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Roll No:-3 **Batch:**T1

Class: TY(CSE-AIML)

Experiment No. 1

Title: Implement partitioning techniques on parallel databases.

Aim : To execute partitioning techniques on parallel databases.

1. Range Partitioning Execution

```
CREATE TABLE student(
   roll_no INT NOT NULL,
   name VARCHAR(20),
   lastName VARCHAR(20),
   age INT NOT NULL,
   city VARCHAR(20)
)
PARTITION BY RANGE (age) (
   PARTITION PART0 VALUES LESS THAN (20),
   PARTITION PART1 VALUES LESS THAN (30),
   PARTITION PART2 VALUES LESS THAN (40),
   PARTITION PART3 VALUES LESS THAN (50)
);
```

SELECT * FROM student WHERE age < 30;

Result Grid | Filter Rows: | Export:

roll_no	name	lastName	age	city
2	Radha	Patil	18	Mumbai
1	Sanika	Aralgundkar	21	Pune
3	Prashant	Shirgave	21	Kolhapur
5	Kunal	Jadhav	29	Sangli

SELECT * FROM student WHERE age BETWEEN 30 AND 40;

Result Grid | Filter Rows: | Export:

roll_no	name	lastName	age	city
4	Priya	Naik	32	Delhi
6	Neha	Kulkarni	38	Nashik

SELECT * FROM student WHERE age > 40;

Result Grid | Filter Rows: | Export:

roll_no	name	lastName	age	city
7	Neha	Kulkarni	41	Nashik

2. List Partitioning Execution

```
CREATE TABLE student1(
   roll_no INT NOT NULL,
   name VARCHAR(20),
   lastName VARCHAR(20),
   age INT NOT NULL,
   city VARCHAR(20)
)
PARTITION BY LIST COLUMNS (city) (
   PARTITION pCity1 VALUES IN ('Kolhapur','Pune'),
   PARTITION pCity2 VALUES IN ('Sangli','Satara'),
   PARTITION pCity3 VALUES IN ('Ichalakaranji','Dharashiv')
);
```

```
SELECT * FROM student1 WHERE city IN ('Kolhapur', 'Pune');
```

Result Grid | Filter Rows: | Export:

roll_no	name	lastName	age	city
201	Namrata	Desai	22	Kolhapur
202	Sharvil	Patil	24	Pune

```
SELECT * FROM student1 WHERE city IN ('Sangli', 'Satara');
```

Result Grid | Filter Rows: | Export:

roll_no	name	lastName	age	city
203	Sakshi	Bhosale	28	Sangli
204	Chetan	Gadgil	30	Satara

```
SELECT * FROM student1 WHERE city IN ('Ichalakaranji', 'Dharashiv');
```

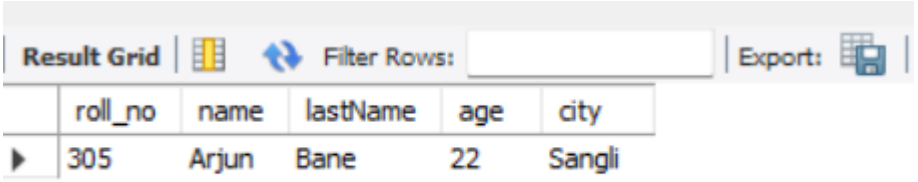
Result Grid | Filter Rows: | Export:

roll_no	name	lastName	age	city
206	Vishal	Patil	34	Dharashiv
205	Tina	Kadam	26	Ichalakaranji
206	Vishal	Patil	34	Dharashiv

3. Hash Partitioning Execution

```
CREATE TABLE student2(
   roll_no INT NOT NULL,
   name VARCHAR(20),
   lastName VARCHAR(20),
   age INT NOT NULL,
   city VARCHAR(20)
)
PARTITION BY HASH (roll_no)
PARTITIONS 5;
```

```
SELECT * FROM student2 WHERE roll_no % 5 = 0;
```



roll_no	name	lastName	age	city
305	Arjun	Bane	22	Sangli

```
SELECT * FROM student2;
```

roll_no	name	lastName	age	city
305	Arjun	Bane	22	Sangli
301	Raj	Kumar	23	Pune
306	Sonia	Mishra	29	Nagpur
302	Pooja	Dixit	27	Mumbai
303	Suresh	Rao	35	Kolhapur

Conclusion:- Students will able to perform partitioning techniques on parallel database.