

# 21 DAYS POWER BI DASHBOARD CHALLENGE

## OBJECTIVES OF CHALLENGE

- Learn how to connect and clean live datasets in Power BI.
  - Understand how to model data with relationships and schema.
  - Practice writing basic to advance DAX formulas for analysis and insights.
  - Gain skills to design interactive and visually appealing dashboards.
  - Learn how to document, publish, and present a complete Power BI project.
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## LIVE DATASETS:

- Datagov.in- <https://www.data.gov.in/catalogs>
  - Hubwise Data Hubà [https://hub.huwise.com/explore/?orderBy=updated\\_at+DESC](https://hub.huwise.com/explore/?orderBy=updated_at+DESC)
  - Open City Urban Data Portalà <https://data.opencity.in/dataset>
  - <https://mavenanalytics.io/data-playground>
  - <https://www.sec.gov/data-research/sec-markets-data/financial-statement-data-sets>
  - [\*\*BSE SENSEX Stock Market Index\*\*](#)
  - [\*\*National Commodity & Derivatives Exchange Limited \(NCDEX\)\*\*](#)
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## TASK 1 – DATASET SELECTION & IMPORT

- Choose one dataset from the given list.
  - Import data into Power BI Desktop (via Web).
  - *Task:* Verify data is loaded correctly.
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## TASK 2 – DATA CLEANING (POWER QUERY)

- Detect and remove duplicates or missing values.
- Standardize column names and data types.

- Perform necessary transformations (split, merge, replace values).
  - Task: Prepare a clean dataset for modelling.
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## TASK 3 – DATA MODELING

- Identify Fact table(s) and Dimension table(s).
  - Build relationships (one-to-many / many-to-one).
  - Check cardinality and cross-filter direction.
  - Task: Create a clear and correct data model.
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## TASK 4 – BASIC DAX MEASURES

- Create aggregation measures such as:
    - **SUM** → total of a numeric column
    - **AVERAGE** → mean value of a numeric column
    - **COUNT / COUNTROWS** → number of records
    - **MIN / MAX** → smallest and largest values
  - Task: Use these measures in simple visuals (Cards, Tables, Charts).
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## TASK 5 – ADVANCED DAX

- Create measures using **time intelligence functions**.
  - Create measures for **comparisons across time periods**.
  - Create measures to calculate **growth or percentage change**.
  - Create measures to perform **ranking and top N analysis**.
  - Task: Develop at least 3–5 advanced measures and apply them in visuals.
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## TASK 6 – DASHBOARD VISUALIZATION (PART 1)

- Create visuals using:

- Bar, Column, Pie, Donut
  - Line, Area, Scatter
  - KPI & Gauge Cards
  - *Task:* Show overall key metrics and trends.
- 

## TASK 7 – DASHBOARD VISUALIZATION (PART 2)

- Add visuals:
    - Table & Matrix
    - Map, Tree Map, Combo Chart
  - Apply **conditional formatting** and **data bars**.
  - Create **hierarchies** (e.g., Year → Quarter → Month).
  - *Task:* Build detailed visuals with drill-down capability.
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## TASK 8 – DASHBOARD VISUALIZATION (PART 3)

- Enhance dashboard with:
    - Filters & Slicers
    - Drill-downs
    - Bookmarks & Buttons for navigation
  - *Task:* Make the dashboard interactive and user-friendly.
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## TASK 9 – FINAL DASHBOARD DESIGN & PUBLISHING

- Apply **color themes, alignment, and storytelling flow**.
  - Add **titles, legends, and tooltips** for clarity.
  - Publish the dashboard to **GitHub / shared drive**.
  - *Task:* Produce a professional-quality dashboard.
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## **TASK 10 – DOCUMENTATION & SUBMISSION**

- Document your project (Word/PDF) including:
  1. About the dataset chosen
  2. Data cleaning steps
  3. Data model (with screenshot)
  4. DAX measures created
  5. Insights discovered
- Submit final deliverables:
  - Power BI file (.pbix)
  - Exported dashboard (.pdf)
  - Documentation/ReadMe file uploaded to GitHub

*“Master Power BI, tell powerful data stories, and level up as a confident data analyst! ”*

## **POWER BI BASICS & ECOSYSTEM**

**Q1.** Which of the following is **NOT** a part of the Power BI ecosystem?

- A) Power BI Service
  - B) Power BI Desktop
  - c) Power BI Compiler**
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**Q2.** What is the **primary function of Power BI Service** (PowerBI.com)?

- A) Data modeling and creating relationships
  - B) Data visualization, collaboration, and cloud hosting of reports**
  - C) Data extraction and transformation
  - D) Installing custom connectors for SQL Server
- 

**Q3.** Which of the following scenarios is **best suited for Power BI Service** instead of Power BI Report Server?

- A) A government agency with strict on-premises data regulations
  - B) A multinational company requiring cloud collaboration across regions**
  - C) A hospital needing local-only report hosting for compliance reasons
  - D) An organization with zero internet access
- 

**Q4.** In the Power BI ecosystem, **Power BI Desktop** is mainly used for:

- A) Hosting dashboards for end-users
  - B) Creating and designing reports, data modeling, and DAX calculations**
  - C) Real-time collaboration and publishing dashboards
  - D) Automating refresh schedules for reports
-

**Q5.** In the Power BI ecosystem, where are **workspaces** primarily managed?

- A) Power BI Desktop
  - B) Power BI Service**
  - C) Power BI Gateway
  - D) Power Query Editor
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**Q6.** Which of the following is **NOT one of the three main views** in Power BI Desktop (left navigation pane)?

