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Section: BT502

Date: October 04, 2020

Advanced Database

Hands-on Activity (Subqueries, Views, and Index)

2. Insert Data Text

```
■ MS SOL
 1 CREATE TABLE [Customers](
       [CustomerID] [varchar](50) NULL,
       [Cust_Name] [varchar](50) NULL,
       [Address] [varchar](50) NULL
6 CREATE TABLE [Items](
       [ItemID] [varchar](50) NULL,
       [ItemName] [varchar](50) NULL,
       [Price] [decimal](18, 2) NULL
11 CREATE TABLE [Orders](
       [OrderID] [varchar](50) NULL,
       [OrderDate] [date] NULL,
       [ItemID] [varchar](50) NULL,
      [CustomerID] [varchar](50) NULL
16);
17 INSERT [dbo].[Customers] ([CustomerID], [Cust_Name], [Address]) VALUES (N'Cust-1', N'Badang', N'Makati')
18 INSERT [dbo].[Customers] ([CustomerID], [Cust_Name], [Address]) VALUES (N'Cust-2', N'Hanzo', N'Taguig')
19 INSERT [dbo].[Customers] ([CustomerID], [Cust_Name], [Address]) VALUES (N'Cust-3', N'Lilia', N'Rizal')
20 INSERT [dbo].[Customers] ([CustomerID], [Cust_Name], [Address]) VALUES (N'Cust-4', N'Layla', N'Laguna')
21 INSERT [dbo].[Customers] ([CustomerID], [Cust_Name], [Address]) VALUES (N'Cust-5', N'Lesley', N'Laguna')
22 INSERT [dbo].[Customers] ([CustomerID], [Cust_Name], [Address]) VALUES (N'Cust-6', N'Balmond', N'Makati')
23 INSERT [dbo].[Customers] ([CustomerID], [Cust_Name], [Address]) VALUES (N'Cust-7', N'Chou', N'Navotas')
24 INSERT [dbo].[Customers] ([CustomerID], [Cust_Name], [Address]) VALUES (N'Cust-8', N'Eudora', N'Malabon')
25 INSERT [dbo].[Customers] ([CustomerID], [Cust_Name], [Address]) VALUES (N'Cust-9', N'Miya', N'Taguig')
26 INSERT [dbo].[Customers] ([CustomerID], [Cust_Name], [Address]) VALUES (N'Cust-10', N'Cecilion', N'Navotas')
27 INSERT [dbo].[Customers] ([CustomerID], [Cust_Name], [Address]) VALUES (N'Cust-11', N'Roger', N'Baguio')
28 INSERT [dbo].[Customers] ([CustomerID], [Cust_Name], [Address]) VALUES (N'Cust-12', N'Cong', N'Cebu')
29 INSERT [dbo].[Customers] ([CustomerID], [Cust_Name], [Address]) VALUES (N'Cust-13', N'Emman', N'Cebu')
30 INSERT [dbo].[Customers] ([CustomerID], [Cust_Name], [Address]) VALUES (N'Cust-14', N'Jerome', N'Baguio')
31 INSERT [dbo].[Customers] ([CustomerID], [Cust_Name], [Address]) VALUES (N'Cust-15', N'Gusion', N'Davao'
32 INSERT [dbo].[Customers] ([CustomerID], [Cust_Name], [Address]) VALUES (N'Cust-16', N'Lancelot', N'Iloilo')
33 INSERT [dbo].[Customers] ([CustomerID], [Cust_Name], [Address]) VALUES (N'Cust-17', N'Granger', N'Antipolo')
