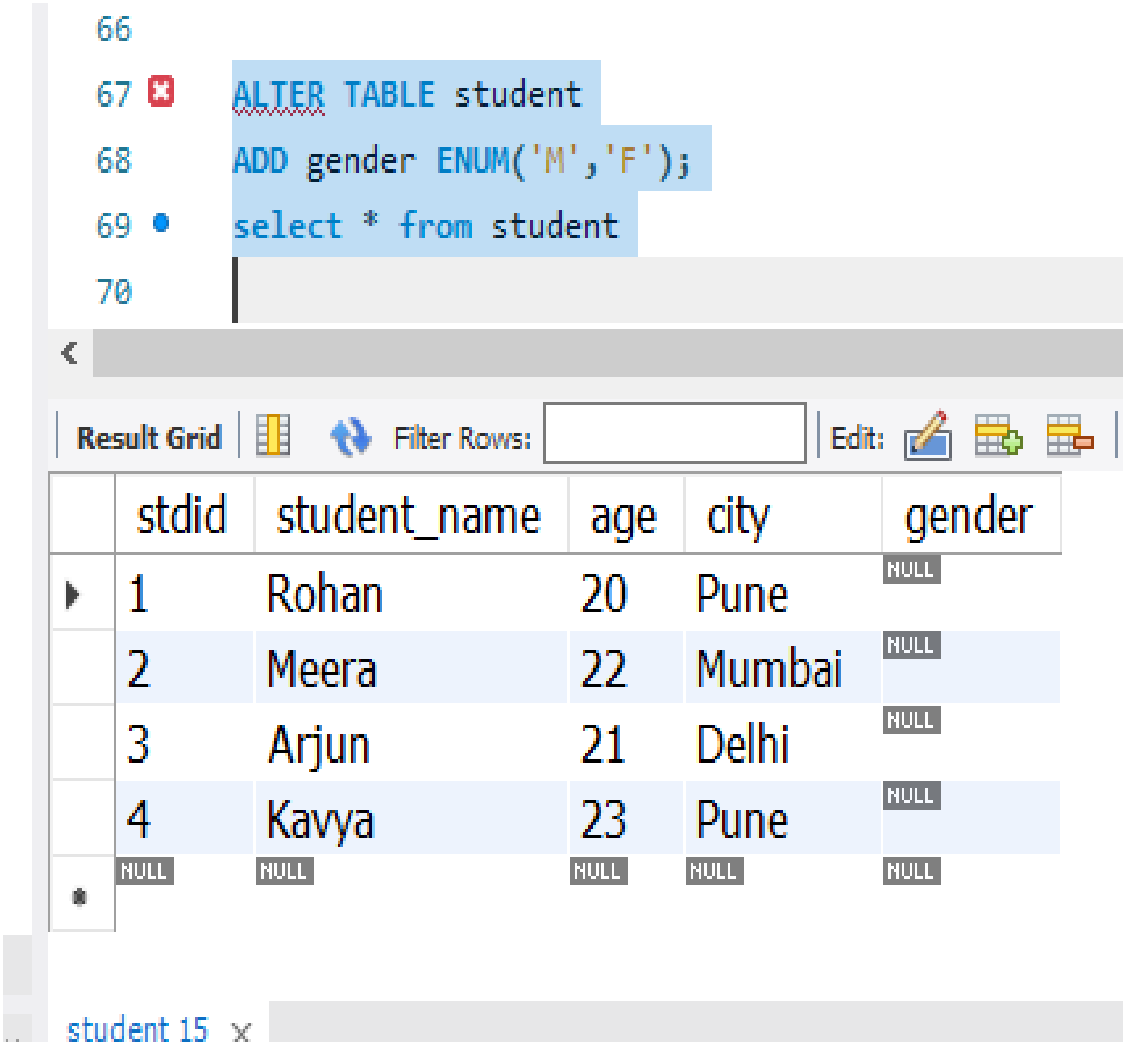
```
63  ALTER TABLE student
64  DROP COLUMN contact;
65  select * from student
66
```

Result Grid | Filter Rows: | Edit:

stdid	student_name	age	city
1	Rohan	20	Pune
2	Meera	22	Mumbai
3	Arjun	21	Delhi
4	Kavya	23	Pune
NULL	NULL	NULL	NULL

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

```
ALTER TABLE student
ADD gender ENUM('M','F');
select * from student
```



