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Princess Sumaya University for Technology
King Hussein Faculty of Computing Sciences
Computer Science Department

DataBase Systems Lab
CS 11354
Lab Assignment # 8
Semester: Spring 2022/2023

Lab Exercises:

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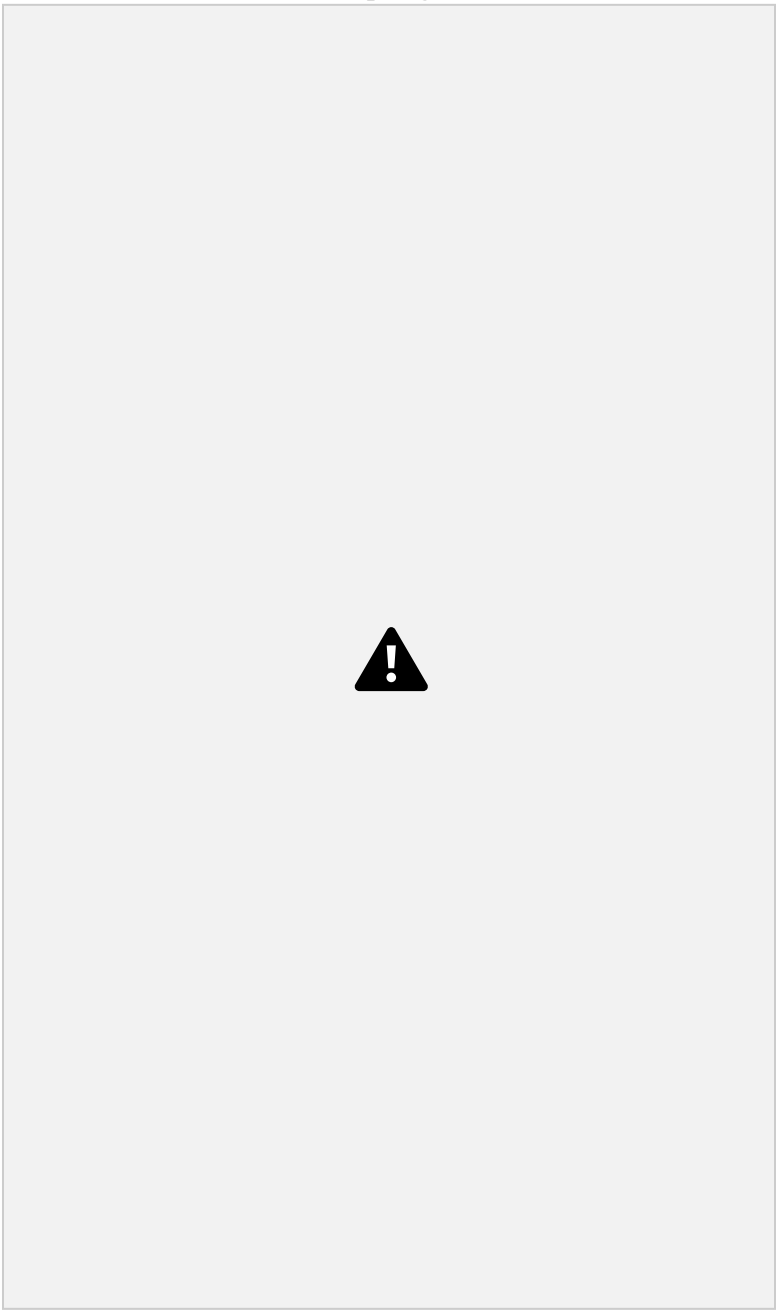

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Part I: DML:

1. Insert the following data to **Customers** table.

Customer_ID	Name	Address	Credit_limit
320	Samer	Amman	100
321	Ahmad	Aqaba	200
322	Ali	Amman	300

```
INSERT INTO CUSTOMERS (CUSTOMER_ID, NAME, ADDRESS, CREDIT_LIMIT) VALUES (320, 'Samer', 'Amman', 100);

INSERT INTO CUSTOMERS (CUSTOMER_ID, NAME, ADDRESS, CREDIT_LIMIT) VALUES (321, 'Ahmad', 'Aqaba', 200);

INSERT INTO CUSTOMERS (CUSTOMER_ID, NAME, ADDRESS, CREDIT_LIMIT) VALUES (322, 'Ali', 'Amman', 300);
```

