**Question 3**

**Queries using aggregate functions(COUNT,AVG,MIN,MAX,SUM),Group by,Orderby.**

**Employee(E\_id, E\_name, Age, Salary)**

Create Employee table containing all Records E\_id, E\_name, Age, Salary.

Count number of employee names from Employee table

Find the Maximum age from Employee table.

Find the Minimum age from Employee table.

Find salaries of employee in Ascending Order.

Find grouped salaries of employees.

**Solution**

1. **Creating the Employee Table**

mysql> CREATE DATABASE COMPANY03;

Query OK, 1 row affected (0.09 sec)

mysql> USE COMPANY03;

Database changed

mysql> CREATE TABLE Employee (

-> E\_id INT PRIMARY KEY,

-> E\_name VARCHAR(255),

-> Age INT,

-> Salary DECIMAL(10, 2)

-> );

Query OK, 0 rows affected (1.00 sec)

mysql> DESC Employee;

+--------+---------------+------+-----+---------+-------+

| Field | Type | Null | Key | Default | Extra |

+--------+---------------+------+-----+---------+-------+

| E\_id | int | NO | PRI | NULL | |

| E\_name | varchar(255) | YES | | NULL | |

| Age | int | YES | | NULL | |

| Salary | decimal(10,2) | YES | | NULL | |

+--------+---------------+------+-----+---------+-------+

4 rows in set (0.00 sec)

1. **Populating the Employee Table with 12 Records**

**mysql> INSERT INTO Employee (E\_id, E\_name, Age, Salary)**

**-> VALUES**

**-> (1, 'Samarth', 30, 50000.00),**

**-> (2, 'Ramesh Kumar', 25, 45000.00),**

**-> (3, 'Seema Banu', 35, 60000.00),**

**-> (4, 'Dennis Anil', 28, 52000.00),**

**-> (5, 'Rehman Khan', 32, 58000.00),**

**-> (6, 'Pavan Gowda', 40, 70000.00),**

**-> (7, 'Shruthi Bhat', 27, 48000.00),**

**-> (8, 'Sandesh Yadav', 29, 51000.00),**

**-> (9, 'Vikram Acharya', 33, 62000.00),**

**-> (10, 'Praveen Bellad', 26, 46000.00),**

**-> (11, 'Sophia Mary', 31, 55000.00),**

**-> (12, 'Darshan Desai', 34, 63000.00);**

Query OK, 12 rows affected (0.14 sec)

Records: 12 Duplicates: 0 Warnings: 0

**mysql> SELECT \* FROM Employee;**

+------+----------------+------+----------+

| E\_id | E\_name | Age | Salary |

+------+----------------+------+----------+

| 1 | Samarth | 30 | 50000.00 |

| 2 | Ramesh Kumar | 25 | 45000.00 |

| 3 | Seema Banu | 35 | 60000.00 |

| 4 | Dennis Anil | 28 | 52000.00 |

| 5 | Rehman Khan | 32 | 58000.00 |

| 6 | Pavan Gowda | 40 | 70000.00 |

| 7 | Shruthi Bhat | 27 | 48000.00 |

| 8 | Sandesh Yadav | 29 | 51000.00 |

| 9 | Vikram Acharya | 33 | 62000.00 |

| 10 | Praveen Bellad | 26 | 46000.00 |

| 11 | Sophia Mary | 31 | 55000.00 |

| 12 | Darshan Desai | 34 | 63000.00 |

+------+----------------+------+----------+

12 rows in set (0.00 sec)

1. **Count Number of Employee Names**

**mysql> SELECT COUNT(E\_name) AS TotalEmployees**

**-> FROM Employee;**

+----------------+

| TotalEmployees |

+----------------+

| 12 |

+----------------+

1 row in set (0.00 sec)

1. **Find the Maximum Age**

**mysql> SELECT MAX(Age) AS MaxAge**

**-> FROM Employee;**

+--------+

| MaxAge |

+--------+

| 40 |

+--------+

1 row in set (0.01 sec)

**mysql> SELECT MAX(Age) AS MaxAge**

**-> FROM Employee;**

+--------+

| MaxAge |

+--------+

| 40 |

+--------+

1 row in set (0.01 sec)

1. **Find the Minimum Age**

**mysql> SELECT MIN(Age) AS MinAge**

**-> FROM Employee;**

+--------+

| MinAge |

+--------+

| 25 |

+--------+

1 row in set (0.00 sec)

1. **Find Salaries of Employees in Ascending Order**

**mysql> SELECT E\_name, Salary**

**-> FROM Employee**

**-> ORDER BY Salary ASC;**

+----------------+----------+

| E\_name | Salary |

+----------------+----------+

| Ramesh Kumar | 45000.00 |

| Praveen Bellad | 46000.00 |

| Shruthi Bhat | 48000.00 |

| Samarth | 50000.00 |

| Dennis Anil | 52000.00 |

| Sandesh Yadav | 52000.00 |

| Sophia Mary | 55000.00 |

| Rehman Khan | 58000.00 |

| Seema Banu | 62000.00 |

| Vikram Acharya | 62000.00 |

| Darshan Desai | 63000.00 |

| Pavan Gowda | 70000.00 |

+----------------+----------+

12 rows in set (0.00 sec)

1. **Find Grouped Salaries of Employees**

**mysql> SELECT Salary, COUNT(\*) AS EmployeeCount**

**-> FROM Employee**

**-> GROUP BY Salary;**

+----------+---------------+

| Salary | EmployeeCount |

+----------+---------------+

| 50000.00 | 1 |

| 45000.00 | 1 |

| 62000.00 | 2 |

| 52000.00 | 2 |

| 58000.00 | 1 |

| 70000.00 | 1 |

| 48000.00 | 1 |

| 46000.00 | 1 |

| 55000.00 | 1 |

| 63000.00 | 1 |

+----------+---------------+

10 rows in set (0.00 sec)

**In these queries:**

COUNT(E\_name) counts the number of non-NULL values in the E\_name column.

MAX(Age) finds the maximum age among the employees.

MIN(Age) finds the minimum age among the employees.

ORDER BY Salary ASC sorts the employees based on their salaries in ascending order.

GROUP BY Salary groups employees by their salaries and counts the number of employees for each salary.