PROJECT SQL FILE

TABLES CREATION

- **DEPARTMENT TABLE CREATION**

```
CREATE TABLE Department(
DepartmentID INT PRIMARY KEY ,
DepartmentName VARCHAR(100) NOT NULL
);
```

- **EMPLOYEE TABLE CREATION**

```
CREATE TABLE Employee(
EmployeeID INT PRIMARY KEY ,
Name VARCHAR(100) NOT NULL,
DeptID INT,
Salary DECIMAL(10,2),
HireDate Date
FOREIGN KEY (DeptID) references Department(DepartmentID)
);
```

- **SALES TABLE CREATION**

```
CREATE TABLE Sales(
SalesID INT PRIMARY KEY ,
EmpID INT,
SaleAmount DECIMAL(10,2),
SaleDate Date
FOREIGN KEY (EmpID) references Employee(EmployeeID)
);
```

INSERTING SAMPLE DATA

1) DEPARTMENT DATA

```
INSERT INTO Department (DepartmentID, DepartmentName) Values
(101, 'HR'),
(102, 'Marketing'),
(103, 'IT'),
(104, 'Finance'  ),
 (105, 'Sales');
```

	DepartmentID	DepartmentName
1	101	HR
2	102	Marketing
3	103	IT
4	104	Finance
5	105	Sales

2) EMPLOYEE DATA

```
INSERT INTO Employee (EmployeeID, Name, DeptID, Salary, HireDate) VALUES
(01, 'Ahmed',  103, 5500.00,  '2020-09-23'), --start with A and is in IT
(02, 'Aaisha', 105, 7000.00,  '2024-02-03'), --start with A and is in sales
(03, 'Halima', 104, 8000.00,  '2019-06-02'),
(04, 'Javeria', 101, 3000.00,'2017-07-29'),
(05, 'Rabeaa', 102, 4500.00,  '2022-03-22'),
(06, 'Cashmala',103, 9000.00,'2023-04-07'), --start with C and is in IT
(07, 'Omer',   102, 2500.00,  '2016-05-09'),
(08, 'Tehreem', 103, 6500.00,'2015-10-11'),
(09, 'Cemal',  104, 5000.00,  '2021-11-05'),
(10, 'Sobia',  105, 3500.00,  '2016-12-08'),
(11, 'Mariyam', 101, 8500.00,'2021-01-16'),
(12, 'Iqbal',  102, 7500.00,  '2022-02-18'),
(13, 'Saira',  103, 9500.00,  '2023-03-26'),
(14, 'Madiha', 104, 4900.00,  '2024-04-30'),
(15, 'Saad',   105, 10000.00, '2025-12-31'),
(16, 'Burhan', 101, 12000.00, '2018-05-02'),
(17, 'Emaan',  102, 15000.00, '2017-06-20'),
(18, 'Zobia',  103, 16500.00, '2019-07-01'),
(19, 'Alishba', 105, 4000.00,'2025-08-17'),
(20, 'Danish', 104, 11000.00, '2025-09-19');
```

	EmployeeID	Name	DeptID	Salary	HireDate
1	1	Ahmed	103	5500.00	2020-09-23
2	2	Aaisha	105	7000.00	2024-02-03
3	3	Halima	104	8000.00	2019-06-02
4	4	Javeria	101	3000.00	2017-07-29
5	5	Rabeaa	102	4500.00	2022-03-22
6	6	Cashmala	103	9000.00	2023-04-07
7	7	Omer	102	2500.00	2016-05-09
8	8	Tehreem	103	6500.00	2015-10-11
9	9	Cemal	104	5000.00	2021-11-05
10	10	Sobia	105	3500.00	2016-12-08
11	11	Mariyam	101	8500.00	2021-01-16
12	12	Iqbal	102	7500.00	2022-02-18
13	13	Saira	103	9500.00	2023-03-26
14	14	Madiha	104	4900.00	2024-04-30
15	15	Saad	105	10000.00	2025-12-31
16	16	Burhan	101	12000.00	2018-05-02
17	17	Emaan	102	15000.00	2017-06-20
18	18	Zobia	103	16500.00	2019-07-01
19	19	Alishba	105	4000.00	2025-08-17
20	20	Danish	104	11000.00	2025-09-19

