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Wroclaw University of Technology

and

Telecommunications

**Data Warehouses Report 7**

Members:

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**TASK 1:**

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**Task 2:**

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**AVG Weight:**

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**Results:**

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**Task 3:**

SELECT

[Measures].[Customer ID Distinct Count] ON COLUMNS,

[DIM Customer].[Country Region Code].MEMBERS ON ROWS

FROM [Adventure Works2019]

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**Task 4:**

WITH

MEMBER [Measures].[Distinct Customers 2012] AS

SUM(

{ [DIM TIME].[Year].&[2012] },

[Measures].[Customer ID Distinct Count]

)

MEMBER [Measures].[Distinct Customers 2013] AS

SUM(

{ [DIM TIME].[Year].&[2013] },

[Measures].[Customer ID Distinct Count]

)

SELECT

{

[Measures].[Distinct Customers 2012],

[Measures].[Distinct Customers 2013]

} ON COLUMNS,

[DIM CUSTOMER].[Country Region Code].MEMBERS ON ROWS

FROM [Adventure Works2019]

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**Task 5:**

SELECT

[Measures].[Order Qty] ON COLUMNS,

([DIM PRODUCT].[Category Name].MEMBERS \*

[DIM PRODUCT].[Sub Category Name].MEMBERS \*

[DIM CUSTOMER].[Country Region Code].MEMBERS) ON ROWS

FROM [Adventure Works2019**]**

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**Task 6:**

SELECT

[Measures].[Order Qty] ON COLUMNS,

ORDER(

FILTER(

[DIM PRODUCT].[Sub Category Name].MEMBERS,

[Measures].[Order Qty] >= 10

),

[Measures].[Order Qty],

DESC

) ON ROWS

FROM [Adventure Works2019]

WHERE

[DIM PRODUCT].[Category Name].MEMBERS \*

[DIM CUSTOMER].[Country Region Code].MEMBERS

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**Task 7:**

**3-Month:**

WITH

MEMBER [Measures].[3-Month Moving Avg] AS

Avg(

LastPeriods(3, [Order Date].[Month].CurrentMember),

[Measures].[Line Total]

)

SELECT

{[Measures].[Line Total], [Measures].[3-Month Moving Avg]} ON COLUMNS,

[Order Date].[Month].[Month].MEMBERS ON ROWS

FROM [Adventure Works2019]

WHERE

[Order Date].[Year].&[2012] : [Order Date].[Year].&[2013]A screenshot of a computer

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**6-Month:**

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**Task 8:**

WITH

MEMBER [Measures].[MonthName] AS

[Order Date].[Month].CurrentMember.Member\_Caption

SELECT

{ [Measures].[Order Qty], [Measures].[MonthName] } ON COLUMNS,

HEAD(

ORDER(

DESCENDANTS([Order Date].[Year].&[2013], [Order Date].[Day], SELF),

[Measures].[Order Qty], DESC

),

1

) ON ROWS

FROM [Adventure Works2019]

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**Task 9:**

**Page 1: Sales Performance Overview**

* **Visualizations:**
  + **Line Chart: Display monthly sales trends over the current year.**
  + **Pie Chart: Show sales distribution by product category.**

**Business Justification:** These visualizations provide a clear overview of sales performance and product popularity, helping managers make informed decisions about inventory and marketing strategies.

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**Page 2: Customer Insights**

* **Visualizations:**
  + **Bar Chart: Display top 10 customers by sales.**
  + **Tree Map: Show regions with color intensity based on total sales.**

**Business Justification:** Understanding customer and regional sales distribution assists in targeting marketing efforts and optimizing resource allocation.

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**Page 3: Salesperson Performance**

* **Visualizations:**
  + **Funnel Chart:** Sales funnel by different sales stages.
  + **Data Table:** Include detailed performance metrics for each salesperson.
* **Data Source:** MDX query to fetch aggregated data from the DIM\_SALESPERSON and related sales figures.
* **Business Justification:** Evaluating individual performance helps in identifying training needs and awarding incentives based on performance metrics.

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