

**Q.1 (A)** - Create book table ( book\_id (pk), title, author, price, book\_rating ) with range partition on rating with rating 1, 2 and 3 for three different partitions. Insert at least 10 records in the table.

```

1  CREATE TABLE books(
2      book_id INT PRIMARY KEY,
3      title VARCHAR(150),
4      author VARCHAR(100),
5      price NUMBER(10,2),
6      book_rating INT
7  )
8  PARTITION BY RANGE(book_rating)(
9      PARTITION p1 VALUES LESS THAN(2),
10     PARTITION p2 VALUES LESS THAN(3),
11     PARTITION p3 VALUES LESS THAN(4)
12 );

```

Table created.

```

14 INSERT INTO books(book_id,title,author,price,book_rating)VALUES(1,'Romeo and Juliet','William Shakespeare',1200.00,3);
15 INSERT INTO books(book_id,title,author,price,book_rating)VALUES(2,'The world as I see it','Albert Einstein',200.00,2);
16 INSERT INTO books(book_id,title,author,price,book_rating)VALUES(3,'Principia','Isaac Newton',240.50,3);
17 INSERT INTO books(book_id,title,author,price,book_rating)VALUES(4,'A Bunch of Old Letter','Jawaharlal Nehru',175.50,2);
18 INSERT INTO books(book_id,title,author,price,book_rating)VALUES(5,'Anandmath','Bankim Chandra Chatterjee',1290.00,1);
19 INSERT INTO books(book_id,title,author,price,book_rating)VALUES(6,'An Autobiography','Jawaharlal Nehru',190.00,3);
20 INSERT INTO books(book_id,title,author,price,book_rating)VALUES(7,'Broken Wings','Sarojini Naidu',350.50,2);
21 INSERT INTO books(book_id,title,author,price,book_rating)VALUES(8,'Bubble','Mulk Raj Anand',150.00,1);
22 INSERT INTO books(book_id,title,author,price,book_rating)VALUES(9,'By God's Decree','Kapil Dev',160.50,2);
23 INSERT INTO books(book_id,title,author,price,book_rating)VALUES(10,'Court Dancer','Rabindranath Tagore',1240.50,3);
24

```

1 row(s) inserted.

1 row(s) inserted.

**Q.1 (B)** Display all the books with the rating 2 and price in the range 200 and 1000.

```

25 Select * from books where book_rating =2 AND price BETWEEN 200 AND 1000;
26

```

BOOK_ID	TITLE	AUTHOR	PRICE	BOOK_RATING
2	The world as I see it	Albert Einstein	200	2
7	Broken Wings	Sarojini Naidu	350.5	2

**Q.2 (A) -** Create 3 partition in table cabinet using Range partition on cid Column of cabinet (cid, mem\_name, address, state\_rep, phone\_number, sal) P1 cid <101 ; P2 cid<501 ; P3 cid <1001. Insert at least 10 records in the table.

```

28 ✓ CREATE TABLE cabinet (
29     cid INT,
30     mem_name VARCHAR(255),
31     address VARCHAR(255),
32     state_rep VARCHAR(255),
33     phone_number VARCHAR(15),
34     sal NUMBER(10)
35 )
36 PARTITION BY RANGE (cid) (
37     PARTITION p1 VALUES LESS THAN (101),
38     PARTITION p2 VALUES LESS THAN (501),
39     PARTITION p3 VALUES LESS THAN (1001)
40 );
41

```

Table created.

```

41
42 INSERT INTO cabinet (cid,mem_name,address,state_rep,phone_number,sal) VALUES (20,'Omkar Gawas','Mirzole','Rep A','123-456-78',50000.00);
43 INSERT INTO cabinet (cid,mem_name,address,state_rep,phone_number,sal) VALUES (50,'Patu Harmalkar','Redi vengurla','Rep B','987-654-3210',40000.00);
44 INSERT INTO cabinet (cid,mem_name,address,state_rep,phone_number,sal) VALUES (75,'Akshay Sawant','Sawantwadi','Rep C','456-789-0123',55000.00);
45 INSERT INTO cabinet (cid,mem_name,address,state_rep,phone_number,sal) VALUES (150,'Deep Aravandekar','Aronda vengurla','Rep D','321-654-9870',70000.00);
46 INSERT INTO cabinet (cid,mem_name,address,state_rep,phone_number,sal) VALUES (200,'Tushar Desai','Dodamarg','Rep E','654-321-0987',65000.00);
47 INSERT INTO cabinet (cid,mem_name,address,state_rep,phone_number,sal) VALUES (300,'Dipak Gawade','Camp Vengurla','Rep F','789-012-3456',72000.00);
48 INSERT INTO cabinet (cid,mem_name,address,state_rep,phone_number,sal) VALUES (400,'Mayur Gawade','Amboli SAwantwadi','Rep G','123-789-4560',68000.00);
49 INSERT INTO cabinet (cid,mem_name,address,state_rep,phone_number,sal) VALUES (550,'Pajwal Muthye','Pernem Goa','Rep H','789-654-1230',75000.00);
50 INSERT INTO cabinet (cid,mem_name,address,state_rep,phone_number,sal) VALUES (700,'Aditya Gawandi','Redi Vengurla','Rep I','345-678-9012',80000.00);
51 INSERT INTO cabinet (cid,mem_name,address,state_rep,phone_number,sal) VALUES (900,'Siddesh Gulekar','Sawantwadi','Rep J','678-901-2345',78000.00);
52

```

1 row(s) inserted.