3) SALES DATA

```
   INSERT INTO Sales (SalesID, EmpID, SaleAmount, SaleDate) VALUES
(1, 13, 8000.00, '2023-05-01'),
(2, 13, 7500.00, '2023-06-10'),
(3, 13, 7000.00, '2023-07-15'), --Saira exceeds 22,500

(4, 06, 9500.00, '2023-01-01'),
(5, 06, 7000.00, '2023-02-01'),
(6, 06, 6500.00, '2023-03-01'), --Cashmala sales decrease from prev month

(7, 11, 5500.00, '2022-08-05'),
(8, 11, 7000.00, '2022-09-12'),
(9, 11, 8500.00, '2022-10-20'), --Mariyam Sales increasing

(10, 1, 6000.00, '2023-03-20'), -- Ahmed (IT)
(11, 5, 7500.00, '2023-04-10'), -- Rabeaa (Marketing)
(12, 10, 4800.00, '2023-06-25'), -- Sobia (Sales)
(13, 15, 11000.00, '2024-01-15'), -- Saad (Sales)
(14, 18, 9800.00, '2024-02-20'), -- Zobia (IT)
(15, 8, 12000.00, '2024-03-10'), -- Tehreem (IT)
(16, 2, 9000.00, '2024-04-25'), -- Aaisha (Marketing)
(17, 9, 6700.00, '2024-05-18'), -- Cemal (Finance)
(18, 20, 8600.00, '2024-06-30'); -- Danish (Finance)
```

	SalesID	EmpID	SaleAmount	SaleDate
1	1	13	8000.00	2023-05-01
2	2	13	7500.00	2023-06-10
3	3	13	7000.00	2023-07-15
4	4	6	9500.00	2023-01-01
5	5	6	7000.00	2023-02-01
6	6	6	6500.00	2023-03-01
7	7	11	5500.00	2022-08-05
8	8	11	7000.00	2022-09-12
9	9	11	8500.00	2022-10-20
10	10	1	6000.00	2023-03-20
11	11	5	7500.00	2023-04-10
12	12	10	4800.00	2023-06-25
13	13	15	11000.00	2024-01-15
14	14	18	9800.00	2024-02-20
15	15	8	12000.00	2024-03-10
16	16	2	9000.00	2024-04-25
17	17	9	6700.00	2024-05-18
18	18	20	8600.00	2024-06-30

BASIC QUERIES

❖ QUERY 1: NAME AND SALARY OF EMPLOYEES WITH SALARY > 5000

```
SELECT name AS Name, salary
FROM Employee
WHERE Salary>5000;
```

OUTPUT

	Name	salary
1	Ahmed	5500.00
2	Aaisha	7000.00
3	Halima	8000.00
4	Cashmala	9000.00
5	Tehreem	6500.00
6	Mariyam	8500.00
7	Iqbal	7500.00
8	Saira	9500.00
9	Saad	10000...
10	Burhan	12000...
11	Emaan	15000...
12	Zobia	16500...
13	Danish	11000...

❖ QUERY 2: RETRIEVE EMPLOYEES HIRED AFTER JANUARY 1, 2020, WHO EARN MORE THAN 4500

```
SELECT name AS Name, HireDate, Salary
FROM Employee
WHERE HireDate > '2020-01-01' AND Salary>4500;
```

OUTPUT

	Name	HireDate	Salary
1	Ahmed	2020-09-23	5500.00
2	Aaisha	2024-02-03	7000.00
3	Cashmala	2023-04-07	9000.00
4	Cemal	2021-11-05	5000.00
5	Mariyam	2021-01-16	8500.00
6	Iqbal	2022-02-18	7500.00
7	Saira	2023-03-26	9500.00
8	Madiha	2024-04-30	4900.00
9	Saad	2025-12-31	10000.00
10	Danish	2025-09-19	11000.00

❖ QUERY3: RETRIEVE EMPLOYEES WHOSE NAMES START WITH 'A' OR 'C' AND WHO BELONG TO THE SALES OR IT DEPARTMENT.

```
Select Name, DepartmentName as Department
FROM EMPLOYEE AS e
JOIN Department AS d
ON  e.DeptID = d.DepartmentID
WHERE (Name  LIKE 'A%' OR Name  LIKE 'C%' )
AND deptID IN(103,105);
```

