Basic SELECT statement

1

```sql
SELECT first_name "First Name",  last_name "Last Name"
    FROM employees;
```

2

```sql
SELECT first_name "First Name",  last_name "Last Name"
    FROM employees;
```

3

```sql
SELECT *
    FROM employees
    ORDER BY first_name DESC;
```

4

```sql
SELECT first_name, last_name, salary, salary*.15 PF
    FROM employees;
```

5

```sql
SELECT employee_id, first_name, last_name, salary
    FROM employees
    ORDER BY salary;
```

6

```sql
SELECT SUM(salary)
     FROM employees;
```

7

```sql
SELECT MAX(salary), MIN(salary)
     FROM employees;
```

8

```sql
SELECT AVG(salary), COUNT(*)
     FROM employees;
```

9

```sql
SELECT COUNT(*)
    FROM employees;
```

10

```
SELECT COUNT(DISTINCT job_id)
    FROM employees;
```

11

```
SELECT UPPER(first_name)
   FROM employees;
```

12

```
SELECT SUBSTRING(first_name,1,3)
     FROM employees;
```

13

```
SELECT 171*214+625 Result;
```

14

```
SELECT  CONCAT(first_name,' ', last_name) 'Employee Name'
     FROM employees;
```

15

```
SELECT TRIM(first_name)
    FROM employees;
```

16

```
SELECT first_name,last_name, LENGTH(first_name)+LENGTH(last_name)  'Length of  Names'
    FROM employees;
```

17

```
SELECT *
   FROM employees
   WHERE  first_name REGEXP  '[0-9]';
```

18

```
SELECT employee_id, first_name
    FROM employees  LIMIT 10;
```

19

```
SELECT first_name, last_name, round(salary/12,2) as 'Monthly Salary'
   FROM employees;
```

Where statements

1

```sql
SELECT first_name, last_name, salary
FROM employees
WHERE salary NOT BETWEEN 10000 AND 15000;
```

2

```sql
SELECT first_name, last_name, department_id
FROM employees
WHERE department_id IN (30, 100)
ORDER BY  department_id  ASC;
```

3

```sql
SELECT first_name, last_name, salary, department_id
FROM employees
WHERE salary NOT BETWEEN 10000 AND 15000
AND department_id IN (30, 100);
```

4

```sql
SELECT first_name, last_name, hire_date
FROM employees
WHERE YEAR(hire_date)  LIKE '1987%';
```

5

```sql
SELECT first_name
FROM employees
WHERE first_name LIKE '%b%'
AND first_name LIKE '%c%';
```

6

```sql
SELECT last_name, job_id, salary
FROM employees
WHERE job_id IN ('IT_PROG', 'SH_CLERK')
AND salary NOT IN (4500,10000, 15000);
```

7

```sql
SELECT last_name FROM employees WHERE last_name LIKE '______';
```

8

```sql
SELECT last_name FROM employees WHERE last_name LIKE '__e%';
```

9

```sql
SELECT DISTINCT job_id  FROM employees;
```

10

```sql
SELECT first_name, last_name, salary, salary*.15 PF from employees;
```

11

```sql
SELECT *
FROM employees
WHERE last_name IN('JONES', 'BLAKE', 'SCOTT', 'KING', 'FORD');
```

Aggregate Functions and Group by

1

```sql
SELECT COUNT(DISTINCT job_id)
FROM employees;
```

2

```sql
SELECT SUM(salary)
FROM employees;
```

3

```sql
SELECT MIN(salary)
FROM employees;
```

4

```sql
SELECT MAX(salary)
FROM employees
WHERE job_id = 'IT_PROG';
```

5

```sql
SELECT AVG(salary),count(*)
FROM employees
WHERE department_id = 90;
```

6

```sql
SELECT ROUND(MAX(salary),0) 'Maximum',
ROUND(MIN(salary),0) 'Minimum',
ROUND(SUM(salary),0) 'Sum',
ROUND(AVG(salary),0) 'Average'
FROM employees;

