```sql
CREATE TABLE Employee (
EmpID int NOT NULL,
EmpName varchar(20),
Gender varchar(20),
Salary int,
City varchar(20) );

INSERT INTO Employee
VALUES (1, 'Arjun', 'M', 75000, 'Pune'),
(2, 'Ekadanta', 'M', 125000, 'Bangalore'),
(3, 'Lalita', 'F', 150000 , 'Mathura'),
(4, 'Madhav', 'M', 250000 , 'Delhi'),
(5, 'Visakha', 'F', 120000 , 'Mathura');

SELECT * FROM Employee;
```

EmpID	EmpName	Gender	Salary	City
1	Arjun	M	75000	Pune
2	Ekadanta	M	125000	Bangalore
3	Lalita	F	150000	Mathura
4	Madhav	M	250000	Delhi
5	Visakha	F	120000	Mathura

Q1: Find the list of employees whose salary ranges between 2L to 3L (use Employee table)

```sql
SELECT EmpName, Salary
FROM Employee
WHERE Salary BETWEEN 200000 AND 300000;

#OR

SELECT EmpName, Salary
FROM Employee
WHERE Salary > 200000 AND Salary < 300000;
```

Output :

EmpName	Salary
Madhav	250000

Q2: Retrieve the list of employees from the same city

```
SELECT *
FROM Employee E1, Employee E2
WHERE E1.City = E2.City AND E1.EmpID != E2.EmpID;
```

Output :

EmpID	EmpName	Gender	Salary	City	EmpID	EmpName	Gender	Salary	City
5	Visakha	F	120000	Mathura	3	Lalita	F	150000	Mathura
3	Lalita	F	150000	Mathura	5	Visakha	F	120000	Mathura

```
SELECT E1.EmpName, E1.City
FROM Employee E1, Employee E2
WHERE E1.City = E2.City AND E1.EmpID != E2.EmpID;
```

Output :

EmpName	City
Visakha	Mathura
Lalita	Mathura

Q3. Find all the NULL values in the Employee table

```
SELECT * FROM Employee
WHERE EmpID IS NULL;
```

Output:

EmpID	EmpName	Gender	Salary	City

Q4. Find the cumulative sum of employee's salary

```
SELECT EmpID, EmpName, Salary, SUM(Salary) OVER(ORDER BY EmpID) AS CumulativeSum
FROM Employee;
```

Output :

EmpID	EmpName	Salary	CumulativeSum
1	Arjun	75000	75000
2	Ekadanta	125000	200000
3	Lalita	150000	350000
4	Madhav	250000	600000
5	Visakha	120000	720000

Q5. What's the Male & Female Employees ratio

```
SELECT (SUM(CASE WHEN Gender = 'M' THEN 1 ELSE 0 END) * 100.0 / COUNT(*)) AS MaleRatio,
       (SUM(CASE WHEN Gender = 'F' THEN 1 ELSE 0 END) * 100.0 / COUNT(*)) AS FemaleRatio
FROM Employee;
```

Output:

MaleRatio	FemaleRatio
60.00000	40.00000

Q6. Write a query to fetch 50% records from Employee table

```sql
SELECT *
FROM Employee
WHERE empID <= (SELECT COUNT(empid) * 0.50 FROM employee);
```

Output:

EmpID	EmpName	Gender	Salary	City
1	Arjun	M	75000	Pune
2	Ekadanta	M	125000	Bangalore

 # OR -using ROW_NUMBER()

```sql
WITH RankedEmployee AS (
    SELECT *, ROW_NUMBER() OVER (ORDER BY empID) AS RowNum
    FROM Employee
)
SELECT *
FROM RankedEmployee
WHERE RowNum <= (SELECT COUNT(empID) * 0.50 FROM Employee);
```

Output:

EmpID	EmpName	Gender	Salary	City	RowNum
1	Arjun	M	75000	Pune	1
2	Ekadanta	M	125000	Bangalore	2