OUTPUT

	Name	Department
1	Ahmed	IT
2	Aaisha	Sales
3	Cashmala	IT
4	Alishba	Sales

❖ QUERY 4: FIND THE TOTAL SALARY PAID FOR EACH DEPARTMENT.

```
SELECT SUM(e.Salary) AS Total_Salary_paid , d.DepartmentName AS Department
FROM Employee AS e
JOIN Department AS d
ON  e.DeptID = d.DepartmentID
GROUP BY DepartmentName
ORDER BY Total_Salary_paid DESC;
```

OUTPUT

	Total_Salary_paid	Department
1	47000.00	IT
2	29500.00	Marketing
3	28900.00	Finance
4	24500.00	Sales
5	23500.00	HR

❖ QUERY 5: COUNT THE NUMBER OF EMPLOYEES IN EACH DEPARTMENT.

```
SELECT COUNT( EmployeeID) AS Number_of_Employees, d.DepartmentName AS
Department
FROM Employee AS e
JOIN Department AS d
ON  e.DeptID = d.DepartmentID
 GROUP BY DepartmentName
 ORDER BY Number_of_Employees DESC;
```

	Number_of_Employees	Department
1	5	IT
2	4	Marketing
3	4	Sales
4	4	Finance
5	3	HR

❖ QUERY 6: FIND THE AVERAGE SALARY FOR EACH DEPARTMENT, BUT ONLY FOR DEPARTMENTS HAVING MORE THAN ONE EMPLOYEE.

```
SELECT AVG(e.Salary) AS Avg_Salary, d.DepartmentName AS Department
FROM Employee as e
JOIN Department as d
ON e.DeptID = d.DepartmentID
GROUP BY DepartmentName
HAVING COUNT(EmployeeID) > 1
ORDER BY Avg_Salary DESC;
```

OUTPUT

	Avg_Salary	Department
1	9400.000000	IT
2	7833.333333	HR
3	7375.000000	Marketing
4	7225.000000	Finance
5	6125.000000	Sales

❖ QUERY 7: FIND DEPARTMENTS WHERE THE TOTAL SALARY EXCEEDS 10,000

```
SELECT d.DepartmentName AS Department, SUM(e.Salary) AS Total_Salary
FROM Department AS d
JOIN Employee AS e
ON d.DepartmentID = e.DeptID
GROUP BY DepartmentName
HAVING SUM(e.Salary) > 10000;
```

OUTPUT

	Department	Total_Salary
1	Finance	28900.00
2	HR	23500.00
3	IT	47000.00
4	Marketing	29500.00
5	Sales	24500.00

❖ QUERY 8: FIND EMPLOYEES WHO HAVE MADE MORE THAN ONE SALE.

```
SELECT e.name AS Name,  COUNT(s.SalesID) AS Number_of_Sales
FROM Employee AS e
JOIN Sales AS s
ON e.EmployeeID = s.EmpID
GROUP BY e.name
HAVING COUNT(DISTINCT s.SalesID) >1;
```

OUTPUT

	Name	Number_of_Sales
1	Cashmala	3
2	Mariyam	3
3	Saira	3

❖ QUERY 9: FIND EMPLOYEES WHOSE TOTAL SALES EXCEED 20,000.

```
SELECT e.name AS Name, SUM(s.SaleAmount) AS Total_Sales
FROM Employee AS e
JOIN Sales AS s
ON e.EmployeeID = s.EmpID
GROUP BY e.name
HAVING SUM(s.SaleAmount) > 20000
ORDER BY Total_Sales DESC;
```

OUTPUT

	Name	Total_Sales
1	Cashmala	23000.00
2	Saira	22500.00
3	Mariyam	21000.00

❖ QUERY 10: RETRIEVE EMPLOYEE NAMES ALONG WITH THEIR DEPARTMENT NAMES.

```
SELECT e.name AS Employee_Name, d.DepartmentName AS Department
FROM Employee AS e
JOIN Department AS d
ON e.DeptID = d.DepartmentID
ORDER BY e.name ASC;
```

	Employee_Name	Department
1	Aaisha	Sales
2	Ahmed	IT
3	Alishba	Sales
4	Burhan	HR
5	Cashmala	IT
6	Cemal	Finance
7	Danish	Finance
8	Emaan	Marketing
9	Halima	Finance
10	Iqbal	Marketing
11	Javeria	HR
12	Madiha	Finance
13	Mariyam	HR
14	Omer	Marketing
15	Rabeaa	Marketing
16	Saad	Sales
17	Saira	IT
18	Sobia	Sales
19	Tehreem	IT
20	Zobia	IT

