**DBMS(MySQL)**

create table employee\_info;

| **emp\_id** | **emp\_name** | **emp\_department** | **emp\_designation** | **emp\_salary** | **emp\_age** |
| --- | --- | --- | --- | --- | --- |
| 1 | Manish | 2 | HOD | 30000 | 38 |
| 2 | Pratham | 4 | Faculty | 22000 | 28 |
| 3 | Shivansh | 2 | Faculty | 20000 | 25 |
| 4 | Anmol | 4 | HOD | 25000 | 35 |
| 5 | Yogesh | 1 | Manager | 25000 | 27 |
| 6 | Deepak | 3 | Clerk | 12000 | 21 |
| 7 | Neeraj | 2 | Faculty | 27000 | 26 |
| 8 | Vikas | 4 | Faculty | 23000 | 21 |

**1. Display Employee Details upto 4 rows**

SELECT \* FROM employee\_info LIMIT 1,4;

**2. List all the employees whose salary is greater than or equal to 20000**

SELECT \* FROM employee\_info WHERE emp\_salary>=20000;

**3. Display Employee Name, Designation, Salary, Age of those employees whose salary >20000 and designation is HOD.**

SELECT emp\_name, emp\_designation, emp\_salary, emp\_age FROM employee\_info WHERE emp\_salary>20000 [AND](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.7/en/logical-operators.html#operator_and) emp\_designation='HOD';

**4. Display all the employees with their entire information whose department is either 2 or 4**

SELECT \* FROM employee\_info WHERE emp\_department=2 [or](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.7/en/logical-operators.html#operator_or) emp\_department=4;

SELECT \* FROM employee\_info WHERE emp\_department [IN](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.7/en/comparison-operators.html#function_in)(2,4);

**5. Display Employee Name,Designation,Salary of all the employees except HOD,Manageror Clerk**

SELECT emp\_name, emp\_designation, emp\_salary FROM employee\_info WHERE emp\_designation [NOT](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.7/en/logical-operators.html#operator_not) [IN](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.7/en/comparison-operators.html#function_in) ('HOD','Manager','Clerk');

**6. Display Employee Name,Designation,Salary of those Employees who are either HOD,Manager or Clerk**

SELECT emp\_name,emp\_designation,emp\_salary FROM employee\_info WHERE emp\_designation [IN](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.7/en/comparison-operators.html#function_in)('HOD','Manager','Clerk');

**7.List all the Employees with their entire Information where Salary is between 20000-30000**

SELECT \* FROM employee\_info WHERE emp\_salary BETWEEN 20000 [AND](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.7/en/logical-operators.html#operator_and) 30000;

**8. List all the Employees with their entire information whose Salary is not between 20000-30000**

SELECT \* FROM employee\_info WHERE emp\_salary [NOT](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.7/en/logical-operators.html#operator_not) BETWEEN 20000 [AND](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.7/en/logical-operators.html#operator_and) 30000;

**9. List all the Information of all the Employees whose name start with Alphabet Y**

SELECT \* FROM employee\_info WHERE emp\_name [LIKE](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.7/en/string-comparison-functions.html#operator_like) 'Y%';

**10. List all the Information of all the Employees where Employee Name ends with Alphabet h**

SELECT \* FROM employee\_info WHERE emp\_name [LIKE](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.7/en/string-comparison-functions.html#operator_like) '%h';

**11. List all the information of all the Employees whose Name ‘s Second Alphabet is a**

SELECT \* FROM employee\_info WHERE emp\_name [LIKE](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.7/en/string-comparison-functions.html#operator_like) '\_a%';

**12. List Employee Name in Ascending Order**

SELECT \* FROM employee\_info ORDER BY emp\_name;

SELECT \* FROM employee\_info ORDER BY emp\_name ASC;

**13. List Employee Name in Descending Order**

SELECT \* FROM employee\_info ORDER BY emp\_name DESC;

