# **Practical 6: CREATE SEQUENCE**

# **Learning objectives:**

Create SEQUENCE for automated numbering

Oracle Database 2 Day Developer's Guide

https://docs.oracle.com/en/database/oracle/oracle-database/19/tdddg/creating-managing-schema-objects.html#GUID-474CBF2A-BDBF-498E-98DA-16B59E4D8050

Oracle Database SQL Language Reference

https://docs.oracle.com/en/database/oracle/oracle-database/19/sqlrf/CREATE-SEQUENCE.html#GUID-E9C78A8C-615A-4757-B2A8-5E6EFB130571

# **Introduction**

```
CREATE SEQUENCE sequence
[INCREMENT BY n]
[START WITH n]
[{MAXVALUE n | NOMAXVALUE}]
[{MINVALUE n | NOMINVALUE}]
[{CYCLE | NOCYCLE}]
[{CACHE n | NOCACHE}];
```

- Automatically generates unique numbers
- Is typically used to create a primary key value
- A sequence is not associated with any particular table or column.
- Speeds up the efficiency of accessing sequence values when cached in memory
- NEXTVAL returns the next available sequence value. It returns a unique value every time it is referenced, even for different users.
- CURRVAL obtains the current sequence value.

#### Task:

Use Create SEQUENCE to create running numbers for the OrderNumber of the ORDERS table.

In the sample data provided for ORDERS table, the OrderNumber already in use are from 10100 to 10425, therefore the next order number should be from 10426 onwards.

## Step 1 : Create a sequence for ORDERS

## Step 2: Test the sequence number

To insert a new record into ORDERS using the running sequence ORDERNUMBER, the syntax is:

```
INSERT INTO ORDERS VALUES
```

(OrderNum Seq.nextval, followed by all other relevant data)

Create an order for customer 'Mini Classics'. Complete the order with your own relevant data. (You need to insert data into ORDERS and OrderDetails tables).

insert into orders values(OrderNum\_Seq.nextval, sysdate, '02-Aug-2021', NULL, 'In Process', NULL, 319);

Check your order to observe the running sequence.

## Exercise

Based on the amended database since Practical 5, write a procedure to produce the following:

```
--Sample report output.
                                 5
                     3
                             4
123456789012345678901234567890123456789012345678901234567890123456789012345678901
CUSTOMER'S MONTHLY ORDERS REPORT for the Month of [xxxxxxxxx] [Year No.]
Date Printed: xx/xx/xxxx
Customer No : [12345678901]
Customer Name : [LastName, FirstName
1. Order Date : dd/mm/yyyy
  FinalTotal : RM999,999.99
  GST Amount : RM99,999.99
2. Order Date : dd/mm/yyyy
  FinalTotal : RM999,999.99
  GST Amount : RM99,999.99
      1 2 3 4 5
12345678901234567890123456789012345678901234567890123456789012345678901234567890
Total Amount for the Month: RM9,999,999.99
Total GST payable : RM999,999.99
______
Customer No : [12345678901]
Customer Name : [LastName, FirstName
1. Order Date : dd/mm/yyyy
  FinalTotal : RM999,999.99
  GST Amount : RM99,999.99
2. Order Date : dd/mm/yyyy
  FinalTotal : RM999,999.99
  GST Amount : RM99,999.99
Total Amount for the Month: RM9,999,999.99
Total GST payable : RM999,999.99
_____
Total no. of customers for the Month: 9,999
Grand total spending from customers: RM9,999,999.99
Grand total of GST payable : RM999,999.99
[End of Report]
```