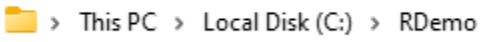
ADBMS PRACTICAL

Q1) R

1. Create folder RDemo



2. Set working directory to this folder

setwd("C:/RDemo")

```
> setwd("C:/RDemo")
```

3.Check whether directory set or not

getwd()

```
> getwd()
[1] "C:/RDemo"
```

4.List content of directory

ls()

```
> ls()
[1] "k1"        "k1cluster" "m"         "mdash"     "o"         "p"
[7] "r"         "x"         "y"
```

5.General help

help.start()

```
> help.start()
If nothing happens, you should open
'http://127.0.0.1:24290/doc/html/index.html' yourself
```

6.Install package vcd

install.packages("vcd")

```
> install.packages("vcd")
```

7.Access help of vcd

help(vcd)

```
> help(vcd)
No documentation for 'vcd' in specified packages and libraries:
you could try '??vcd'
```

8.Load package vcd

library(vcd)

```
> library(vcd)
Loading required package: grid
```

9.Check dataset iris

data("iris")

```
> data("iris")
```

10. Print iris dataset

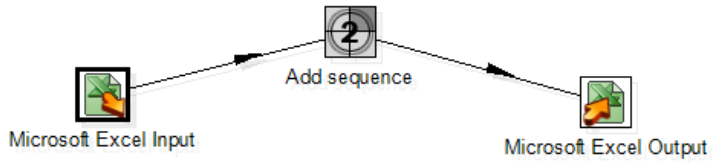
data("iris")

iris

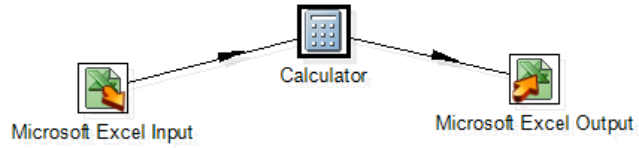
```
> data("iris")
> iris
    Sepal.Length Sepal.Width Petal.Length Petal.Width    Species
1            5.1         3.5          1.4         0.2     setosa
2            4.9         3.0          1.4         0.2     setosa
3            4.7         3.2          1.3         0.2     setosa
4            4.6         3.1          1.5         0.2     setosa
5            5.0         3.6          1.4         0.2     setosa
6            5.4         3.9          1.7         0.4     setosa
7            4.6         3.4          1.4         0.3     setosa
8            5.0         3.4          1.5         0.2     setosa
9            4.4         2.9          1.4         0.2     setosa
10           4.9         3.1          1.5         0.1     setosa
11           5.4         3.7          1.5         0.2     setosa
> head(iris)
  Sepal.Length Sepal.Width Petal.Length Petal.Width Species
1          5.1         3.5          1.4         0.2  setosa
2          4.9         3.0          1.4         0.2  setosa
3          4.7         3.2          1.3         0.2  setosa
4          4.6         3.1          1.5         0.2  setosa
5          5.0         3.6          1.4         0.2  setosa
6          5.4         3.9          1.7         0.4  setosa
```