**14. Display all the employees order by Salary**

SELECT \* FROM employee\_info ORDER BY emp\_salary;

SELECT \* FROM employee\_info ORDER BY emp\_salary DESC;

**15. Count all the rows in Employee Table**

SELECT [COUNT](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.7/en/group-by-functions.html#function_count)(\*) FROM employee\_info;

**16. Display Departments of the Employees and they should not be repeated**

SELECT DISTINCT(emp\_department) FROM employee\_info;

**17. Find the Department wise Number of Employees**

SELECT emp\_department,[COUNT](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.7/en/group-by-functions.html#function_count)(\*) FROM employee\_info GROUP BY emp\_department;

**18. Find the Total Salary**

SELECT [SUM](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.7/en/group-by-functions.html#function_sum)(emp\_salary) FROM employee\_info;

SELECT [SUM](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.7/en/group-by-functions.html#function_sum)(emp\_salary) AS Total\_Salary FROM employee\_info;

**19. Find the Average Salary**

SELECT [AVG](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.7/en/group-by-functions.html#function_avg)(emp\_salary) AS Average\_Salary FROM employee\_info;

**20. To find the Department wise Average Salary**

SELECT emp\_department,[AVG](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.7/en/group-by-functions.html#function_avg)(emp\_salary) AS Average\_Salary FROM employee\_info GROUP BY emp\_department;

**21. To Find the Average Salary of Faculty Department wise**

SELECT emp\_department,[AVG](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.7/en/group-by-functions.html#function_avg)(emp\_salary) AS Average\_Salary FROM employee\_info WHERE emp\_designation = 'Faculty' group by emp\_department;

**22. To Find the Average Salary of Faculty**

SELECT [AVG](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.7/en/group-by-functions.html#function_avg)(emp\_salary) AS Average\_Salary FROM employee\_info WHERE emp\_designation = 'Faculty';

**23. To Find Maximum Salary of an Employee**

SELECT [MAX](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.7/en/group-by-functions.html#function_max)(emp\_salary) AS Max\_Salary FROM employee\_info;

**24. To find Minimum Salary of an Employee**

SELECT [MIN](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.7/en/group-by-functions.html#function_min)(emp\_salary) AS Max\_Salary FROM employee\_info;

**25. List all the Department with At Least more than one employee**

SELECT emp\_department, [COUNT](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.7/en/group-by-functions.html#function_count)(\*) FROM employee\_info GROUP BY emp\_department HAVING [COUNT](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.7/en/group-by-functions.html#function_count)(\*)>1;

**26. Calculate the Annual Salary of all Employee**

SELECT \*, 12\*emp\_salary AS Annual\_Salary FROM employee\_info;

**27. Find the AVG Annual Salary of all the Employees except Manager and Clerk in Each Department**

SELECT emp\_department, [AVG](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.7/en/group-by-functions.html#function_avg)(12\*emp\_salary) AS Avg\_Annual\_Salary from employee\_info where emp\_designation [NOT](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.7/en/logical-operators.html#operator_not) [IN](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.7/en/comparison-operators.html#function_in)('Manager','Clerk') GROUP BY emp\_department;

