

P4: Filtering Data Using WHERE

By 2047262 (Udit Gupta)

a) 1. =, <, >, >=, <=, <>

```
select * from members where MembershipID=101;

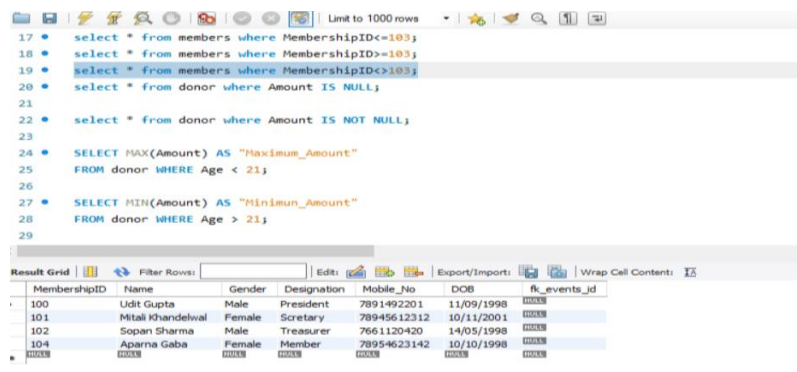
select * from members where MembershipID<103;

select * from members where MembershipID>103;

select * from members where MembershipID<=103;

select * from members where MembershipID>=103;

select * from members where MembershipID<>103;
```



The screenshot shows a database management tool interface. The top part displays a list of SQL queries, with the third query highlighted: `select * from members where MembershipID<>103;`. Below the queries, there is a 'Result Grid' section showing a table with 6 columns: MembershipID, Name, Gender, Designation, Mobile_No, and DOB. The table contains 4 rows of data.

MembershipID	Name	Gender	Designation	Mobile_No	DOB
100	Udit Gupta	Male	President	7891492201	11/09/1998
101	Mitali Khandelwal	Female	Secretary	78945612312	10/11/2001
102	Sopani Sharma	Male	Treasurer	7661120420	14/05/1998
104	Aparna Gaba	Female	Member	78954623142	10/10/1998

2. null values

```
select * from donor where Amount IS NULL;
```

3. not null values;

```
select * from donor where Amount IS NOT NULL;
```

4. min, max, avg, count with “where” keyword

```
SELECT MAX(Amount) AS "Maximum_Amount"
FROM donor WHERE Age < 21;

SELECT MIN(Amount) AS "Minimun_Amount"
FROM donor WHERE Age > 21;

SELECT AVG(Amount) Avg_Amount FROM donor WHERE age>=21;

SELECT COUNT(*) FROM members WHERE Gender='male';
```

SQL Query Editor showing multiple queries and their results.

Query 18:

```

24 * SELECT MAX(Amount) AS "Maximum_Amount"
25 FROM donor WHERE Age < 21;
26
27 * SELECT MIN(Amount) AS "Minimum_Amount"
28 FROM donor WHERE Age > 21;
29
30 * SELECT AVG(Amount) Avg_Amount FROM donor WHERE age>=21;
31
32 * SELECT COUNT(*) FROM members WHERE Gender='male';
33
34
35 * SELECT * FROM members WHERE Name IN ('Udit Gupta', 'Mitali Khandelwal', 'Aparna Gaba');

```

Result Grid:

Maximum_Amount
500

Query 19:

```

26
27 * SELECT MIN(Amount) AS "Minimum_Amount"
28 FROM donor WHERE Age > 21;
29
30 * SELECT AVG(Amount) Avg_Amount FROM donor WHERE age>=21;
31
32 * SELECT COUNT(*) FROM members WHERE Gender='male';
33
34
35 * SELECT * FROM members WHERE Name IN ('Udit Gupta', 'Mitali Khandelwal', 'Aparna Gaba');
36
37 * SELECT * FROM donor WHERE Amount BETWEEN 200 and 2000;
38

```

Result Grid:

COUNT(*)
3

b) 1. IN

SELECT * FROM members WHERE Name IN ('Udit Gupta', 'Mitali Khandelwal', 'Aparna Gaba');

SQL Query Editor showing the result of the query.