Q2 A] ETL Transformation

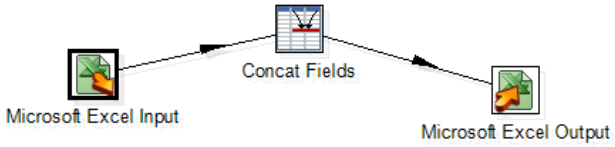
1. Adding Sequence



2. Adding Calculator



3. Concate



B] Range partitioning

```
CREATE TABLE purchase_range_sakshi(
 2  p_id NUMBER(5),
 3  p_name VARCHAR2(30),
 4  p_amt NUMBER(20))
```

```
 5  PARTITION BY RANGE(p_amt)(
 6  PARTITION P1 VALUES LESS THAN (1000),
 7  PARTITION P2 VALUES LESS THAN (2000),
 8  PARTITION P3 VALUES LESS THAN (4000),
 9  PARTITION P4 VALUES LESS THAN (MAXVALUE)
10  );
```

```
SQL> CREATE TABLE purchase_range_sakshi(
  2  p_id NUMBER(5),
  3  p_name VARCHAR2(30),
  4  p_amt NUMBER(20))
  5  PARTITION BY RANGE(p_amt)(
  6  PARTITION P1 VALUES LESS THAN (1000),
  7  PARTITION P2 VALUES LESS THAN (2000),
  8  PARTITION P3 VALUES LESS THAN (4000),
  9  PARTITION P4 VALUES LESS THAN (MAXVALUE)
 10  );

Table created.
```

```
SQL> INSERT INTO purchase_range_sakshi
  2  VALUES(101,'Sakshi',1500);
1 row created.

SQL> INSERT INTO purchase_range_sakshi
  2  VALUES(102,'Shivani',2500);
1 row created.

SQL> INSERT INTO purchase_range_sakshi
  2  VALUES(103,'Shreya',3500);
1 row created.

SQL> INSERT INTO purchase_range_sakshi
  2  VALUES(104,'Pranav',500);
1 row created.

SQL> INSERT INTO purchase_range_sakshi
  2  VALUES(105,'Prasanna',2700);
1 row created.
```

```
SQL> INSERT INTO purchase_range_sakshi
  2  VALUES(101,'Sakshi',1500);

1 row created.

SQL> INSERT INTO purchase_range_sakshi
  2  VALUES(102,'Shivani',2500);

1 row created.

SQL> INSERT INTO purchase_range_sakshi
  2  VALUES(103,'Shreya',3500);

1 row created.

SQL> INSERT INTO purchase_range_sakshi
  2  VALUES(104,'Pranav',500);

1 row created.

SQL> INSERT INTO purchase_range_sakshi
  2  VALUES(105,'Prasanna',2700);

1 row created.
```

SQL> select * from purchase_range_sakshi PARTITION (P1);
SQL> select * from purchase_range_sakshi PARTITION (P2);
SQL> select * from purchase_range_sakshi PARTITION (P3);

```
SQL> select * from purchase_range_sakshi PARTITION (P1);

      P_ID P_NAME                          P_AMT
---------- ------------------------------ ----------
       104 Pranav                            500

SQL> select * from purchase_range_sakshi PARTITION (P2);

      P_ID P_NAME                          P_AMT
---------- ------------------------------ ----------
       101 Sakshi                           1500

SQL> select * from purchase_range_sakshi PARTITION (P3);

      P_ID P_NAME                          P_AMT
---------- ------------------------------ ----------
       102 Shivani                          2500
       103 Shreya                           3500
       105 Prasanna                         2700
```

Q3 A] ADT

SQL> Create type passenger_type as object
 2 (
 3 PID number(6),
 4 PName varchar2(20),
 5 Address varchar2(20),
 6 Destination varchar2(20),
 7 Age number(6)

```
 8  );
 9  /
```

```
SQL> Create type passenger_type as object
  2  (
  3  PID number(6),
  4  PName varchar2(20),
  5  Address varchar2(20),
  6  Destination varchar2(20),
  7  Age number(6)
  8  );
  9  /

Type created.
```

```
SQL> create table passenger
 2  (
 3  Passenger_dtls passenger_type
 4  );
```

```
SQL> create table passenger
  2  (
  3  Passenger_dtls passenger_type
  4  );

Table created.
```

```
SQL> Insert into passenger
  2  Values(passenger_type('1','Sakshi','Vikhroli','France','21'));
1 row created.

SQL> Insert into passenger
  2  Values(passenger_type('2','Shivani','Chembur','Goa','23'));
1 row created.

SQL> Insert into passenger
  2  Values(passenger_type('3','Shreya','CottonGreen','Dubai','20'));
1 row created.

SQL> Insert into passenger
  2  Values(passenger_type('4','Pranav','Kalyan','Maldives','21'));
1 row created.

SQL> Insert into passenger
  2  Values(passenger_type('5','Prasanna','Kharghar','Singapore','21'));
1 row created.
```

```
SQL> Insert into passenger
  2  Values(passenger_type('1','Sakshi','Vikhroli','France','21'));

1 row created.

SQL> Insert into passenger
  2  Values(passenger_type('2','Shivani','Chembur','Goa','23'));

1 row created.

SQL> Insert into passenger
  2  Values(passenger_type('3','Shreya','CottonGreen','Dubai','20'));

1 row created.

SQL> Insert into passenger
  2  Values(passenger_type('4','Pranav','Kalyan','Maldives','21'));

1 row created.

SQL> Insert into passenger
  2  Values(passenger_type('5','Prasanna','Kharghar','Singapore','21'));

1 row created.
```

