

1. Create a table of A company tracks employees in a table named Employees:

columns (EmployeeID   Name   JoiningDate   Department   Salary)

2. and insert values .

3. Find employees who joined in 2024.

4. Calculate the total salary of all IT department employees.

5. Extract the month and year of each employee's joining date.

6. Count the number of employees in each department.

7. Find employees whose names are at least 6 characters long.

```
In [ ]: 1 CREATE TABLE Employees (  
2     EmployeeID INT PRIMARY KEY,  
3     Name VARCHAR(50),  
4     JoingDate DATE,  
5     Dept VARCHAR(10),  
6     Salary DECIMAL(10,2)  
7 );  
8  
9 INSERT INTO Employees (EmployeeID, Name, JoingDate, Dept, Salary)  
10 VALUES  
11 (1, 'John Doe', '2022-01-01', 'HR', 55000.00),  
12 (2, 'Jane Smith', '2022-02-15', 'IT', 65000.00),  
13 (3, 'James Brown', '2022-03-10', 'Finance', 70000.00),  
14 (4, 'Mary Johnson', '2022-04-25', 'Marketing', 60000.00),  
15 (5, 'Emily Davis', '2022-05-30', 'Sales', 55000.00),  
16 (6, 'Michael Wilson', '2022-06-20', 'HR', 58000.00),  
17 (7, 'David Taylor', '2022-07-18', 'IT', 68000.00),  
18 (8, 'Sarah Moore', '2022-08-02', 'Finance', 72000.00),  
19 (9, 'Robert Lee', '2022-09-12', 'Marketing', 61000.00),  
20 (10, 'Linda Harris', '2024-10-05', 'Sales', 54000.00);  
21  
22 -- WHO Joined in 2024  
23 SELECT *  
24 FROM  
25     Employees  
26 WHERE EXTRACT(YEAR FROM JoingDate) = 2024;  
27  
28  
29 -- SUM OF IT Salary  
30 SELECT SUM(Salary) AS SUM_IT  
31 FROM  
32     Employees  
33 WHERE Dept="IT";  
34  
35  
36 -- extract Year and Month  
37 SELECT EXTRACT(YEAR FROM JoingDate) AS YEAR, EXTRACT(MONTH FROM  
38 JoingDate) AS MONTH  
39 FROM  
40     Employees;  
41  
42 -- count for each dept  
43 SELECT COUNT(*) AS CNT ,Dept  
44 FROM  
45     Employees  
46 GROUP BY Dept;  
47  
48  
49 -- Name lenght >= 6  
50 SELECT Name  
51 FROM Employees  
52 WHERE LENGTH(Name) >= 6;
```

Output:

```
+-----+-----+-----+-----+
| EmployeeID | Name          | JoingDate   | Dept  | Salary  |
+-----+-----+-----+-----+
|          10 | Linda Harris | 2024-10-05 | Sales | 54000.00 |
+-----+-----+-----+-----+
```

```
+-----+
| SUM_IT |
+-----+
| 133000.00 |
+-----+
```

```
+-----+-----+
| YEAR  | MONTH |
+-----+-----+
| 2022  |      1 |
| 2022  |      2 |
| 2022  |      3 |
| 2022  |      4 |
| 2022  |      5 |
| 2022  |      6 |
| 2022  |      7 |
| 2022  |      8 |
| 2022  |      9 |
| 2024  |     10 |
```

```

+-----+-----+
| CNT | Dept      |
+-----+-----+
|  2  | HR        |
|  2  | IT        |
|  2  | Finance   |
|  2  | Marketing |
|  2  | Sales     |
+-----+-----+

```

```

+-----+
| Name      |
+-----+
| John Doe  |
| Jane Smith|
| James Brown|
| Mary Johnson|
| Emily Davis|
| Michael Wilson|
| David Taylor|
| Sarah Moore|
| Robert Lee|
| Linda Harris|
+-----+

```

Second one

Scenario: An e-commerce store tracks customer activity in a table named CustomerActivity:

CustomerID	CustomerName	LastLogin	TotalSpend
1	Alice	2024-11-01 12:00	1200
2	Bob	2024-11-10 15:30	800
3	Charlie	2024-11-15 09:20	1500

Questions:

Find customers who logged in after November 5, 2024.

Calculate the total spending by all customers.

Extract the day of the week from LastLogin for each customer.

Count the customers whose total spending is more than 1000.

Find the customer whose name contains the letter "a" and logged in before November 10, 2024

In [ ]:

```

1 CREATE TABLE Customers (
2     CustomerID INT PRIMARY KEY,
3     CustomerName VARCHAR(50),
4     LastLogin DATETIME,
5     TotalSpend DECIMAL(10, 2)
6 );
7
8 INSERT INTO Customers (CustomerID, CustomerName, LastLogin, TotalSpend)
9 VALUES
10 (1, 'Alice', '2024-11-01 12:00', 1200.00),
11 (2, 'Bob', '2024-11-10 15:30', 800.00),
12 (3, 'Charlie', '2024-11-15 09:20', 1500.00);
13
14 -- JOIN AFTER 2024 NOV 05
15 SELECT *
16 FROM Customers
17 WHERE DATEDIFF(LastLogin, '2024-11-05') > 0;
18
19 -- TOTAL SPEND
20 SELECT SUM(TotalSpend) AS TOTAL
21 FROM Customers;
22
23 -- DAY OF WEEK 1 - SUNDAY 2 MONDAY
24 SELECT DAYOFWEEK(LastLogin) AS DAY_WEEK
25 FROM
26     Customers;
27
28 -- COUNT , SPEND > 1000
29 SELECT COUNT(*)
30 FROM
31     Customers
32 WHERE TotalSpend > 1000;
33
34 -- CONTAIN 'A' AND BEFORE NOV 10 2024
35 SELECT *
36 FROM
37     Customers
38 WHERE LOCATE('a', CustomerName) AND DATEDIFF(LastLogin, '2024-11-10') <
39 0;

```

Output:

```

+-----+-----+-----+-----+
| CustomerID | CustomerName | LastLogin          | TotalSpend |
+-----+-----+-----+-----+
|          2 | Bob          | 2024-11-10 15:30:00 |      800.00 |
|          3 | Charlie      | 2024-11-15 09:20:00 |     1500.00 |
+-----+-----+-----+-----+

```

+-----+	
TOTAL	
+-----+	
3500.00	
+-----+	
+-----+	
DAY_WEEK	
+-----+	
6	
1	
6	
+-----+	
+-----+	
COUNT(*)	
+-----+	
2	
+-----+	

+-----+			
CustomerID	CustomerName	LastLogin	TotalSpend
+-----+			
1	Alice	2024-11-01 12:00:00	1200.00
+-----+			