❖ QUERY 11: RETRIEVE ALL SALES DETAILS, INCLUDING EMPLOYEE NAMES

```
SELECT e.name AS Name, s.*
FROM Sales AS s
JOIN Employee AS e
ON s.EmpID = e.EmployeeID;
```

	Name	SalesID	EmpID	SaleAmount	SaleDate
1	Saira	1	13	8000.00	2023-05-01
2	Saira	2	13	7500.00	2023-06-10
3	Saira	3	13	7000.00	2023-07-15
4	Cashmala	4	6	9500.00	2023-01-01
5	Cashmala	5	6	7000.00	2023-02-01
6	Cashmala	6	6	6500.00	2023-03-01
7	Mariyam	7	11	5500.00	2022-08-05
8	Mariyam	8	11	7000.00	2022-09-12
9	Mariyam	9	11	8500.00	2022-10-20
10	Ahmed	10	1	6000.00	2023-03-20
11	Rabeaa	11	5	7500.00	2023-04-10
12	Sobia	12	10	4800.00	2023-06-25
13	Saad	13	15	11000.00	2024-01-15
14	Zobia	14	18	9800.00	2024-02-20
15	Tehreem	15	8	12000.00	2024-03-10
16	Aaisha	16	2	9000.00	2024-04-25
17	Cemal	17	9	6700.00	2024-05-18
18	Danish	18	20	8600.00	2024-06-30

❖ QUERY 12: FIND THE TOTAL SALES MADE BY EACH DEPARTMENT

```
SELECT SUM(s.SaleAmount) AS Total_Sales, d.DepartmentName AS Department
FROM Sales AS s
JOIN Employee AS e ON e.EmployeeID = s.EmpID
JOIN Department AS d  ON e.deptID = d.DepartmentID
GROUP BY d.DepartmentName
ORDER BY Total_Sales DESC ;
```

OUTPUT

	Total_Sales	Department
1	73300.00	IT
2	24800.00	Sales
3	21000.00	HR
4	15300.00	Finance
5	7500.00	Marketing

❖ QUERY 13: SHOW EACH EMPLOYEE'S SALARY ALONG WITH THE AVERAGE SALARY ACROSS ALL EMPLOYEES

```
SELECT e.name , e.Salary, (SELECT AVG(Salary) FROM Employee)AS
Avg_Salary_of_Employees
FROM Employee AS e
ORDER BY e.salary ;
```

OUTPUT

	name	Salary	Avg_Salary_of_Employees
1	Omer	2500.00	7670.000000
2	Javeria	3000.00	7670.000000
3	Sobia	3500.00	7670.000000
4	Alishba	4000.00	7670.000000
5	Rabeaa	4500.00	7670.000000
6	Madiha	4900.00	7670.000000
7	Cemal	5000.00	7670.000000
8	Ahmed	5500.00	7670.000000
9	Tehreem	6500.00	7670.000000
10	Aaisha	7000.00	7670.000000
11	Iqbal	7500.00	7670.000000
12	Halima	8000.00	7670.000000
13	Mariyam	8500.00	7670.000000
14	Cashmala	9000.00	7670.000000
15	Saira	9500.00	7670.000000
16	Saad	10000...	7670.000000
17	Danish	11000...	7670.000000
18	Burhan	12000...	7670.000000
19	Emaan	15000...	7670.000000
20	Zobia	16500...	7670.000000

❖ QUERY 14: RANK EMPLOYEES BY SALARY IN DESCENDING ORDER (HIGHEST TO LOWEST)

```
SELECT Name, Salary,
RANK() OVER (ORDER BY Salary DESC) AS Salary_Rank
FROM Employee;
```

	Name	Salary	Salary_Rank
1	Zobia	16500.00	1
2	Emaan	15000.00	2
3	Burhan	12000.00	3
4	Danish	11000.00	4
5	Saad	10000.00	5
6	Saira	9500.00	6
7	Cashmala	9000.00	7
8	Mariyam	8500.00	8
9	Halima	8000.00	9
10	Iqbal	7500.00	10
11	Aaisha	7000.00	11
12	Tehreem	6500.00	12
13	Ahmed	5500.00	13
14	Cemal	5000.00	14
15	Madiha	4900.00	15
16	Rabeaa	4500.00	16
17	Alishba	4000.00	17
18	Sobia	3500.00	18
19	Javeria	3000.00	19
20	Omer	2500.00	20