34 INSERT [dbo].[Customers] ([CustomerID], [Cust_Name], [Address]) VALUES (N'Cust-18', N'Irithel', N'Makati')
```

```
■ MS SQL
    INSERT [dbo].[Customers] ([CustomerID], [Cust_Name], [Address]) VALUES (N'Cust-18', N'Irithel', N'Makati'
     INSERT [dbo].[Customers] ([CustomerD], [Cust_Name], [Address]) VALUES (N'Cust-19', N'Alucard', N'Binondo')
INSERT [dbo].[Customers] ([CustomerD], [Cust_Name], [Address]) VALUES (N'Cust-20', N'Carmilla', N'Malabon');
   INSERT [dbo].[Customers] [[customertD], [cust_Name], [Address]) VALUES (N'LT-1', N'Samsung S19', CAST(32000.00 AS DECLMAL(18, 2)))
INSERT [dbo].[Items] ([ItemtD], [ItemName], [Price]) VALUES (N'LT-2', N'Samsung S10', CAST(40000.00 AS DECLMAL(18, 2)))
INSERT [dbo].[Items] ([ItemLD], [ItemName], [Price]) VALUES (N'LT-2'), N'Samsung S10', CAST(40000.00 AS DECLMAL(18, 2)))
INSERT [dbo].[Items] ([ItemLD], [ItemName], [Price]) VALUES (N'LT-3', N'Huawei P30', CAST(31000.00 AS DECLMAL(18, 2)))
INSERT [dbo].[ItemS] ([ItemLD], [ItemName], [Price]) VALUES (N'LT-5', N'Realme 6', CAST(31000.00 AS DECLMAL(18, 2)))
INSERT [dbo].[ItemS] ([ItemLD], [ItemName], [Price]) VALUES (N'LT-6', N'Realme 6' Pro', CAST(11000.00 AS DECLMAL(18, 2)))
INSERT [dbo].[ItemS] ([ItemLD], [ItemName], [Price]) VALUES (N'LT-6', N'Realme 6', CAST(31000.00 AS DECLMAL(18, 2)))
INSERT [dbo].[ItemS] ([ItemLD], [ItemName], [Price]) VALUES (N'LT-6', N'Riaomi Note 9', CAST(3000.00 AS DECLMAL(18, 2)))
INSERT [dbo].[ItemS] ([ItemLD], [ItemName], [Price]) VALUES (N'LT-6', N'Riaomi Note 9', CAST(31000.00 AS DECLMAL(18, 2)))
   INSERT [dbo].[Items] [[ItemID], [ItemMane], [Price]) VALUES (N'IT-8', N'Itomin Note 1', CAST(11000.00 AS DECIMAL(18, 2)))

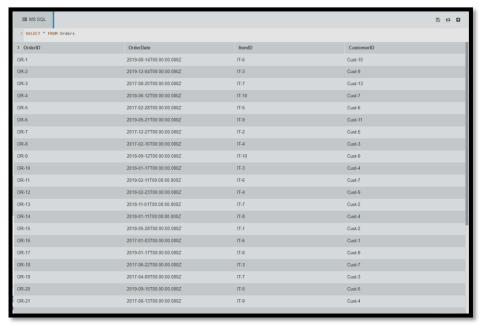
INSERT [dbo].[Items] ([ItemID], [ItemMane], [Price]) VALUES (N'IT-9', N'It V40', CAST(15000.00 AS DECIMAL(18, 2)))

INSERT [dbo].[Items] ([ItemID], [ItemMane], [Price]) VALUES (N'IT-10', N'It V50', CAST(23000.00 AS DECIMAL(18, 2)));

INSERT [dbo].[Orders] ([OrderDate], [ItemID], [UnderDate], [ItemID], [UnderDate], [ItemID], [UnderDate], [UnderDate]
    INSERT [dbo].[Orders] ([OrderDI], [OrderDate], [ItemID], [CustomerID]) VALUES (N'OR-2', CAST(N'2019-12-04' AS Date), N'IT-3', N'Cust-9')
INSERT [dbo].[Orders] ([OrderDI], [OrderDate], [ItemID], [CustomerID]) VALUES (N'OR-3', CAST(N'2017-08-20' AS Date), N'IT-7', N'Cust-13')
    INSERT [dob.] [Orders] ([OrderDate], [ItemID], [CustomerID]) VALUES (N'OR-4', CAST(N'2018-06-12' AS Date), N'IT-10', N'Cust-2')