SQL> Select * from passenger;

```
SQL> Select * from passenger;

PASSENGER_DTLS(PID, PNAME, ADDRESS, DESTINATION, AGE)
----------------------------------------------------
PASSENGER_TYPE(1, 'Sakshi', 'Vikhroli', 'France', 21)
PASSENGER_TYPE(2, 'Shivani', 'Chembur', 'Goa', 23)
PASSENGER_TYPE(3, 'Shreya', 'CottonGreen', 'Dubai', 20)
PASSENGER_TYPE(4, 'Pranav', 'Kalyan', 'Maldives', 21)
PASSENGER_TYPE(5, 'Prasanna', 'Kharghar', 'Singapore', 21)
```

B] Lead Lag

SQL> CREATE TABLE sakshi(id INTEGER,name VARCHAR2(20),department VARCHAR2(20),major VARCHAR2(20),joinf_date DATE, marks INTEGER);

```
SQL>  CREATE TABLE sakshi(id INTEGER,name VARCHAR2(20),department VARCHAR2(20),major VARCHAR2(20),joinf_date DATE, marks INTEGER);
```

```
SQL> INSERT INTO sakshi
  2   VALUES (1,'SAKSHI','MCA','ADBMS',TO_DATE('28/10/2001','DD/MM/YYYY'),72);
1 row created.

SQL> INSERT INTO sakshi
  2  VALUES (2,'SHIVANI','BE IT','MFCS',TO_DATE('15/05/2022','DD/MM/YYYY'),77);
1 row created.

SQL> INSERT INTO sakshi
  2  VALUES (3,'SHREYA','LLB','LAW',TO_DATE('11/02/2002','DD/MM/YYYY'),77);
1 row created.

SQL> INSERT INTO sakshi
  2  VALUES (4,'PRANAV','BE CS','AJAVA',TO_DATE('13/11/2001','DD/MM/YYYY'),97);
```

1 row created.

SQL> INSERT INTO sakshi
  2 VALUES (5,'PRASANNA','BE CS','SPM',TO_DATE('09/02/2001','DD/MM/YYYY'),97);
1 row created.

```
SQL> INSERT INTO sakshi
  2   VALUES (1,'SAKSHI','MCA','ADBMS',TO_DATE('28/10/2001','DD/MM/YYYY'),72);

1 row created.

SQL> INSERT INTO sakshi
  2  VALUES (2,'SHIVANI','BE IT','MFCS',TO_DATE('15/05/2022','DD/MM/YYYY'),77);

1 row created.

SQL> INSERT INTO sakshi
  2  VALUES (3,'SHREYA','LLB','LAW',TO_DATE('11/02/2002','DD/MM/YYYY'),77);

1 row created.

SQL> INSERT INTO sakshi
  2  VALUES (4,'PRANAV','BE CS','AJAVA',TO_DATE('13/11/2001','DD/MM/YYYY'),97);

1 row created.

SQL> INSERT INTO sakshi
  2  VALUES (5,'PRASANNA','BE CS','SPM',TO_DATE('09/02/2001','DD/MM/YYYY'),97);

1 row created.
```

LEAD

SQL> SELECT id,joinf_date,
  2 LEAD(joinf_date,1)OVER(ORDER BY joinf_date)AS "NEXT"
  3 FROM Sakshi;

```
SQL> SELECT id,joinf_date,
  2  LEAD(joinf_date,1)OVER(ORDER BY joinf_date)AS "NEXT"
  3  FROM  Sakshi;

        ID JOINF_DAT NEXT
---------- --------- ---------
         5 09-FEB-01 28-OCT-01
         1 28-OCT-01 13-NOV-01
         4 13-NOV-01 11-FEB-02
         3 11-FEB-02 15-MAY-22
         2 15-MAY-22
```

LAG

SQL> SELECT id,joinf_date,
  2 LAG(joinf_date,1)OVER(ORDER BY joinf_date)AS "PREVIOUS"
  3 FROM Sakshi;

```
SQL> SELECT id,joinf_date,
  2   LAG(joinf_date,1)OVER(ORDER BY joinf_date)AS "PREVIOUS"
  3   FROM Sakshi;

        ID JOINF_DAT PREVIOUS
---------- --------- ---------
         5 09-FEB-01
         1 28-OCT-01 09-FEB-01
         4 13-NOV-01 28-OCT-01
         3 11-FEB-02 13-NOV-01
         2 15-MAY-22 11-FEB-02
```