❖ QUERY 15: SHOW EACH EMPLOYEE'S SALARY AND THE CUMULATIVE TOTAL SALARY ORDERED BY HIRE DATE.

```
SELECT Name, HireDate, Salary,
SUM(Salary) OVER (ORDER BY HireDate) AS Cumulative_Total
FROM Employee;
```

	Name	HireDate	Salary	Cumulative_Total
1	Tehreem	2015-10-11	6500.00	6500.00
2	Omer	2016-05-09	2500.00	9000.00
3	Sobia	2016-12-08	3500.00	12500.00
4	Emaan	2017-06-20	15000.00	27500.00
5	Javeria	2017-07-29	3000.00	30500.00
6	Burhan	2018-05-02	12000.00	42500.00
7	Halima	2019-06-02	8000.00	50500.00
8	Zobia	2019-07-01	16500.00	67000.00
9	Ahmed	2020-09-23	5500.00	72500.00
10	Mariyam	2021-01-16	8500.00	81000.00
11	Cemal	2021-11-05	5000.00	86000.00
12	Iqbal	2022-02-18	7500.00	93500.00
13	Rabeaa	2022-03-22	4500.00	98000.00
14	Saira	2023-03-26	9500.00	107500.00
15	Cashm...	2023-04-07	9000.00	116500.00
16	Aaisha	2024-02-03	7000.00	123500.00
17	Madiha	2024-04-30	4900.00	128400.00
18	Alishba	2025-08-17	4000.00	132400.00
19	Danish	2025-09-19	11000.00	143400.00
20	Saad	2025-12-31	10000.00	153400.00

❖ QUERY 16: RANK EMPLOYEES BASED ON THEIR TOTAL SALES, WITH THE HIGHEST SALES GETTING RANK 1

```
SELECT e.Name, SUM(s.SaleAmount) AS total_Sales,
RANK() OVER (ORDER BY SUM(s.SaleAmount) DESC) AS Sales_Rank
FROM Employee AS e
JOIN Sales AS s
ON e.EmployeeID = s.EmpID
GROUP BY e.name;
```

	Name	total_Sales	Sales_Rank
1	Cashmala	23000.00	1
2	Saira	22500.00	2
3	Mariyam	21000.00	3
4	Tehreem	12000.00	4
5	Saad	11000.00	5
6	Zobia	9800.00	6
7	Aaisha	9000.00	7
8	Danish	8600.00	8
9	Rabeaa	7500.00	9
10	Cemal	6700.00	10
11	Ahmed	6000.00	11
12	Sobia	4800.00	12

❖ QUERY 17: IDENTIFY EMPLOYEES WHOSE SALES IN THE CURRENT MONTH ARE LOWER THAN THE PREVIOUS MONTH'S SALES

```
WITH MonthlySales AS (
    SELECT
        s.EmpID,
              e.Name AS Employee_Name,
        YEAR(s.SaleDate) AS Year,
        MONTH(s.SaleDate) AS Month,
        SUM(s.SaleAmount) AS current_sales,
        LAG(SUM(s.SaleAmount)) OVER (PARTITION BY s.EmpID ORDER BY YEAR(s.SaleDate),
MONTH(s.SaleDate)) AS previous_sales
    FROM Sales AS s
       JOIN Employee AS e
       ON s.EmpID = e.EmployeeID
    GROUP BY EmpID, e.Name,  YEAR(s.SaleDate), MONTH(s.SaleDate)
)

SELECT EmpID, Employee_Name, Year, Month, current_sales, previous_sales
FROM MonthlySales
WHERE current_sales < previous_sales;
```

	EmpID	Employee_Name	Year	Month	current_sales	previous_sales
1	6	Cashmala	2023	2	7000.00	9500.00
2	6	Cashmala	2023	3	6500.00	7000.00
3	13	Saira	2023	6	7500.00	8000.00
4	13	Saira	2023	7	7000.00	7500.00