Query 19:

```

26
27 * SELECT MIN(Amount) AS "Minimum_Amount"
28 FROM donor WHERE Age > 21;
29
30 * SELECT AVG(Amount) Avg_Amount FROM donor WHERE age>=21;
31
32 * SELECT COUNT(*) FROM members WHERE Gender='male';
33
34
35 * SELECT * FROM members WHERE Name IN ('Udit Gupta', 'Mitali Khandelwal', 'Aparna Gaba');
36
37 * SELECT * FROM donor WHERE Amount BETWEEN 200 and 2000;
38

```

Result Grid:

MembershipID	Name	Gender	Designation	Mobile_No	DOB	fk_events_id
100	Udit Gupta	Male	President	7891492201	11/09/1998	0000
101	Mitali Khandelwal	Female	Secretary	78945612312	10/11/2001	0000
104	Aparna Gaba	Female	Member	78924623142	10/10/1998	0000

2. BETWEEN

SELECT * FROM donor WHERE Amount BETWEEN 200 and 2000;

Query 1 P2 p3 p4

Limit to 1000 rows

```

26
27 • SELECT MIN(Amount) AS "Minimum_Amount"
28   FROM donor WHERE Age > 21;
29
30 • SELECT AVG(Amount) Avg_Amount FROM donor WHERE age>=21;
31
32 • SELECT COUNT(*) FROM members WHERE Gender='male';
33
34
35 • SELECT * FROM members WHERE Name IN ('Udit Gupta', 'Mitali Khandelwal', 'Aparna Gaba');
36
37 • SELECT * FROM donor WHERE Amount BETWEEN 200 and 2000;
38

```

Result Grid

Dnoid	LastName	FirstName	Age	Amount
100	Gupta	UDIT	22	2000
103	Palwal	Pranay	20	500

donor 21 x Apply Revert

3. LIKE (Wildcard characters %, _)

SELECT * FROM members WHERE Designation LIKE 'Mem%';

SELECT * FROM members WHERE Gender LIKE 'Fem_Le';

```

35 • SELECT * FROM members WHERE Name IN ('Udit Gupta', 'Mitali Khandelwal', 'Aparna Gaba');
36
37 • SELECT * FROM donor WHERE Amount BETWEEN 200 and 2000;
38
39 • SELECT * FROM members WHERE Designation LIKE 'Mem%';
40
41 • SELECT * FROM members WHERE Gender LIKE 'Fem_Le';
42
43 • SELECT m.MembershipID, m.Name, d.Amount
44   FROM members AS m, donor AS d
45   WHERE m.Name='Udit Gupta' AND d.Dnoid=m.MembershipID;
46
47

```

Result Grid

MembershipID	Name	Gender	Designation	Mobile_No	DOB	fl_events_id
103	Nishant Jain	Male	Member	9659487562	07/04/1999	1000
104	Aparna Gaba	Female	Member	78954623142	10/10/1998	1000

members 22 x Apply

4. Aliases

SELECT m.MembershipID, m.Name, d.Amount

FROM members AS m, donor AS d

WHERE m.Name='Udit Gupta' AND d.Dnoid=m.MembershipID;

```

41 • SELECT * FROM members WHERE Gender LIKE 'Fem_Le';
42
43 • SELECT m.MembershipID, m.Name, d.Amount
44   FROM members AS m, donor AS d
45   WHERE m.Name='Udit Gupta' AND d.Dnoid=m.MembershipID;
46
47
48 • SELECT * FROM donor
49   WHERE (age = 20 AND Amount = 1000);
50
51
52 • SELECT * FROM donor
53   WHERE (age = 20 OR Amount = 2000);

```

Result Grid

MembershipID	Name	Amount
100	Udit Gupta	2000

c) 1. AND, OR, NOT (combine keywords, operators)

```
SELECT * FROM donor
```

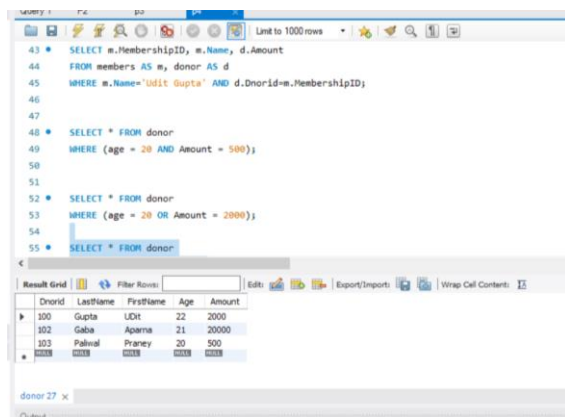
```
WHERE (age = 20 AND Amount = 500);
```

```
SELECT * FROM donor
```

```
WHERE (age = 20 OR Amount = 2000);
```

```
SELECT * FROM donor
```

```
WHERE Amount IS NOT NULL;
```



```
UPDATE donor SET Amount = 500 WHERE Dnoid=103;
```

```
DELETE FROM donor WHERE Dnoid=104;
```