```

7

```sql
SELECT job_id, COUNT(*)
FROM employees
GROUP BY job_id;
```

8

```sql
SELECT MAX(salary) - MIN(salary) DIFFERENCE
FROM employees;
```

9

```sql
SELECT manager_id, MIN(salary)
FROM employees
WHERE manager_id IS NOT NULL
GROUP BY manager_id
ORDER BY MIN(salary) DESC;
```

10

```sql
SELECT department_id, SUM(salary)
FROM employees
GROUP BY department_id;
```

11

```sql
SELECT job_id, AVG(salary)
FROM employees
WHERE job_id <> 'IT_PROG'
GROUP BY job_id;
```

12

```
SELECT job_id, SUM(salary), AVG(salary), MAX(salary), MIN(salary)
FROM employees
WHERE department_id = '90'
GROUP BY job_id;
```

13

```
SELECT job_id, MAX(salary)
FROM employees
GROUP BY job_id
HAVING MAX(salary) >=4000;
```

14

```
SELECT job_id, AVG(salary), COUNT(*)
FROM employees
GROUP BY department_id
HAVING COUNT(*) > 10;
```

MySQL Subquery

1

```
SELECT FIRST_NAME, LAST_NAME, SALARY
FROM employees
WHERE SALARY >
(SELECT salary FROM employees WHERE last_name = 'Bull');
```

2

```
SELECT first_name, last_name
FROM employees
WHERE department_id
IN (SELECT department_id FROM departments WHERE department_name='IT');
```

3

```
SELECT first_name, last_name FROM employees
WHERE manager_id in (select employee_id
FROM employees WHERE department_id
IN (SELECT department_id FROM departments WHERE location_id
IN (select location_id from locations where country_id='US')));
```

4

```sql
SELECT first_name, last_name
FROM employees
WHERE (employee_id IN (SELECT manager_id FROM employees));
```

5

```sql
SELECT first_name, last_name, salary FROM employees
WHERE salary > (SELECT AVG(salary) FROM employees);
```

6

```sql
SELECT first_name, last_name, salary
FROM employees
WHERE employees.salary = (SELECT min_salary
FROM jobs
WHERE employees.job_id = jobs.job_id);
```

7

```sql
SELECT first_name, last_name, salary
FROM employees
WHERE department_id IN
(SELECT department_id FROM departments WHERE department_name LIKE 'IT%')
AND salary > (SELECT avg(salary) FROM employees);
```

8

```sql
SELECT first_name, last_name, salary
FROM employees
WHERE salary >
(SELECT salary FROM employees WHERE last_name = 'Bell') ORDER BY first_name;
```

9

```sql
SELECT * FROM employees
WHERE salary = (SELECT MIN(salary) FROM employees);
```

10

```sql
SELECT * FROM employees
WHERE salary >
ALL(SELECT avg(salary)FROM employees GROUP BY department_id);
```

11

```sql
SELECT first_name,last_name, job_id, salary
FROM employees
WHERE salary >
ALL (SELECT salary FROM employees WHERE job_id = 'SH_CLERK') ORDER BY salary ;
```

12

```sql
SELECT b.first_name,b.last_name
FROM employees b
WHERE NOT EXISTS (SELECT 'X' FROM employees a WHERE a.manager_id = b.employee_id);
```

13

```sql
SELECT employee_id, first_name, last_name,
(SELECT department_name
FROM departments d WHERE e.department_id = d.department_id)
department FROM employees e ORDER BY department;
```

14

```sql
SELECT employee_id, first_name
FROM employees AS A
WHERE salary >
(SELECT AVG(salary) FROM employees WHERE department_id = A.department_id);
```

15

```sql
SET @i = 0;
SELECT i, employee_id
FROM (SELECT @i := @i + 1 AS i, employee_id FROM employees)
a WHERE MOD(a.i, 2) = 0;
```