STORED PROCEDURES AND CATEGORIES

➢ QUERY 18: CREATE A STORED PROCEDURE TO GET ALL EMPLOYEES FROM A SPECIFIC DEPARTMENT.

```
ALTER PROCEDURE EmployeeFromDept
@Dept NVARCHAR(50)

AS
BEGIN
 SELECT e.* , d.DepartmentName AS Department
 FROM Department as d
 JOIN Employee AS e
 ON e.DeptID = d.DepartmentID
 WHERE d.DepartmentName = @Dept;
 END
GO

EXEC EmployeeFromDept  @Dept = 'IT';
EXEC EmployeeFromDept  @Dept = 'Finance';
EXEC EmployeeFromDept  @Dept = 'Marketing';
EXEC EmployeeFromDept  @Dept = 'Sales';
EXEC EmployeeFromDept  @Dept = 'HR';
```

	EmployeeID	Name	DeptID	Salary	HireDate	Department
1	1	Ahmed	103	5500.00	2020-09-23	IT
2	6	Cashmala	103	9000.00	2023-04-07	IT
3	8	Tehreem	103	6500.00	2015-10-11	IT
4	13	Saira	103	9500.00	2023-03-26	IT
5	18	Zobia	103	16500.00	2019-07-01	IT

	EmployeeID	Name	DeptID	Salary	HireDate	Department
1	3	Halima	104	8000.00	2019-06-02	Finance
2	9	Cemal	104	5000.00	2021-11-05	Finance
3	14	Madiha	104	4900.00	2024-04-30	Finance
4	20	Danish	104	11000.00	2025-09-19	Finance

	EmployeeID	Name	DeptID	Salary	HireDate	Department
1	5	Rabeaa	102	4500.00	2022-03-22	Marketing
2	7	Omer	102	2500.00	2016-05-09	Marketing
3	12	Iqbal	102	7500.00	2022-02-18	Marketing
4	17	Emaan	102	15000.00	2017-06-20	Marketing

	EmployeeID	Name	DeptID	Salary	HireDate	Department
1	2	Aaisha	105	7000.00	2024-02-03	Sales
2	10	Sobia	105	3500.00	2016-12-08	Sales
3	15	Saad	105	10000.00	2025-12-31	Sales
4	19	Alishba	105	4000.00	2025-08-17	Sales

	EmployeeID	Name	DeptID	Salary	HireDate	Department
1	4	Javeria	101	3000.00	2017-07-29	HR
2	11	Mariyam	101	8500.00	2021-01-16	HR
3	16	Burhan	101	12000.00	2018-05-02	HR

➢ QUERY 19: CREATE A STORED PROCEDURE TO GET EMPLOYEES WITH SALARIES GREATER THAN A GIVEN VALUE.

```
ALTER PROCEDURE EmployeeWithSalaries
@SalaryValue DECIMAL(10,2)

AS
BEGIN
 SELECT e.Name, e.Salary
 FROM Employee AS e
 WHERE Salary > @SalaryValue;
 END
GO

EXEC EmployeeWithSalaries @SalaryValue = 10000.00; --works to find any value greater
than this given value
```

	Name	Salary
1	Burhan	12000.00
2	Emaan	15000.00
3	Zobia	16500.00
4	Danish	11000.00

➢ QUERY 20: CREATE A STORED PROCEDURE TO CALCULATE TOTAL SALES BY A GIVEN EMPLOYEE.

```
ALTER PROCEDURE EmployeeTotalSales
@EmployeeName VARCHAR(100)

AS
BEGIN
SELECT e.Name, SUM(SaleAmount) AS Total_Sales
FROM  Sales AS s
JOIN Employee AS e
ON s.EmpID = e.EmployeeID
WHERE e.Name= @EmployeeName
GROUP BY e.Name;
END
GO

EXEC EmployeeTotalSales @EmployeeName = 'Aaisha';
EXEC EmployeeTotalSales @EmployeeName = 'Saira'; --.. so on works for the names in Sales Table
```

	Name	Total_Sales
1	Aaisha	9000.00

	Name	Total_Sales
1	Saira	22500.00

	Name	Total_Sales
1	Rabeaa	7500.00

	Name	Total_Sales
1	Zobia	9800.00

	Name	Total_Sales
1	Cemal	6700.00

	Name	Total_Sales
1	Danish	8600.00

➢ QUERY 21: CATEGORIZE EMPLOYEES BASED ON SALARY AS LOW, MEDIUM, OR HIGH.

```
SELECT e.Name, e.Salary,
CASE
WHEN e.Salary < 5000 THEN 'Low'
WHEN e.Salary >= 5000 AND e.Salary < 10000 THEN 'Medium'
ELSE 'High'
END AS Salary_Status
FROM Employee AS e
ORDER BY Salary ASC;
```

