### PowerBI Practice Session\_1

### Data set:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **OrderID** | **Product** | **Category** | **Region** | **SalesDate** | **Quantity** | **UnitPrice** |
| 1001 | Laptop | Electronics | North | 7/1/2024 | 2 | 55000 |
| 1002 | T-Shirt | Clothing | South | 7/2/2024 | 5 | 400 |
| 1003 | Headphones | Electronics | West | 7/3/2024 | 3 | 2500 |
| 1004 | Rice Bag | Groceries | East | 7/4/2024 | 10 | 600 |
| 1005 | Shoes | Clothing | South | 7/5/2024 | 2 | 2000 |
| 1006 | Biscuits | Groceries | North | 7/6/2024 | 20 | 30 |

### ****A. Data Understanding****

1. How many total rows are there in the dataset?

Click **Table visual** → Drag any column (e.g., Product)

Count the rows = 6

1. What are the different product categories in the dataset?

Click **Slicer** → Drag Category to slicer

You’ll see: **Clothing, Electronics, Groceries**

1. How many different regions are included?

Use slicer on Region → Result: **North, South, East, West**

### ****B. Filtering & Sorting****

1. Filter the data to show only **products sold in the South** region.

Drag **Table visual** → Add Product & Region

Add **Slicer** → Add Region → Select **South**

Result: T-Shirt, Shoes

1. Filter the data to show only **Clothing** products.

Slicer: Add Category → Choose **Clothing**

Table shows: T-Shirt, Shoes

1. Sort the dataset by **SalesDate** in ascending order.

In Table visual:

Click column header Date of Sale → Click again to sort Ascending

1. Sort the data by **UnitPrice** in descending order.

In Table visual:

* Click UnitPrice column twice → Sorted: Laptop → Headphones → Shoes…

### ****C. Table Visual Practice****

1. Create a table showing **Product, Category, and Region**.

Insert **Table visual**

Add fields: Product, Category, Region

1. Create a table showing only **products sold in the North region**.

Add **Slicer** → Drag Region

Select **North**

Table shows: Laptop, Biscuits

1. Show only the **products with quantity greater than 3**.

Table → Add Product and Quantity

Use filter pane (Visual level filter) → Quantity > 3

Result: T-Shirt, Rice Bag, Biscuits

### ****D. Charts Practice****

1. Create a **bar chart** to show total quantity sold by **Region**.

Visual: **Clustered Bar Chart**

Axis: Region

Value: Quantity

1. Create a **column chart** to show quantity sold by **Product**.

Visual: **Clustered Column Chart**

Axis: Product

Value: Quantity

1. Create a **pie chart** to show category-wise distribution of quantity.

Visual: **Pie Chart**

Legend: Category

Value: Quantity

1. Create a **line chart** with **SalesDate on X-axis** and **Quantity on Y-axis** to show quantity sold over time.

Visual: **Line Chart**

X-Axis: Date of Sale

Y-Axis: Quantity

### ****E. Slicers & Filters****

1. Add a **slicer** for Region and explore how visuals change.

Add **Slicer**

Field: Region

1. Add a **slicer** for Category and use it to display only Groceries or Electronics.

Add **Slicer**

Field: Category

1. Add a slicer for **SalesDate** to show sales on selected dates.

Add **Slicer**

Field: Date of Sale

### ****F. Power Query (Transform Data)****

1. Rename the column SalesDate to Date of Sale.

Click **Home → Transform Data**

In Power Query: Right-click on SalesDate → Rename → Type Date of Sale

Click **Close & Apply**

1. Change the data type of Quantity and UnitPrice to numbers.

In Power Query:

Click on Quantity column → Set data type to **Whole Number**

Click on UnitPrice column → Set data type to **Decimal Number**

Click **Close & Apply**

1. Filter the table to show only orders with **Quantity more than 5**.

In Power Query:

Click filter arrow on Quantity → Select **Number Filters > Greater Than** → Enter 5

Result: Shows Rice Bag (10) & Biscuits (20)

1. Remove the column OrderID (if not needed).

In Power Query:

Right-click OrderID column → Click **Remove**

Click **Close & Apply**

1. Create a **duplicate query** and filter it to show only **Electronics**.

In Power Query:

Right-click table name (left pane) → **Duplicate**

Select duplicated query → Filter Category column → Choose **Electronics**

Result: New table with Laptop & Headphones

### ****G. Real-Time Analysis Questions (With Visuals)****

1. Which **region** sold the **highest number of products**?

|  |
| --- |
| Bar chart (Region vs Quantity) |

|  |
| --- |
| **North (22 items)** |

1. Which **product** has the **lowest unit price**?

|  |
| --- |
| Table sorted by UnitPrice ascending |

|  |
| --- |
| **Biscuits (₹30)** |

1. On which date was the **highest quantity** of items sold?

|  |
| --- |
| Line chart (SalesDate vs Quantity) |

|  |
| --- |
| **7/6/2024 (20 items)** |