Assignment No	2
Title	Implement partitioning Concepts
Objective	List partitioning
Roll No	MCA2565

1. Create Table student with attributes id,name,dob and partition by list

```
SQL> create table Student(
  2  student_id number(5),
  3  student_name varchar(20),
  4  student_dob date)
  5  partition by list(student_name)
  6  (partition stu_divA values('a','b','c','d','e','f','g','h','i','j','k'),
  7  partition stu_divB values('n','o','p','q','r','s','t','u','v','w','x','y','z'));

Table created.
```

2. Insert values into Student table

```
SQL> insert into Student values(0121,'m',to_date('23-AUG-1963','dd-MON-yyyy'));
insert into Student values(0121,'m',to_date('23-AUG-1963','dd-MON-yyyy'))
            *
ERROR at line 1:
ORA-14400: inserted partition key does not map to any partition


SQL> insert into Student values(0121,'n',to_date('23-AUG-1963','dd-MON-yyyy'));

1 row created.

SQL> insert into Student values(0221,'j',to_date('15-SEP-1963','dd-MON-yyyy'));

1 row created.

SQL> insert into Student values(0321,'a',to_date('21-JUN-1953','dd-MON-yyyy'));

1 row created.

SQL> insert into Student values(0421,'h',to_date('10-JUl-1991','dd-MON-yyyy'));

1 row created.

SQL> insert into Student values(0521,'i',to_date('06-DEC-1977','dd-MON-yyyy'));

1 row created.

SQL> insert into Student values(0621,'z',to_date('26-JAN-1993','dd-MON-yyyy'));

1 row created.

SQL> insert into Student values(0621,'s',to_date('18-FEB-1985','dd-MON-yyyy'));
```

3. Show the values in Partition A and B

```
SQL> select * from Student partition(stu_divA);

STUDENT_ID STUDENT_NAME         STUDENT_D
---------- -------------------- ---------
       221 j                    15-SEP-63
       321 a                    21-JUN-53
       421 h                    10-JUL-91
       521 i                    06-DEC-77

SQL> select * from Student partition(stu_divB);

STUDENT_ID STUDENT_NAME         STUDENT_D
---------- -------------------- ---------
       121 n                    23-AUG-63
       621 z                    26-JAN-93
       621 s                    18-FEB-85
```

4. Show partition in table separatly.

```
SQL> SELECT TABLE_NAME,PARTITION_NAME,HIGH_VALUE,NUM_ROWS FROM USER_TAB_PARTITIONS
  2  WHERE TABLE_NAME='STUDENT';

TABLE_NAME
--------------------------------------------------------------------------------
PARTITION_NAME
--------------------------------------------------------------------------------
HIGH_VALUE
--------------------------------------------------------------------------------
  NUM_ROWS
----------
STUDENT
STU_DIVA
'a', 'b', 'c', 'd', 'e', 'f', 'g', 'h', 'i', 'j', 'k'



TABLE_NAME
--------------------------------------------------------------------------------
PARTITION_NAME
--------------------------------------------------------------------------------
HIGH_VALUE
--------------------------------------------------------------------------------
  NUM_ROWS
----------
STUDENT
STU_DIVB
'n', 'o', 'p', 'q', 'r', 's', 't', 'u', 'v', 'w', 'x', 'y', 'z'
```

5. Write a command to add new partition called stu_null for the null values

```
SQL> alter table student add partition stu_null values(NULL);

Table altered.

SQL> SELECT TABLE_NAME,PARTITION_NAME,HIGH_VALUE,NUM_ROWS FROM USER_TAB_PARTITIONS
  2  WHERE TABLE_NAME='STUDENT';

TABLE_NAME
--------------------------------------------------------------------------------
PARTITION_NAME
--------------------------------------------------------------------------------
HIGH_VALUE
--------------------------------------------------------------------------------
  NUM_ROWS
----------
STUDENT
STU_DIVA
'a', 'b', 'c', 'd', 'e', 'f', 'g', 'h', 'i', 'j', 'k'



TABLE_NAME
--------------------------------------------------------------------------------
PARTITION_NAME
--------------------------------------------------------------------------------
HIGH_VALUE
--------------------------------------------------------------------------------
  NUM_ROWS
----------
STUDENT
STU_DIVB
'n', 'o', 'p', 'q', 'r', 's', 't', 'u', 'v', 'w', 'x', 'y', 'z'
```

```
TABLE_NAME
------------------------------------------------------------------------------
PARTITION_NAME
------------------------------------------------------------------------------
HIGH_VALUE
------------------------------------------------------------------------------
  NUM_ROWS
----------
STUDENT
STU_NULL
NULL
```

6. Add values into stu_null table

```
SQL> insert into Student values(0621,'',to_date('18-FEB-1985','dd-MON-yyyy'));

1 row created.

SQL> insert into Student values(0621,'',to_date('01-may-1999','dd-MON-yyyy'));

1 row created.
```

```
SQL> select * from Student partition(stu_null);

STUDENT_ID STUDENT_NAME          STUDENT_D
---------- --------------------- ---------
       621                       18-FEB-85
       621                       01-MAY-99
```

7. Write a command to add new partition called stu_default for the default values
   Write a command to display records from the stu_default partition

```
SQL> alter table Student add partition stu_default values(DEFAULT)
  2  ;

Table altered.

SQL> select * from Student partition(stu_default);

no rows selected
```

8. Command to add values ‘l’and ‘m’ in a partition stu_divA

```
SQL> alter table Student modify partition stu_divA add values ('l','m');

Table altered.
```

```
TABLE_NAME
------------------------------------------------------------------------------
PARTITION_NAME
------------------------------------------------------------------------------
HIGH_VALUE
------------------------------------------------------------------------------
  NUM_ROWS
---------
STUDENT
STU_DEFAULT
DEFAULT
```

9. Add new l and m values in div A

```
SQL> select * from Student partition(stu_divA);

STUDENT_ID STUDENT_NAME         STUDENT_D
---------- -------------------- ---------
       221 j                    15-SEP-63
       321 a                    21-JUN-53
       421 h                    10-JUL-91
       521 i                    06-DEC-77
       721 l                    01-JAN-00
       721 m                    02-DEC-86

6 rows selected.
```