1. SELECT ABS(-2);
2. SELECT ceil(3.46); or [SELECT](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.7/en/select.html) ceiling(3.46);
3. SELECT floor(3.46);
4. SELECT round(5.927); or [SELECT](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.7/en/select.html) round(5.927,2);
5. SELECT[mod](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.7/en/mathematical-functions.html#function_mod)(29,3); **(Returns Remainder 29%3)**
6. SELECT pow(5,3); or [SELECT](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.7/en/select.html) power(5,3);  **(53)**
7. SELECT sqrt(49); **(72)**
8. SELECT ucase(emp\_name) FROM employee\_info;
9. SELECT lcase(emp\_name) FROM employee\_info;
10. SELECT [REPEAT](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.7/en/string-functions.html#function_repeat)('Faculty',3);
11. [SELECT](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.7/en/select.html) [REPLACE](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.7/en/replace.html)('www.google.com','w','ww'); **( 1 w replace with ww)**
12. SELECT reverse('ABCD');
13. SELECT length(Ltrim('hello'));
14. SELECT length(Rtrim('hello'));
15. SELECT emp\_name,length(emp\_name) FROM employee\_info;
16. SELECT emp\_name,[LEFT](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.7/en/string-functions.html#function_left)(emp\_name,2) FROM employee\_info;
17. SELECT emp\_name,[RIGHT](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.7/en/string-functions.html#function_right)(emp\_name,2) FROM employee\_info;
18. SELECT emp\_name,mid(emp\_name,1,3) AS Name FROM employee\_info; **(1-Location,3-No of Characters)**
19. SELECT curdate(); or [SELECT](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.7/en/select.html) [current\_date](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.7/en/date-and-time-functions.html#function_current_date)(); **(Returns current date in YYYY-MM-DD Format)**
20. SELECT adddate('2022-01-02',31);  **(Returns 2022-02-02, Months will be Changed)**
21. SELECT day('2022-10-28');
22. SELECT dayname('2022-10-28');
23. SELECT last\_day('2022-10-28'); **(Returns Last day of the Month)**
24. SELECT [date](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.7/en/date-and-time-types.html)('2022-10-28 05:25:00');  **(Extracts Only date part)**
25. SELECT [current\_time](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.7/en/date-and-time-functions.html#function_current_time)();
26. SELECT [time](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.7/en/date-and-time-types.html)('2022-10-28 05:25:00');
27. SELECT datediff('2022-10-28 05:25:00','1995-10-28 05:25:00'); **(Returns No of days 9862)**
28. SELECT date\_format('2022-10-28 05:25:00','%h'); **(Displays hours in two digits range 1-12)**
29. SELECT date\_format('2022-10-28 05:25:00','%H'); **(Displays hours in format of 24 range(00-23)**
30. SELECT date\_format('2022-10-28 05:25:00','%l'); **(Displays hours part in two digits range 1-12)**
31. SELECT date\_format('2022-10-28 05:25:00','%M'); **(Display Full month name-September)**
32. SELECT date\_format('2022-10-28 05:25:00','%m'); **(Display month in two digit-09)**
33. SELECT date\_format('2022-10-28 05:25:00','%b'); **(Display abbreviated month name-Sep)**
34. SELECT date\_format('2022-10-28 05:25:00','%c');  **(Display month without leading 0 like 9)**
35. SELECT date\_format('2022-10-28 05:25:00','%d');  **(Display day of month with leading 0 like 03)**
36. SELECT date\_format('2022-10-28 05:25:00','%D'); **(Attach suffix with day of month like 3rd)**
37. SELECT date\_format('2022-10-28 05:25:00','%e');  **(Display day part without leading 0 like 3)**
38. SELECT date\_format('2022-10-28 05:25:00','%Y'); **(Year Part in 4 Digits)**
39. SELECT date\_format('2022-10-28 05:25:00','%y'); **(Year part in 2 Digits)**
40. SELECT date\_format('2022-10-28 05:25:00','%W'); **( Display Full day name)**
41. SELECT date\_format('2022-10-28 05:25:00','%a'); **(Display abbreviated day name)**
42. SELECT date\_format('2022-10-28 05:25:00','%p'); **(Display time in AM and PM)**
43. SELECT date\_format('2022-10-28 05:25:00','%M %W %d %Y'); **(Display Multiple values like October Friday 28 2022)**
44. SELECT date\_format('2022-10-28 05:25:00','%i'); **(Display Minutes Part with leading zero like 08)**
45. SELECT month('2022-10-28'); **(Display 12)**
46. SELECT monthname('2022-10-28');**(Display December)**
47. SELECT now('2022-10-28'); **(Display Current date and time in the format of YYYY-MM-DD HH:MM:SS)**