**Section : 03**

**Name : Sushma Suttakote Parameshappa**

**Challenge 1: Retrieve Product Information**

**Que 1:**

-- Retrieve the name and approximate weight of each product

SELECT ProductID,

UPPER(Name),

ROUND(Weight, 0) AS ApproxWeight

FROM AdventureWorksLT2012.SalesLT.Product;

**Que 2:**

-- Retrieve the year and month in which products were first sold

SELECT ProductID,

UPPER(Name) AS Name,

ROUND(Weight, 0) AS ApproxWeight,

YEAR(SellStartDate) AS SellStartYear,

DATENAME(MM, SellStartDate) AS SellStarMonth

FROM AdventureWorksLT2012.SalesLT.Product;

**Que 3:**

--Extract product types from product numbers

SELECT ProductID,

UPPER(Name) AS Name,

ROUND(Weight, 0) AS ApproxWeight,

YEAR(SellStartDate) AS SellStartYear,

DATENAME(MM, SellStartDate) AS SellStarMonth,

SUBSTRING(ProductNumber, 1, 2) AS ProductType

FROM AdventureWorksLT2012.SalesLT.Product;

**Que4:**

--Retrieve only products with a numeric size

SELECT ProductID,

UPPER(Name) AS Name,

ROUND(Weight, 0) AS ApproxWeight,

YEAR(SellStartDate) AS SellStartYear,

DATENAME(MM, SellStartDate) AS SellStarMonth,

SUBSTRING(ProductNumber, 1, 2) AS ProductType,

size AS Size

FROM AdventureWorksLT2012.SalesLT.Product

WHERE size LIKE '[0-9][0-9]';

**Challenge 2: Rank Customers by Revenue**

**Que 1:**

--Retrieve companies ranked by sales totals

SELECT A.CompanyName,

B.TotalDue,

RANK() OVER(ORDER BY TotalDue DESC) AS "Rank"

FROM AdventureWorksLT2012.SalesLT.Customer A

JOIN AdventureWorksLT2012.SalesLT.SalesOrderHeader B

ON A.CustomerID = B.CustomerID;

**Challenge 3: Aggregate Product Sales**

**Que 1:**

--Retrieve total sales by product

SELECT A.Name,

SUM(B.LineTotal) LineTotal

FROM AdventureWorksLT2012.SalesLT.Product A

JOIN AdventureWorksLT2012.SalesLT.SalesOrderDetail B

ON A.ProductID = B.ProductID

GROUP BY A.Name

ORDER BY LineTotal DESC;

**Que 2:**

--Filter the product sales list to include only products that cost over $1,000

SELECT A.Name,

SUM(B.LineTotal) LineTotal

FROM AdventureWorksLT2012.SalesLT.Product A

JOIN AdventureWorksLT2012.SalesLT.SalesOrderDetail B

ON A.ProductID = B.ProductID

Where A.ListPrice>1000

GROUP BY A.Name

ORDER BY LineTotal DESC;

**Que 3:**

--Filter the product sales groups to include only total sales over $20,000

SELECT A.Name,

SUM(B.LineTotal) LineTotal

FROM AdventureWorksLT2012.SalesLT.Product A

JOIN AdventureWorksLT2012.SalesLT.SalesOrderDetail B

ON A.ProductID = B.ProductID

Where A.ListPrice>1000

GROUP BY A.Name

HAVING SUM(B.LineTotal) >20000

ORDER BY LineTotal DESC;