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Batch : B1

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Experiment No. 3

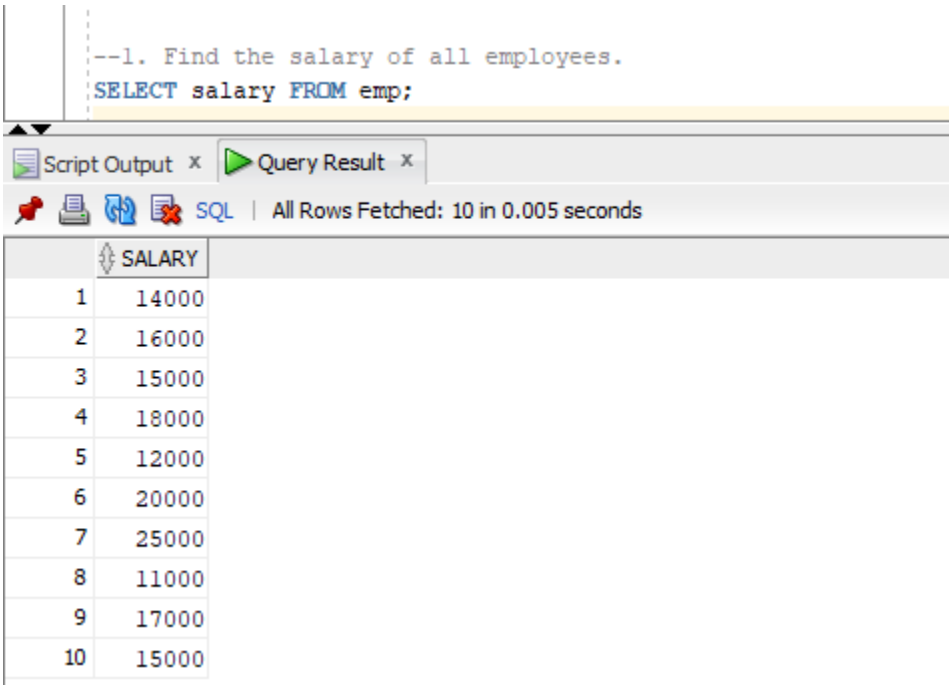
Implement Horizontal and Vertical Fragmentation and perform operations

```
CREATE TABLE emp (
    eno INT PRIMARY KEY,
    ename VARCHAR(50),
    city VARCHAR(50),
    salary DECIMAL(10, 2)
);
```

```
INSERT INTO emp (eno, ename, city, salary) VALUES (1, 'John', 'New York', 14000);
INSERT INTO emp (eno, ename, city, salary) VALUES (2, 'Bob', 'Los Angeles', 16000);
INSERT INTO emp (eno, ename, city, salary) VALUES (3, 'Charlie', 'Chicago', 15000);
INSERT INTO emp (eno, ename, city, salary) VALUES (4, 'David', 'Houston', 18000);
INSERT INTO emp (eno, ename, city, salary) VALUES (5, 'Eve', 'Phoenix', 12000);
INSERT INTO emp (eno, ename, city, salary) VALUES (6, 'Frank', 'Philadelphia', 20000);
INSERT INTO emp (eno, ename, city, salary) VALUES (7, 'Grace', 'San Antonio', 25000);
INSERT INTO emp (eno, ename, city, salary) VALUES (8, 'Alice', 'San Diego', 11000);
INSERT INTO emp (eno, ename, city, salary) VALUES (9, 'Ishani', 'Dallas', 17000);
INSERT INTO emp (eno, ename, city, salary) VALUES (10, 'Juria', 'San Jose', 15000);
```

--1. Find the salary of all employees.

SELECT salary FROM emp;



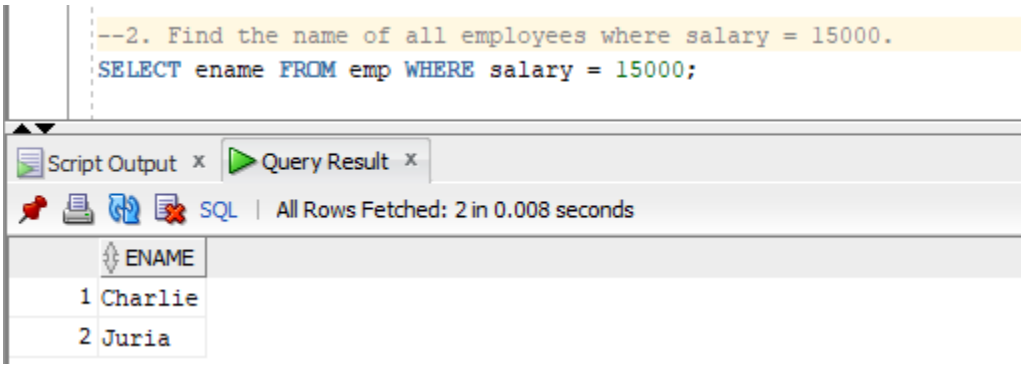
```
--1. Find the salary of all employees.
SELECT salary FROM emp;
```

