

ORACLE LAB ASSIGNMENT – 6

Q.1 Create a database cluster named order_customer and include the tables customer and orders within it.

- Create cluster

```
Connected.
SQL> CREATE CLUSTER order_customer (customer_id NUMBER);

Cluster created.
```

- Create index

```
SQL> CREATE INDEX order_customer_idx
2 ON CLUSTER order_customer;
```

- Create table

```
SQL> CREATE TABLE customer (
2     customer_id NUMBER PRIMARY KEY,
3     customer_name VARCHAR2(50),
4     contact_number VARCHAR2(15)
5 )
6 CLUSTER order_customer (customer_id);

Table created.
```

- Display table

```
SQL> desc customer;
Name                                         Null?    Type
-----
CUSTOMER_ID                                NOT NULL NUMBER
CUSTOMER_NAME                               VARCHAR2(50)
CONTACT_NUMBER                             VARCHAR2(15)
```

- Create table

```
SQL> CREATE TABLE orders (
2     order_id NUMBER PRIMARY KEY,
3     customer_id NUMBER,
4     order_date DATE,
5     total_amount NUMBER(10, 2),
6     FOREIGN KEY (customer_id) REFERENCES customer(customer_id)
7 )
8 CLUSTER order_customer (customer_id);

Table created.
```

- Display table

```
SQL> desc orders;
Name                                         Null?    Type
-----
ORDER_ID                                     NOT NULL NUMBER
CUSTOMER_ID                                NUMBER
ORDER_DATE                                  DATE
TOTAL_AMOUNT                                NUMBER(10,2)
```

- Insert data

```
SQL> INSERT INTO customer VALUES (1, 'jay', '555-1234');
1 row created.

SQL> INSERT INTO customer VALUES (2, 'vijay', '555-5678');
1 row created.
```

- Display data

```
SQL> select *from customer;
CUSTOMER_ID CUSTOMER_NAME                                CONTACT_NUMBER
-----
          1 jay                                           555-1234
          2 vijay                                          555-5678
```

- Insert data

```
SQL> INSERT INTO orders VALUES (101, 1, TO_DATE('2024-09-19', 'YYYY-MM-DD'), 150.00);
1 row created.

SQL> INSERT INTO orders VALUES (102, 2, TO_DATE('2024-09-18', 'YYYY-MM-DD'), 200.50);
1 row created.
```

- Display data

```
SQL> select *from orders;
ORDER_ID CUSTOMER_ID ORDER_DAT TOTAL_AMOUNT
-----
      101           1 19-SEP-24         150
      102           2 18-SEP-24        200.5
```

- Display View Cluster

```
SQL> SELECT table_name
2 FROM USER_TABLES
3 WHERE cluster_name = 'ORDER_CUSTOMER';

TABLE_NAME
-----
CUSTOMER
ORDERS
```

Q.2 Create a snapshot based upon the product_master table.

- Create table

```
SQL> CREATE TABLE product_master (  
2     product_id NUMBER PRIMARY KEY,  
3     product_name VARCHAR2(100),  
4     price NUMBER(10, 2)  
5 );  
  
Table created.
```

- Display table

```
SQL> desc product_master;  
Name                               Null?    Type  
-----  
PRODUCT_ID                         NOT NULL NUMBER  
PRODUCT_NAME                       VARCHAR2(100)  
PRICE                              NUMBER(10,2)
```

- Insert data

```
SQL> INSERT INTO product_master VALUES (1, 'Laptop', 999.99);  
  
1 row created.  
  
SQL> INSERT INTO product_master VALUES (2, 'Smartphone', 499.50);  
  
1 row created.
```

- Display data

```
SQL> select *from product_master;  
  
PRODUCT_ID  PRODUCT_NAME                                PRICE  
-----  
1 Laptop                                           999.99  
2 Smartphone                                       499.5
```

- Create snapshot

```
SQL> CREATE SNAPSHOT product_snapshot  
2 REFRESH COMPLETE START WITH SYSDATE NEXT SYSDATE + 1  
3 AS  
4 SELECT * FROM product_master;  
  
Materialized view created.
```

- Display snapshot

```
SQL> SELECT * FROM product_snapshot;  
  
PRODUCT_ID  PRODUCT_NAME                                PRICE  
-----  
1 Laptop                                           999.99  
2 Smartphone                                       499.5
```

Q.3 Create synonyms pvt_client (private) and pub_client(public) based upon the client_master table.

- Create table

```
SQL> CREATE TABLE client_master (
2     client_id NUMBER PRIMARY KEY,
3     client_name VARCHAR2(100),
4     email VARCHAR2(100)
5 );
```

Table created.

- Display table

```
SQL> desc client_master;
```

Name	Null?	Type
CLIENT_ID	NOT NULL	NUMBER
CLIENT_NAME		VARCHAR2(100)
EMAIL		VARCHAR2(100)

- Insert data

```
SQL> INSERT INTO client_master VALUES (1, 'jay', 'contact@acme.com');
```

```
1 row created.
```

```
SQL> INSERT INTO client_master VALUES (2, 'ajay', 'support@globex.com');
```

```
1 row created.
```

- Display data

```
SQL> select *from client_master;
```

CLIENT_ID	CLIENT_NAME	EMAIL
1	jay	contact@acme.com
2	ajay	support@globex.com

- Create private synonym

```
SQL> CREATE SYNONYM pvt_client FOR client_master;
```

Synonym created.

- Display synonym

```
SQL> select *from pvt_client;
```

CLIENT_ID	CLIENT_NAME	EMAIL
1	jay	contact@acme.com
2	ajay	support@globex.com

- Create private synonym

```
SQL> CREATE PUBLIC SYNONYM pub_client FOR client_master;
```

Synonym created.

- Display synonym

```
SQL> select *from pub_client;
```