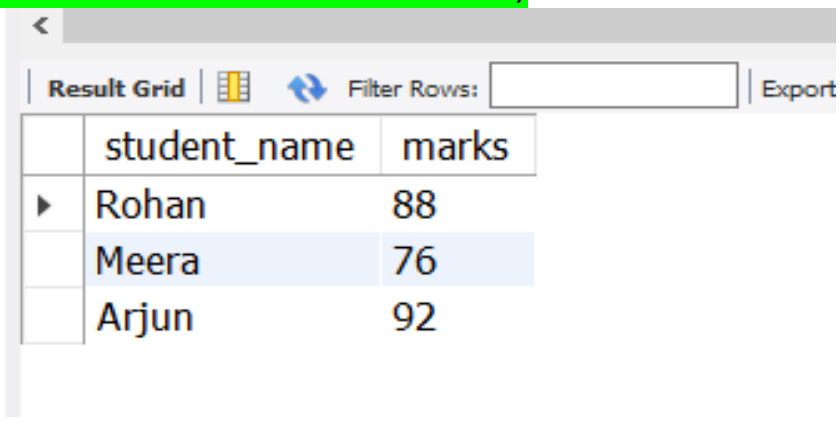
PART 3 — JOIN PRACTICE

INNER JOIN

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

CREATE TABLE student(
stdid int primary key,

```
student_name varchar(50),
city varchar(55)
);
insert into student(stdid,student_name,city)
values(1,"Rohan","Pune"),
(2,"Meera","Mumbai"),
(3,"Arjun","Delhi"),
(4,"Kavya","Pune");
CREATE TABLE marks(
stdid int primary key,
subject varchar(25),
marks int not null
);
insert into marks(stdid,subject,marks)
values(1,"Maths",88),
(2,"Maths",76),
(3,"Maths",92),
(5,"Maths",67);
-- --INNER JOIN----
SELECT student.student_name, marks.marks
FROM student
INNER JOIN marks
ON student.stdid = marks.stdid;
```

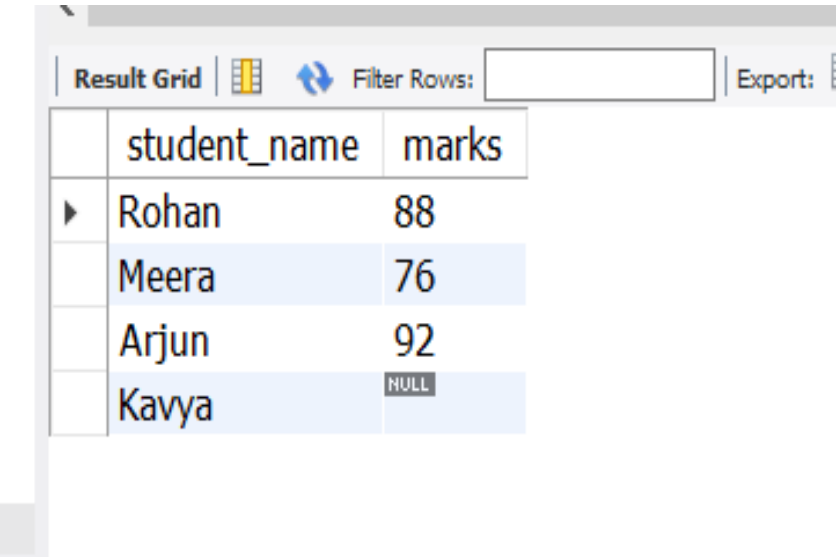


student_name	marks
Rohan	88
Meera	76
Arjun	92

LEFT JOIN

Q17. Display all students and their marks.

```
CREATE TABLE student(
stdid int primary key,
student_name varchar(50),
city varchar(55)
);
insert into student(stdid,student_name,city)
values(1,"Rohan","Pune"),
(2,"Meera","Mumbai"),
(3,"Arjun","Delhi"),
(4,"Kavya","Pune");
CREATE TABLE marks(
stdid int primary key,
subject varchar(25),
marks int not null
);
insert into marks(stdid,subject,marks)
values(1,"Maths",88),
(2,"Maths",76),
(3,"Maths",92),
(5,"Maths",67);
----LEFT JOIN-------
SELECT students.student_name, marks.marks
FROM students
LEFT JOIN marks
ON students.stdid = marks.stdid;
```