2. Update the **Customers** address to ‘Salt’ for all customers who lives in Aqaba.

```
UPDATE CUSTOMERS SET ADDRESS = 'Salt' WHERE ADDRESS = 'Aqaba';
```

3. Update the credit limit for the customers by adding 200 on the current credit limit for all customers who lives in Amman.

```
UPDATE CUSTOMERS SET CREDIT_LIMIT = CREDIT_LIMIT + 200 WHERE ADDRESS = 'Amman';
```

4. Commit your transactions.

```
commit;
```

Part II: Sequences:

1. Create a sequence products_Seq that starts with 300, with maximum value of 1000 and incremented by 1.

```
CREATE SEQUENCE products_Seq INCREMENT BY 1 START WITH 300 MAXVALUE 1000;
```

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2. Insert a new record in products table, with the data as follows and use the sequence to create a product ID.

product_ID	Product_name	List_price	category
Use products_Seq	Ram	20	1
Use products_Seq	CPU	100	2
Use products_Seq	Mouse	5	3

```
INSERT INTO PRODUCTS (PRODUCT_ID, PRODUCT_NAME, LIST_PRICE, CATEGORY_ID) VALUES (products_Seq.NEXTVAL, 'Ram', 20, 1);
INSERT INTO PRODUCTS (PRODUCT_ID, PRODUCT_NAME, LIST_PRICE, CATEGORY_ID) VALUES (products_Seq.NEXTVAL, 'CPU', 100, 2);
INSERT INTO PRODUCTS (PRODUCT_ID, PRODUCT_NAME, LIST_PRICE, CATEGORY_ID) VALUES (products_Seq.NEXTVAL, 'Mouse', 5, 3);
```

3. Commit your transactions.

```
commit;
```

4. Retrieve the current value of the sequence products_Seq.

```
SELECT PRODUCTS_SEQ.CURRVAL FROM DUAL;
```

Part III: Views:

1. Create a view for the orders table called view_orders that contains the order_id, customer_id, status, order_date. Name the columns as following orderID, customerID, status, orderDate for orders which status is ‘Pending’. Use “WITH CHECK OPTION”.

```
CREATE OR REPLACE VIEW VIEW_ORDER AS SELECT ORDER_ID AS ORDERID, CUSTOMER_ID AS CUSTOMERID, STATUS, ORDER_DATE AS ORDERDATE FROM ORDERS WHERE STATUS = 'Pending' WITH CHECK OPTION ;
```

2. Insert a new order with id = 106, customer_id=318,status=’Pending’, order_date=sysdate to the view.

```
INSERT INTO ORDERS (ORDER_ID, CUSTOMER_ID, STATUS, ORDER_DATE) VALUES (106,318, 'Pending', SYSDATE);
```

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3. Recreate the view with “WITH READ ONLY”

```
CREATE OR REPLACE VIEW VIEW_ORDER AS SELECT ORDER_ID AS ORDERID, CUSTOMER_ID AS CUSTOMERID, STATUS, ORDER_DATE AS ORDERDATE FROM ORDERS WHERE STATUS = 'Pending' WITH READ ONLY;
```

4. Create a new view for the order_items, products table called view_items that contains the order_id, product_id, quantity, unit_price, product_name, list_price. Name the columns as following orderID, productID, quantity, Price, product, list_price

```
CREATE OR REPLACE VIEW VIEW_ITEMS AS SELECT O.ORDER_ID AS ORDERID, P.PRODUCT_ID AS PRODUCTID, OI.QUANTITY, OI.UNIT_PRICE AS PRICE, P.PRODUCT_NAME AS PRODUCT, P.LIST_PRICE FROM ORDERS O, ORDER_ITEMS OI, PRODUCTS P WHERE O.ORDER_ID = OI.ORDER_ID AND OI.PRODUCT_ID = P.PRODUCT_ID;
```