16

```sql
SELECT DISTINCT salary
FROM employees e1
WHERE 5 = (SELECT COUNT(DISTINCT salary)
FROM employees  e2
WHERE e2.salary >= e1.salary);
```

17

```sql
SELECT DISTINCT salary
FROM employees e1
WHERE 4 = (SELECT COUNT(DISTINCT salary)
FROM employees  e2
WHERE e2.salary <= e1.salary);
```

18

```sql
SELECT * FROM (
SELECT * FROM employees ORDER BY employee_id DESC LIMIT 10) sub
ORDER BY employee_id ASC;
```

19

```sql
SELECT * FROM departments
WHERE department_id
NOT IN (select department_id FROM employees);
```

20

```sql
SELECT DISTINCT salary
FROM employees a
WHERE  3 >= (SELECT COUNT(DISTINCT salary)
FROM employees b
WHERE b.salary >= a.salary)
ORDER BY a.salary DESC;
```

21

```sql
SELECT DISTINCT salary
FROM employees a
WHERE  3 >= (SELECT COUNT(DISTINCT salary)
FROM employees b
WHERE b.salary <= a.salary)
ORDER BY a.salary DESC;
```

22

```sql
SELECT *
FROM employees emp1
WHERE (1) = (
SELECT COUNT(DISTINCT(emp2.salary))
FROM employees emp2
WHERE emp2.salary > emp1.salary);
```

MySQL Joins

1

```sql
SELECT location_id, street_address, city, state_province, country_name
FROM locations
NATURAL JOIN countries;
```

2

```sql
SELECT first_name, last_name, department_id, department_name
FROM employees
JOIN departments USING (department_id);
```

3

```sql
SELECT e.first_name, e.last_name, e.job_id, e.department_id, d.department_name
FROM employees e
JOIN departments d
ON (e.department_id = d.department_id)
JOIN locations l ON
(d.location_id = l.location_id)
WHERE LOWER(l.city) = 'London';
```

4

```sql
SELECT e.employee_id 'Emp_Id', e.last_name 'Employee',
m.employee_id 'Mgr_Id', m.last_name 'Manager'
FROM employees e
join employees m
ON (e.manager_id = m.employee_id);
```

5

```sql
SELECT e.first_name, e.last_name, e.hire_date
FROM employees e
JOIN employees davies
ON (davies.last_name = 'Jones')
WHERE davies.hire_date < e.hire_date;
```

6

```sql
SELECT department_name AS 'Department Name',
COUNT(*) AS 'No of Employees'
FROM departments
INNER JOIN employees
ON employees.department_id = departments.department_id
GROUP BY departments.department_id, department_name
ORDER BY department_name;
```

7

```sql
SELECT employee_id, job_title, end_date-start_date Days FROM job_history
NATURAL JOIN jobs
WHERE department_id=90;
```

8

```sql
SELECT d.department_id, d.department_name, e.manager_id, e.first_name
FROM departments d
INNER JOIN employees e
ON (d.manager_id = e.employee_id);
```

9

```sql
SELECT d.department_name, e.first_name, l.city
FROM departments d
JOIN employees e
ON (d.manager_id = e.employee_id)
JOIN locations l USING (location_id);
```

10

```sql
SELECT job_title, AVG(salary)
FROM employees
NATURAL JOIN jobs
GROUP BY job_title;
```

11

```sql
SELECT job_title, first_name, salary-min_salary 'Salary - Min_Salary'
FROM employees
NATURAL JOIN jobs;
```

12

```sql
SELECT jh.* FROM job_history jh
JOIN employees e
ON (jh.employee_id = e.employee_id)
WHERE salary > 10000;
```

13

```sql
SELECT first_name, last_name, hire_date, salary,
(DATEDIFF(now(), hire_date))/365 Experience
FROM departments d JOIN employees e
ON (d.manager_id = e.employee_id)
WHERE (DATEDIFF(now(), hire_date))/365>15;
```