Q1. Difference between Basic Filter, Advanced Filter, and Slicer in Power BI

Answer:

Power BI provides multiple filtering mechanisms to control and refine data displayed in reports. These include Basic Filters, Advanced Filters, and Slicers.

1. Basic Filter

Basic Filter allows users to filter data using simple selection methods such as selecting one or more values from a list or applying basic conditions like “equals”, “contains”, or “does not contain”.

It is easy to apply and is commonly used when filtering requirements are straightforward.

2. Advanced Filter

Advanced Filter is used when complex filtering logic is required. It allows the use of multiple conditions combined using logical operators such as AND / OR.

This type of filter is helpful when the dataset is large and requires precise filtering.

3. Slicer

A slicer is a visual filtering component that appears directly on the report canvas. It enhances user interaction by allowing end-users to dynamically filter data without opening the filter pane.

Conclusion

Basic and Advanced filters are mainly used by report designers, whereas slicers are designed for end-users to interact with reports easily.

Q2. Apply a Basic Filter to display only sales data for the year 2023

Answer:

To analyze sales performance for a specific year, a basic filter can be applied.

Steps:

1. Open Power BI Desktop.
2. Select a visual containing sales data.
3. Go to the Filters pane.
4. Drag the **Year** field into the Visual/Page filter area.
5. Select **Basic Filtering**.
6. Choose the year **2023**.

Result:

Only sales records from the year 2023 are displayed, helping in focused yearly analysis.

Q3. Create a Pie Chart of Sales by Product and add a Slicer for Region

Answer:

A pie chart helps visualize the proportional contribution of each product to total sales.

Steps:

1. Insert a Pie Chart visual.
2. Add **Product** to the Legend field.
3. Add **Sales** to the Values field.
4. Insert a Slicer visual.
5. Add **Region** to the slicer.

Explanation:

The pie chart shows product-wise sales distribution, while the region slicer allows users to filter the chart dynamically based on selected regions.

Q4. What is a Visual-Level Filter? How is it different from Page and Report-Level Filters?

Answer:

- **Visual-Level Filter:**
- Applies only to a single selected visual and does not affect other visuals.
- **Page-Level Filter:**
- Applies to all visuals on a single report page.
- **Report-Level Filter:**
- Applies to all visuals across all pages of the report.

Example:
If only one chart needs to show sales for India, a Visual-Level filter is used.

Q5. Apply a Report-Level Filter to show sales data for India

Answer:

Steps:

1. Open the Filters pane.
2. Drag **Country** into the Report-Level filter section.
3. Select **India**.

Result:

All visuals in the report now display sales data related only to India.

Q6. Explain the role of Drill-Down in Power BI

Answer:

Drill-Down is a powerful feature that allows users to explore data at deeper levels within the same visual.
Explanation:
For example, users can drill down from Year-level sales data to Month or Day-level data. This helps identify trends, seasonality, and performance patterns in detail.
Benefit:
Drill-down improves analytical depth without cluttering the report with multiple visuals.

Q7. Create a hierarchy: Country → Region → Product Category

Answer:

Steps:

1. Right-click on **Country** → Select *Create Hierarchy*.
2. Add **Region** and **Product Category** to the hierarchy.
3. Use this hierarchy in a chart.
4. Enable drill-down functionality.

Explanation:

Hierarchies allow structured navigation through data and simplify multi-level analysis.

Q8. Implement Drill-Through for Product-wise detailed analysis

Answer:

Drill-through enables users to navigate from a summary report to a detailed report page.

Steps:

1. Create a new report page.
2. Add **Product** to the Drill-through field.
3. Design visuals showing region-wise or time-based sales.
4. Right-click on a product in the main report and select Drill-through.

Result:

Users can view detailed information related to a specific product.

Q9. Add a slicer for Product Category and analyze its effect

Answer:

Adding a slicer for Product Category allows users to filter the entire report based on selected categories.
Observation:
When a category is selected, all visuals automatically update, improving focus and clarity in analysis.

Q10. Difference between Drill-Down and Drill-Through with real-world example

Answer:

- **Drill-Down:**
- Used to explore data levels within the same visual (e.g., Year → Month).
- **Drill-Through:**
- Used to navigate to a separate detailed report page.

Example:
Clicking on yearly sales to see monthly sales = Drill-down.
Right-clicking on a product to open its detailed page = Drill-through.

Q11. Analyze sales trend using Year → Quarter → Month → Day hierarchy

Answer:

Steps:

1. Create a Date hierarchy.
2. Use a Line Chart.
3. Enable Drill-Down.
4. Navigate through different time levels.

Explanation:

This helps identify seasonal trends, peak sales periods, and daily fluctuations.

Q12. Apply a Measure-Based Filter for sales above ₹50,000

Answer:

DAX Measure:

Total Sales = SUM(Sales_dataset[Sales])

Steps:

1. Create the measure.
2. Add it to the Filters pane.
3. Set condition **Total Sales > 50000**.

Result:

Only high-value products or regions are displayed.

Q13. Explain the “Keep All Filters” option in Drill-Through

Answer:

The “Keep All Filters” option ensures that all applied filters remain active when navigating to a drill-through page.
Importance:
It maintains analytical context and avoids confusion caused by data reset.

Q14. Create a custom Drill-Through page for Region-wise sales trends

Answer:

Steps:

1. Create a new report page.
2. Add **Region** to Drill-through field.
3. Insert a Line Chart showing Sales vs Time.
4. Enable “Keep All Filters”.

Result:

Users can view region-specific sales trends over time.

Q15. Design a fully interactive Power BI dashboard

Answer:

The final dashboard includes:

- Multiple slicers
- Visual, page, and report-level filters
- Drill-down hierarchies
- Drill-through pages

Conclusion:

This interactive dashboard enhances decision-making by allowing users to explore data dynamically and efficiently.