Script Output | Query Result | SQL | All Rows Fetched: 10 in 0.005 seconds

	SALARY
1	14000
2	16000
3	15000
4	18000
5	12000
6	20000
7	25000
8	11000
9	17000
10	15000

--2. Find the name of all employees where salary = 15000.

SELECT ename FROM emp WHERE salary = 15000;



```
--2. Find the name of all employees where salary = 15000.
SELECT ename FROM emp WHERE salary = 15000;
```

Script Output | Query Result | SQL | All Rows Fetched: 2 in 0.008 seconds

	ENAME
1	Charlie
2	Juria

--3. Find the employee's name and city where employee salary is between 15000 to 25000.

SELECT ename, city FROM emp WHERE salary BETWEEN 15000 AND 25000;

```
--3. Find the employee's name and city where employee salary is between 15000 to  25000.
SELECT ename, city FROM emp WHERE salary BETWEEN 15000 AND 25000;
```

Script Output | Query Result

SQL | All Rows Fetched: 7 in 0.007 seconds

	ENAME	CITY
1	Bob	Los Angeles
2	Charlie	Chicago
3	David	Houston
4	Frank	Philadelphia
5	Grace	San Antonio
6	Ishani	Dallas
7	Juria	San Jose

--4. Find the employee's name and city where employee number is known.

SELECT ename, city

FROM emp

WHERE eno IS NOT NULL;

```
--4. Find the employee's name and city where employee number is known.
SELECT ename, city
FROM emp
WHERE eno IS NOT NULL;
```

Script Output | Query Result

SQL | All Rows Fetched: 10 in 0.006 seconds

	ENAME	CITY
1	John	New York
2	Bob	Los Angeles
3	Charlie	Chicago
4	David	Houston
5	Eve	Phoenix
6	Frank	Philadelphia
7	Grace	San Antonio
8	Alice	San Diego
9	Ishani	Dallas
10	Juria	San Jose

CREATE TABLE hFragment1 AS SELECT * FROM emp WHERE salary <= 15000;

CREATE TABLE hFragment2 AS SELECT * FROM emp WHERE salary > 15000;

SELECT * FROM hFragment1;

```
SELECT * FROM hFragment1;
SELECT * FROM hFragment2;
```

ript Output x | Query Result x

SQL | All Rows Fetched: 5 in 0.006 seconds

	ENO	ENAME	CITY	SALARY
1	1	John	New York	14000
2	3	Charlie	Chicago	15000
3	5	Eve	Phoenix	12000
4	8	Alice	San Diego	11000
5	10	Juria	San Jose	15000

SELECT * FROM hFragment2;

```
SELECT * FROM hFragment2;
```

Script Output x | Query Result x

SQL | All Rows Fetched: 5 in 0.006 seconds

	ENO	ENAME	CITY	SALARY
1	2	Bob	Los Angeles	16000
2	4	David	Houston	18000
3	6	Frank	Philadelphia	20000
4	7	Grace	San Antonio	25000
5	9	Ishani	Dallas	17000

CREATE TABLE vFragment1 AS SELECT eno, ename FROM emp;

CREATE TABLE vFragment2 AS SELECT eno, city, salary FROM emp;

SELECT * FROM vFragment1;

```
SELECT * FROM vFragment1;
```

Script Output | Query Result

SQL | All Rows Fetched: 10 in 0.028 seconds

	ENO	ENAME
1	1	John
2	2	Bob
3	3	Charlie
4	4	David
5	5	Eve
6	6	Frank
7	7	Grace
8	8	Alice
9	9	Ishani
10	10	Juria

SELECT * FROM vFragment2;

```
SELECT * FROM vFragment2;
```

Script Output | Query Result

SQL | All Rows Fetched: 10 in 0.006 seconds

	ENO	CITY	SALARY
1	1	New York	14000
2	2	Los Angeles	16000
3	3	Chicago	15000
4	4	Houston	18000
5	5	Phoenix	12000
6	6	Philadelphia	20000
7	7	San Antonio	25000
8	8	San Diego	11000
9	9	Dallas	17000
10	10	San Jose	15000