**Experiment No : 4**

**SELECT QUERY AND AGGREGATE FUNCTIONS**

**Date : 20/9/2022**

**Aim:** To implement various select queries and aggregate functions in SQL.

**Theory:** The SELECT Statement in SQL is used to retrieve or fetch data from a database.

**Basic Syntax:**

SELECT column1,column2 FROM table\_name

column1 , column2: names of the fields of the table

table\_name: from where we want to fetch

**AGGREGATE FUNCTIONS IN SQL**

**COUNT Function**

COUNT (\*) is a special implementation of the COUNT function that returns the count of all the rows in a specified table.

**DISTINCT** Keyword

The DISTINCT keyword that allows us to omit duplicates from our results.

**MIN function**

The MIN function returns the smallest value in the specified table field.

**MAX function**

It **returns the largest value from the specified table field**.

**SUM function**

MySQL **SUM** function which **returns the sum of all the values in the specified column**. **SUM works on numeric fields only**. **Null values are excluded from the result returned.**

**AVG function**

MySQL  AVG function **returns the average of the values in a specified column**. Just like the SUM function, it **works only on numeric data types**.

**Consider the following table**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Emp\_id** | **Lastname** | **Firstname** | **Job\_id** | **Hire\_date** | **salary** | **Dept\_id** |
| 1122 | Gautam | Smita | 11 | 01/25/2018 | 45000 | 1 |
| 1123 | Naik | Sharvani | 15 | 04/20/2016 | 23000 | 3 |
| 1124 | Mehta | Arjun | 22 | 05/01/2015 | 20000 | 2 |
| 1125 | Mehta | Shivang | 32 | 10/03/2016 | 10000 | 1 |
| 1126 | Naik | Shiva | 15 | 08/04/2015 | 12000 | 3 |
| 1127 | palekar | Amrish | 32 | 03/05/2016 | 11000 | 4 |
| 1128 | Tople | Aarya | 13 | 09/03/2018 | 9000 | 2 |

**Queries to be executed :**

1. rename empid as id\_of\_the employee,lname as name\_of\_the\_employee,deptid as dept\_id from employee
2. display the distinct lnames of employee
3. display the lname and annual salary of employee
4. Display all employee whose salary is in range 2000 and 4000
5. Display the details of employees except working for department 10 or 30
6. Displaythe details of employee whose firstname starts with j
7. Display the details of employee whose firstname starts with j and ends with n
8. Display the details of employee whose firstname starts with j or k or c
9. Display details of employee working for deptid=3 and salary greater then 20000
10. Display the empid and lastname in ascending order
11. Display the empid and lastname in descending order
12. Display the first 3 rows of employee table
13. Display the first name in uppercase
14. Display the first name in lowercase
15. Display the first name where first alphabet is capital
16. Display average salary of employees
17. Display the sum of salary of employees
18. Display the details of employee with maximum salary
19. Display the details of employee with minimum salary
20. Write a query to find name of employee having jobid=32 and deptid =1
21. Write a query to find name of employees whose name contain ‘r’ as second character
22. Write a query to find name of employees whom name contain at least two ‘a’
23. Update some record from employee table
24. Delete any record from employee table

25.change the salary of employee where empid=1122

**Conclusion:**

**Exercise question(Not to be submitted in file)**

Bank database

Create the following tables Table Attributes

Customer- cid,cname,loc,sex,dob

Bank\_brn- bcode,bloc,bsate

Deposit -Dacno,dtype,ddate,damt

Loan- Lacno,ltype,ldate,lamt

Accounts\_in -Bcode,cid

Depositor- cid,dacno

Borrower- cid,lacno

(ii) Include necessary constraints.

(iii)Tables are created under the database ‘bank’

(iv) Display all the tables in bank database

(v) Describe the structure of all tables

2. Consider the database for a banking enterprise. Write the queries for the below questions.

(i) Insert at least 5 tuples in each table

(ii) Display the branch details

(iii)List the customers of ‘Mumbai’ city

(iv)List the male customers of ‘Kolkata’city

(v) List the state having more than one branch.

(vi)List the deposit schemes provided by the bank to the customers

(vii) Delete the entire content of any table

**Conclusion :**