1 row(s) inserted.

**Q 2 (B) -** Display the content of the third partition

```

55 select * from cabinet partition(p3);
56

```

CID	MEM_NAME	ADDRESS	STATE_REP	PHONE_NUMBER	SAL
550	Pajwal Muthye	Pernem Goa	Rep H	789-654-1230	75000
700	Aditya Gawandi	Redi Vengurla	Rep I	345-678-9012	80000
900	Siddesh Gulekar	Sawantwadi	Rep J	678-901-2345	78000

**Q 3 (A)**-Create table Employee with attributes empid, name, age, salary and joining date by using hash partition based on employee salary with minimum 3 partitions. Insert at least 10 records in the table.

```

57 CREATE TABLE Employee (
58     empid INT PRIMARY KEY,
59     name VARCHAR(255),
60     age INT,
61     salary DECIMAL(10, 2),
62     joining_date DATE
63 )
64 PARTITION BY HASH (salary)
65 (PARTITION P1,
66 PARTITION P2,
67 PARTITION P3
68 );

```

Table created.

```

70 INSERT INTO Employee (empid,name,age,salary,joining_date) VALUES (1, 'Nishat Chile', 28, 60000.00, To_date('2022-05-10','yyyy-mm-dd'));
71 INSERT INTO Employee (empid,name,age,salary,joining_date) VALUES (2, 'Glen Desouza', 28, 60000.00, To_date('2021-05-10','yyyy-mm-dd'));
72 INSERT INTO Employee (empid,name,age,salary,joining_date) VALUES (3, 'Michael Johnson', 35, 70000.00, To_date('2020-09-01','yyyy-mm-dd'));
73 INSERT INTO Employee (empid,name,age,salary,joining_date) VALUES (4, 'Akshay Sawant', 26, 55000.00, To_date('2023-03-20','yyyy-mm-dd'));
74 INSERT INTO Employee (empid,name,age,salary,joining_date) VALUES (5, 'Omkar Gawas', 20, 80000.00, To_date('2019-12-11','yyyy-mm-dd'));
75 INSERT INTO Employee (empid,name,age,salary,joining_date) VALUES (6, 'Patu Harmalkar', 22, 62000.00, To_date('2022-08-30','yyyy-mm-dd'));
76 INSERT INTO Employee (empid,name,age,salary,joining_date) VALUES (7, 'Deep Aravandekar', 21, 58000.00, To_date('2023-01-25','yyyy-mm-dd'));
77 INSERT INTO Employee (empid,name,age,salary,joining_date) VALUES (8, 'Tushar Desai', 31, 75000.00, To_date('2020-06-15','yyyy-mm-dd'));
78 INSERT INTO Employee (empid,name,age,salary,joining_date) VALUES (9, 'Sail Jadhav', 21, 90000.00, To_date('2018-11-02','yyyy-mm-dd'));
79 INSERT INTO Employee (empid,name,age,salary,joining_date) VALUES (10, 'Sid Gulekar', 27, 48000.00, To_date('2023-04-18','yyyy-mm-dd'));
80

```

1 row(s) inserted.

1 row(s) inserted.

**Q 3 (B)** -Display the information about the employee in the third partition.

```

82 select * from Employee partition(p3);

```

EMPID	NAME	AGE	SALARY	JOINING_DATE
5	Omkar Gawas	20	80000	11-DEC-19

**Q 4-** Create test\_record(test\_id, test\_type, patient\_name, employee\_no, labno, result) with list partition on result field as : P1=(positive) P2=(negative) Insert at least 10 records in the table. Display the test\_records which have negative result.

```

84 CREATE TABLE test_record (
85     test_id INT PRIMARY KEY,
86     test_type VARCHAR(255),
87     patient_name VARCHAR(255),
88     employee_no INT,
89     labno VARCHAR(50),
90     result VARCHAR(50)
91 )
92 PARTITION BY LIST (result) (
93     PARTITION p1 VALUES ('positive'),
94     PARTITION p2 VALUES ('negative')
95 );