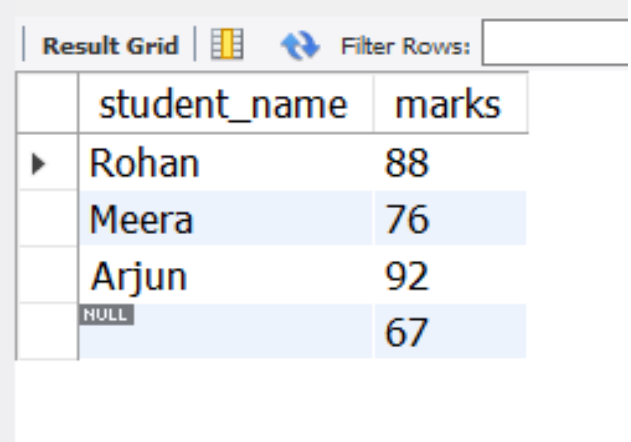


RIGHT JOIN

Q18. Display all marks records along with student names.

```
CREATE TABLE student(
stdid int primary key,
student_name varchar(50),
city varchar(55)
);
insert into student(stdid,student_name,city)
values(1,"Rohan","Pune"),
(2,"Meera","Mumbai"),
(3,"Arjun","Delhi"),
(4,"Kavya","Pune");
CREATE TABLE marks(
stdid int primary key,
subject varchar(25),
marks int not null
);
insert into marks(stdid,subject,marks)
values(1,"Maths",88),
(2,"Maths",76),
(3,"Maths",92),
(5,"Maths",67);
```

```
-------RIGHT JOIN-------
SELECT student.student_name, marks.marks
FROM student
RIGHT JOIN marks
ON student.stdid = marks.stdid;
```



Result Grid | Filter Rows:

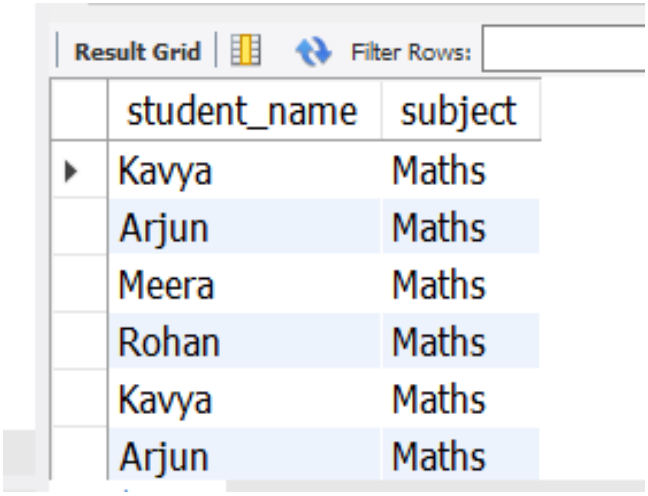
student_name	marks
Rohan	88
Meera	76
Arjun	92
NULL	67

CROSS JOIN

Q19. Display all possible combinations of students and subjects.

```
CREATE TABLE student(
stdid int primary key,
student_name varchar(50),
city varchar(55)
);
insert into student(stdid,student_name,city)
values(1,"Rohan","Pune"),
(2,"Meera","Mumbai"),
(3,"Arjun","Delhi"),
(4,"Kavya","Pune");
CREATE TABLE marks(
stdid int primary key,
subject varchar(25),
marks int not null
);
insert into marks(stdid,subject,marks)
values(1,"Maths",88),
(2,"Maths",76),
```

```
(3,"Maths",92),
(5,"Maths",67
-----CROS JOIN-----
SELECT student.student_name, marks.subject
FROM student
CROSS JOIN marks;
```



Result Grid | Filter Rows:

student_name	subject
Kavya	Maths
Arjun	Maths
Meera	Maths
Rohan	Maths
Kavya	Maths
Arjun	Maths

JOIN with Filtering

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

```
CREATE TABLE student(
stdid int primary key,
student_name varchar(50),
city varchar(55)
);
insert into student(stdid,student_name,city)
values(1,"Rohan","Pune"),
(2,"Meera","Mumbai"),
(3,"Arjun","Delhi"),
(4,"Kavya","Pune");
CREATE TABLE marks(
stdid int primary key,
subject varchar(25),
marks int not null
```

```
);
insert into marks(stdid,subject,marks)
values(1,"Maths",88),
(2,"Maths",76),
(3,"Maths",92),
(5,"Maths",67
-----INNER JOIN-----
SELECT student.student_name, marks.marks
FROM student
INNER JOIN marks
ON student.stdid = marks.stdid
WHERE marks.marks > 80;
```