	Name	Salary	Salary_Status
1	Omer	2500.00	Low
2	Jave...	3000.00	Low
3	Sobia	3500.00	Low
4	Alish...	4000.00	Low
5	Rab...	4500.00	Low
6	Mad...	4900.00	Low
7	Cemal	5000.00	Medium
8	Ahm...	5500.00	Medium
9	Tehr...	6500.00	Medium
10	Aais...	7000.00	Medium
11	Iqbal	7500.00	Medium
12	Hali...	8000.00	Medium
13	Mari...	8500.00	Medium
14	Cas...	9000.00	Medium
15	Saira	9500.00	Medium
16	Saad	10000...	High
17	Dani...	11000...	High
18	Burh...	12000...	High
19	Ema...	15000...	High
20	Zobia	16500...	High

➢ QUERY 22: CATEGORIZE SALES BASED ON AMOUNT AS LOW, MEDIUM, OR HIGH

```
SELECT s.SaleAmount AS Sales,
CASE
WHEN S.SaleAmount < 5000 THEN 'Low'
WHEN S.SaleAmount >= 5000 AND S.SaleAmount < 10000 THEN 'Medium'
ELSE 'High'
END AS Sales_Status
FROM Sales AS s
ORDER BY Sales ASC;
```

	Sales	Sales_Status
1	4800.00	Low
2	5500.00	Medium
3	6000.00	Medium
4	6500.00	Medium
5	6700.00	Medium
6	7000.00	Medium
7	7000.00	Medium
8	7000.00	Medium
9	7500.00	Medium
10	7500.00	Medium
11	8000.00	Medium
12	8500.00	Medium
13	8600.00	Medium
14	9000.00	Medium
15	9500.00	Medium
16	9800.00	Medium
17	11000....	High
18	12000....	High

➢ QUERY 23: CATEGORIZE EMPLOYEES BASED ON HIRE DATE.

```
SELECT Name AS Name, HireDate,
CASE
WHEN HireDate < '2018-01-01' THEN 'Senior Level'
WHEN HireDate BETWEEN '2018-01-01' AND '2021-12-31' THEN 'Mid Level'
ELSE 'Junior Level'
END AS Employee_Status
FROM Employee
ORDER BY HireDate ASC;
```

	Name	HireDate	Employee_Status
1	Tehreem	2015-10-11	Senior Level
2	Omer	2016-05-09	Senior Level
3	Sobia	2016-12-08	Senior Level
4	Emaan	2017-06-20	Senior Level
5	Javeria	2017-07-29	Senior Level
6	Burhan	2018-05-02	Mid Level
7	Halima	2019-06-02	Mid Level
8	Zobia	2019-07-01	Mid Level
9	Ahmed	2020-09-23	Mid Level
10	Mariyam	2021-01-16	Mid Level
11	Cemal	2021-11-05	Mid Level
12	Iqbal	2022-02-18	Junior Level
13	Rabeaa	2022-03-22	Junior Level
14	Saira	2023-03-26	Junior Level
15	Cashm...	2023-04-07	Junior Level
16	Aaisha	2024-02-03	Junior Level
17	Madiha	2024-04-30	Junior Level
18	Alishba	2025-08-17	Junior Level
19	Danish	2025-09-19	Junior Level
20	Saad	2025-12-31	Junior Level

INSIGHTS

- **IT sector is paid the highest salary of 47,000 and HR the lowest of 23,500.**
- **Highest number of employees work in IT (5) department and lowest in HR(3).**
- **IT made the highest sales of 73,300 and Marketing the lowest sales of 7,500.**
- **Zobia is paid the highest salary of 16,500 and Omer the lowest of 2,500.**
- **Cashmala made highest Sales of 23,000 and Sobia lowest sales of 4,800.**
- **Cashmala and Saira have sales lower than previous month and if we calculate the percentage change then we can see that Cashmala has sudden drop of approx -26% and Saira of -6%.**
- **Employees being paid Medium Salary Amount are more in company.**
- **Higher number of Junior Level Employees in the Company.**

THE END