INSERT [dbo].[Orders] ([OrderDate], [ItemID], [CustomerID]) VALUES (N'OR-5', CAST(N'2017-02-28' AS Date), N'IT-5', N'Cust-6')

INSERT [dbo].[Orders] ([OrderDate], [ItemID], [CustomerID]) VALUES (N'OR-6', CAST(N'2019-05-21' AS Date), N'IT-9', N'Cust-11')
    INSERT [dbo].[Orders] ([OrderID], [OrderDate], [ItemID], [CustomerID]) VALUES (N'OR-7', CAST(N'2017-12-27' AS Date), N'IT-2', N'Cust-5') INSERT [dbo].[Orders] ([OrderID], [OrderDate], [ItemID], [CustomerID]) VALUES (N'OR-8', CAST(N'2017-02-10' AS Date), N'IT-4', N'Cust-3')
    INSERT [dbo].[Orders] ([OrderDate], [OrderDate], [ItemID], [CustomerID]) VALUES (N'OR-9', CAST(N'2018-09-12' AS Date), N'IT-10', N'Cust-9']
INSERT [dbo].[Orders] ([OrderDate], [OrderDate], [ItemID], [CustomerID]) VALUES (N'OR-10', CAST(N'2018-01-17' AS Date), N'IT-3', N'Cust-4']
    INSERT [dbo].[Orders] ([OrderDate], [OrderDate], [ItemID], [CustomerID]) VALUES (N'OR-11', CAST(N'2019-02-11' AS Date), N'IT-6', N'Cust-7' INSERT [dbo].[Orders] ([OrderDate], [OrderDate], [ItemID], [CustomerID]) VALUES (N'OR-12', CAST(N'2018-02-23' AS Date), N'IT-4', N'Cust-9';
    INSERT [dbo.[Orders] ([OrderD1], [OrderDate], [ItemID], [CustomerID]) VALUES (N'OR-13', CAST(N'2018-11-01' AS Date), N'IT-7', N'Cust-2''
INSERT [dbo].[Orders] ([OrderD1], [OrderDate], [ItemID], [CustomerID]) VALUES (N'OR-14', CAST(N'2018-01-11' AS Date), N'IT-8', N'Cust-4''
INSERT [dbo].[Orders] ([OrderD1], [OrderDate], [ItemID], [CustomerID]) VALUES (N'OR-14', CAST(N'2018-01-11' AS Date), N'IT-8', N'Cust-4''
      INSERT [dbo].[Orders] ([OrderID], [OrderDate], [ItemID], [CustomerID]) VALUES (N'OR-15', CAST(N'2018-05-28' AS Date), N'IT-1', N'Cust-2'
     INSERT [dbo].[Orders] ([OrderID], [OrderDate], [ItemID], [CustomerID]) VALUES (N'OR-16', CAST(N'2017-01-03' AS Date), N'IT-6', N'Cust-1'
      INSERT [dbo].[Orders] ([OrderID], [OrderDate], [ItemID], [CustomerID]) VALUES (N'OR-17', CAST(N'2019-01-17' AS Date), N'IT-8', N'Cust-9'
    INSERT [dbo].[Orders] ([OrderDate], [OrderDate], [ItemID], [CustomerID]) VALUES (N'OR-18', CAST(N'2017-06-22' AS Date), N'IT-3', N'Cust-7']
INSERT [dbo].[Orders] ([OrderDate], [OrderDate], [ItemID], [CustomerID]) VALUES (N'OR-19', CAST(N'2017-04-09' AS Date), N'IT-7', N'Cust-3')
     INSERT [dbo].[Orders] ([OrderD], [OrderDate], [ItemID], [CustomerID]) VALUES (N'OR-20', CAST(N'2019-09-15' AS Date), N'IT-5', N'Cust-5')
INSERT [dbo].[Orders] ([OrderD], [OrderDate], [ItemID], [CustomerID]) VALUES (N'OR-21', CAST(N'2017-08-13' AS Date), N'IT-9', N'Cust-4');
```