```

Table created.

```

96 ''
97 INSERT INTO test_record (test_id,test_type,patient_name,employee_no,labno,result) VALUES (1, 'Blood Test', 'Deep Arondekar', 101, 'L1001', 'positive');
98 INSERT INTO test_record (test_id,test_type,patient_name,employee_no,labno,result) VALUES (2, 'Urine Test', 'Aditya Gawandi', 102, 'L1002', 'negative');
99 INSERT INTO test_record (test_id,test_type,patient_name,employee_no,labno,result) VALUES (3, 'COVID-19 Test', 'Akshay Sawant', 103, 'L1003', 'positive');
100 INSERT INTO test_record (test_id,test_type,patient_name,employee_no,labno,result) VALUES (4, 'X-ray', 'Patu Harmalkar', 104, 'L1004', 'negative');
101 INSERT INTO test_record (test_id,test_type,patient_name,employee_no,labno,result) VALUES (5, 'Blood Test', 'Omkar Gawas', 105, 'L1005', 'positive');
102 INSERT INTO test_record (test_id,test_type,patient_name,employee_no,labno,result) VALUES (6, 'Urine Test', 'Tushar Desai', 106, 'L1006', 'negative');
103 INSERT INTO test_record (test_id,test_type,patient_name,employee_no,labno,result) VALUES (7, 'MRI', 'James Taylor', 107, 'L1007', 'positive');
104 INSERT INTO test_record (test_id,test_type,patient_name,employee_no,labno,result) VALUES (8, 'CT Scan', 'Tushar Naik', 108, 'L1008', 'negative');
105 INSERT INTO test_record (test_id,test_type,patient_name,employee_no,labno,result) VALUES (9, 'Blood Test', 'Lalit Naik', 109, 'L1009', 'positive');
106 INSERT INTO test_record (test_id,test_type,patient_name,employee_no,labno,result) VALUES (10, 'X-ray', 'Mans Tulaskar', 110, 'L1010', 'negative');

```

1 row(s) inserted.

1 row(s) inserted.

```

109 SELECT * FROM test_record WHERE result = 'negative';

```

TEST_ID	TEST_TYPE	PATIENT_NAME	EMPLOYEE_NO	LABNO	RESULT
2	Urine Test	Aditya Gawandi	102	L1002	negative
4	X-ray	Patu Harmalkar	104	L1004	negative
6	Urine Test	Tushar Desai	106	L1006	negative
8	CT Scan	Tushar Naik	108	L1008	negative
10	X-ray	Mans Tulaskar	110	L1010	negative

**Q 5 (A)**-Create table Bank with fields BankId, BName, Location. Partition the Bank table based on Location as per following.

BK1 = (Mumbai, Pune, Nashik), BK2 = (Lucknow, Kanpur, Varanasi)

BK3 = (Chandigarh, Mohali, Amritsar), BK4 = (GandhiNagar, Ahmedabad, Surat)

Insert 10 records in Bank table.

```
1 CREATE TABLE Bank (  
2     BankId INT PRIMARY KEY,  
3     BName VARCHAR(255),  
4     Location VARCHAR(255)  
5 )  
6 PARTITION BY LIST (Location) (  
7     PARTITION BK1 VALUES ('Mumbai', 'Pune', 'Nashik'),  
8     PARTITION BK2 VALUES ('Lucknow', 'Kanpur', 'Varanasi'),  
9     PARTITION BK3 VALUES ('Chandigarh', 'Mohali', 'Amritsar'),  
10    PARTITION BK4 VALUES ('GandhiNagar', 'Ahmedabad', 'Surat')  
11 );  
12
```

Table created.

```
13 INSERT INTO Bank (BankId, BName, Location) VALUES (1, 'Punjab National Bank', 'Varanasi');  
14 INSERT INTO Bank (BankId, BName, Location) VALUES (2, 'Yes Bank', 'Chandigarh');  
15 INSERT INTO Bank (BankId, BName, Location) VALUES (3, 'Kotak Mahindra Bank', 'Mohali');  
16 INSERT INTO Bank (BankId, BName, Location) VALUES (4, 'IndusInd Bank', 'Ahmedabad');  
17 INSERT INTO Bank (BankId, BName, Location) VALUES (5, 'Union Bank', 'Surat');  
18 INSERT INTO Bank (BankId, BName, Location) VALUES (6, 'HDFC Bank', 'Mumbai');  
19 INSERT INTO Bank (BankId, BName, Location) VALUES (7, 'ICICI Bank', 'Pune');  
20 INSERT INTO Bank (BankId, BName, Location) VALUES (8, 'Axis Bank', 'Nashik');  
21 INSERT INTO Bank (BankId, BName, Location) VALUES (9, 'State Bank of India', 'Lucknow');  
22 INSERT INTO Bank (BankId, BName, Location) VALUES (10, 'Bank of Baroda', 'Kanpur');  
23
```

1 row(s) inserted.

1 row(s) inserted.

**Q 5 (B)** - Add values "Ratnagiri" in BK1 partition.

```
12  
13 ALTER TABLE Bank MODIFY PARTITION BK1 ADD VALUES('Ratnagiri')
```

Table altered.