**SHEPHERD MICHAEL MUNEMO ES SQL Assessment 2022**

Assume the following tables:

|  |  |  |  |
| --- | --- | --- | --- |
| Customer | Stock | Sale | SaleItem |
| CustomerId | StockId | SaleId | SaleItemId |
| Firstname | Description | CustomerId | SaleId |
| Surname | Quantity | CreateDatetime | StockId |
| CustomerStatusId | StockStatusId | SaleStatus | Quantity |
| ChannelId | StockGroupId | CompleteDatetime | Price |
| CreateDateTime |  | SaleChannelId | Tax |
| LevelId |  |  | Discount |

Write SQL for the following queries:

1. **A list of clients with a CustomerStatusId of 1, ordered by Surname then Firstname. Columns required are Surname, Firstname, CustomerStatusId and CreateDateTime.**

SELECT Surname,

Firstname,

CustomerStatusId,

CreateDateTime

FROM Customer

WHERE CustomerStatusId = 1

ORDER BY Surname,

FirstName;

1. **A list of stock items that were sold in January 2018. Stock Description is the only required field.**

SELECT DISTINCT [Description]

FROM Stock

WHERE StockId IN (SELECT DISTINCT StockId

FROM SaleItem

WHERE SaleId IN (SELECT SaleId

FROM Sale

WHERE CreateDateTime BETWEEN

'2018-01-01' AND '2010-02-01'))

1. **A list of stock items that were not sold in January 2018. Stock Description is the only required field.**

SELECT [Description]

FROM Stock s

WHERE StockId NOT IN (SELECT DISTINCT StockId

FROM SaleItem

WHERE SaleId IN (SELECT SaleId

FROM Sale

WHERE CreateDateTime BETWEEN

'2018-01-01' AND '2010-02-01'))

1. **A list of the top 10 highest selling stock items for January 2018. Fields required are Description, Quantity Sold.**

SELECT TOP 10 [Description],

QuantitySold AS [Quantity Sold]

FROM Stock

INNER JOIN (SELECT DISTINCT StockId,

Sum(Quantity) AS QuantitySold

FROM SaleItem

WHERE SaleId IN (SELECT Saleid

FROM Sale

WHERE CreateDateTime BETWEEN

'2018-01-01' AND '2010-02-01')

GROUP BY StockId)AS T1

ON Stock.StockId = T1.StockId;

1. **A list of the top 10 customers for January 2018 in terms of sale value. Fields required are Firstname, Surname, Number of Sales, Value of Sales.**

--Quantity Price - Discount = Value of each sale

--Assumptions : Tax is a decimal = 0,15

--Assumption 2 : Discount is a decimal e.g 0,1

--Assumption 3 : Discount is calculated before tax

GO

CREATE PROCEDURE Sp\_Top10CustomersForJanuary2018

AS

BEGIN

--Create a temporary table

CREATE TABLE #salevalue

(

saleId INT NOT NULL,

saleItemId INT NOT NULL,

[value] DECIMAL NOT NULL

)

DECLARE @SaleItemId INT,

@StockId INT,

@Quantity INT,

@Value DECIMAL

DECLARE sale\_cursor CURSOR FOR

SELECT DISTINCT saleitemid

FROM saleitem

WHERE saleId IN (SELECT SaleId

FROM Sale

WHERE CreateDateTime BETWEEN

'2018-01-01' AND '2010-02-01')

OPEN sale\_cursor

FETCH next FROM sale\_cursor INTO @SaleItemId

WHILE @@FETCH\_STATUS = 0

BEGIN

INSERT INTO #salevalue

(SaleId,

SaleItemId,

[value])

VALUES ((SELECT SaleId

FROM SaleItem

WHERE SaleItemId = @SaleItemId),

@SaleItemId,

-- Calculate the value of each item

(SELECT ( Quantity \* ( Price - ( Discount \* Price ) ) \* ( 1 + Tax ))

FROM SaleItem

WHERE SaleItemId = @SaleItemId))

FETCH next FROM Sale\_cursor INTO @SaleItemId

END

CLOSE Sale\_cursor

DEALLOCATE Sale\_cursor

SELECT TOP 10 Firstname,

Surname,

NumberOfSales AS [Number of Sales],

ValueOfSales AS [Value Of Sales]

FROM Customer c

INNER JOIN (SELECT CustomerId, Count(SaleId) AS NumberOfSales

FROM Sale

WHERE SaleId IN (SELECT SaleId

FROM Sale

WHERE CreateDateTime BETWEEN

'2018-01-01' AND '2010-02-01')

)

AS T1

ON c.CustomerId = T1.CustomerId

INNER JOIN (SELECT CustomerId,

Sum(SaleTotal) AS ValueOfSales

FROM (SELECT CustomerId,

s.SaleId,

SaleTotal

FROM (SELECT SaleId,

Sum(Value) AS SaleTotal

FROM #salevalue) AS Ts

INNER JOIN Sale s

ON s.SaleId = Ts.SaleId) AS tt)

AS

T2

ON c.CustomerId = T2.CustomerId

ORDER BY [Value Of Sales] DESC

DROP TABLE #salevalue

END;