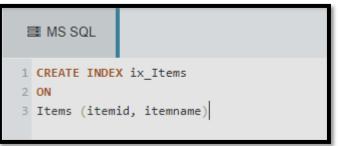


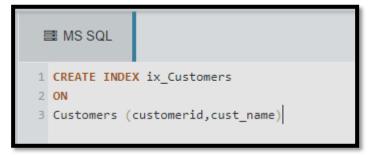




3. Create an index on the customers table with the following columns: *CustomerID, Cust_Name*. Do the same for the tables, Orders, and Items. With the following columns: *ItemID, CustomerID, OrderID, ItemName*.

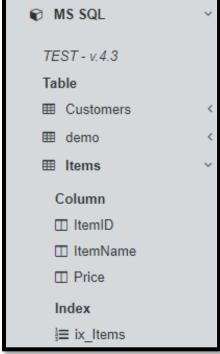


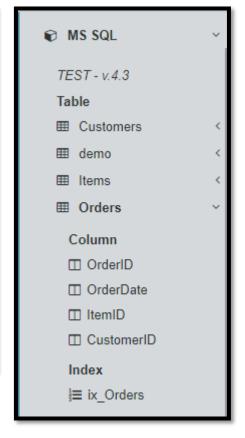




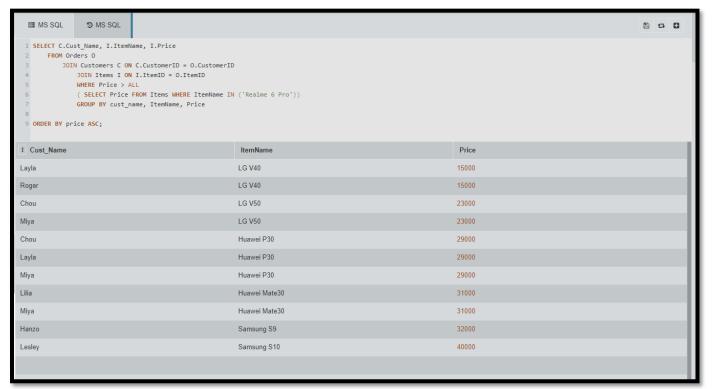
4. Expand the table tab in left-side corner to check if the newly created index exists in the database



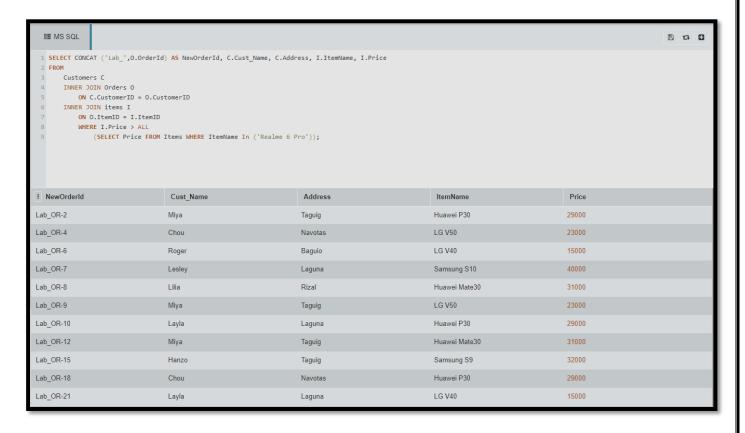




5. Create a subquery that will return the customers who purchased an item that is more expensive that Badangs's purchased item.



6. Create a subquery in the SELECT clause that will add a temporary column named 'New Orderld' and modify the returning characters/text of OrderlD to 'Lab_OR--##'.



7. Create a view named 'Subqueries_Views' using the data from the table/output above.

```
MS SQL
1 CREATE VIEW Subqueries_View
2 AS
3 SELECT CONCAT ('Lab_', O.OrderID) AS NewOrderID, C.Cust_Name, C.Address, I.ItemName, I.Price
4 FROM
5
      Customers C
6
      INNER JOIN Orders O
7
          ON C.CustomerID = O.CustomerID
8
      INNER JOIN items I
9
          ON O.ItemID = I.ItemID
10
          WHERE I.Price > ALL
               ( SELECT Price FROM Items WHERE ItemName IN ('Realme 6 Pro'));
```

8. Using IN operator, create a query that retrieves all the data with returning address Laguna, Taguig, Navotas, From the Newly created view.