- A) Report View
  - B) Data View
  - C) Model View
  - D) Service View**
- 

**Q7.** In Power BI Desktop, the **Fields pane** is primarily used for:

- A) Managing applied steps in data transformation
  - B) Adding fields to visuals, measures, and hierarchies**
  - C) Controlling refresh schedules for datasets
  - D) Defining workspace permissions
- 

**Q8.** In **Model View**, you can:

- A) Change visual formatting for charts
  - B) Define relationships between tables**
  - C) Apply data type changes at source level
  - D) Create dashboards for publishing
- 

**Q9.** Which feature in the Power BI **Report View** enables drilling down into hierarchical data (e.g., Year → Quarter → Month)?

- A) Bookmarks
- B) Drill-through**

C) Hierarchies

D) Filters pane

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**Q10.** The **Visualizations** pane in Power BI allows you to:

A) Create custom queries in M

**B) Select chart types and customize formatting**

C) Connect to SQL Server and fetch tables

D) Configure scheduled refresh in Service

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## **POWER QUERY – DATA PREPARATION & TRANSFORMATION**

**Q1.** When connecting to a JSON API, which step in **Power Query** is essential to flatten nested structures into a table?

- A) Create relationships in Model View
  - B) Use “To Table” and “Expand” transformations**
  - C) Write DAX calculated tables
  - D) Use DirectQuery mode
- 

**Q2.** Which Power BI feature allows connecting to multiple files (e.g., monthly sales CSVs) in a folder and automatically combining them into one dataset?

- A) Append Queries in Power Query
  - B) Combine Files (Folder Connector)**
  - C) Dataflows in Power BI Service
  - D) Relationships in Model View
- 

**Q3.** Power Query in Power BI is mainly used for:

- A) Data modeling and DAX calculations
  - B) Data cleaning, transformation, and shaping before loading into the model**
  - C) Real-time data visualization
  - D) Scheduling refreshes in Power BI Service
- 

**Q4.** Power Query transformations are written in which language?

- A) SQL
- B) M (Mashup Language)**
- C) DAX
- D) C#

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**Q5.** In Power Query, the **Applied Steps pane** records:

- A) Visual formatting changes in Report View
  - B) Each transformation step applied to the dataset**
  - C) Relationships between tables
  - D) Scheduled refresh frequency
- 

**Q6.** Which transformation in Power Query allows creating **aggregations (sum, avg, count, etc.)?**

- A) Append Queries
  - B) Group By**
  - C) Pivot Columns
  - D) Replace Values
- 

**Q7.** When importing a CSV file into Power Query, Power BI automatically:

- A) Creates relationships between columns
  - B) Detects data types for each column**
  - C) Generates DAX measures
  - D) Removes null values
- 

**Q8.** Which option should you choose if you want to **clean data before loading it into the Power BI model?**

- A) Load
  - B) Transform Data**
  - C) Report View
  - D) DirectQuery
- 

**Q9.** If you import multiple monthly Excel files from a folder into Power Query, which option

consolidates them automatically?

- A) Merge Queries
  - B) Append Queries
  - C) Combine Files (Folder Connector)**
  - D) Create Relationships
- 

**Q10.** Which of the following features is used to stack **multiple tables vertically** (same columns, same schema) in Power Query?

- A) Merge Queries
  - B) Append Queries**
  - C) Group By
  - D) Pivot Columns
- 

**Q12.** Which option in Power Query is best suited for **joining two tables by a common key** (like CustomerID)?

- A) Append Queries
  - B) Merge Queries**
  - C) Group By
  - D) Unpivot Columns
- 

**Q13.** When importing an Excel sheet, if Power BI incorrectly detects the header row, what should you use?

- A) Promote Headers**
  - B) Use First Column as Headers
  - C) Replace Values
  - D) Split Column
- 

**Q14.** Which of the following is **TRUE** about the “Close & Load” options in Power Query?

- A) “Close & Load” loads the data directly into Excel only.

- B) “Close & Load To” allows loading into Power BI model or as a connection only.**
- C) “Close & Apply” is the same as “Close & Load.”
- D) They permanently alter the source data file.
- 

**Q15.** In Power Query, which transformation is used to replace all null values in a column with a fixed value?

- A) Replace Errors
- B) Replace Values**
- C) Fill Down
- D) Fill Up
- 

**Q16.** “Fill Down” in Power Query works best when:

- A) You want to aggregate null rows.
- B) The first row contains missing data.
- C) You need to replace nulls with the value directly above.**
- D) You want to remove duplicate rows.
- 

**Q17.** Which transformation **cannot directly remove nulls** in Power Query?

- A) Remove Blank Rows
- B) Replace Values with Zero
- C) Remove Empty
- D) Remove Duplicates**
- 

**Q18.** When you apply **Remove Duplicates** in Power Query without selecting specific columns, what happens?

- A) It removes rows only if all column values match.**
- B) It removes rows with at least one duplicate value in any column.
- C) It sorts the dataset automatically before removal.
- D) It deletes null values as well.

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**Q19.** To keep only the **latest record per customer ID** in a dataset with duplicates, you should:

- A) Remove Duplicates on Customer ID directly.
  - B) Sort by Date descending, then Remove Duplicates on Customer ID.**
  - C) Group By Customer ID and count rows.
  - D) Append Queries and remove nulls.
- 

**Q20.** Which is true about sorting in Power Query?

- A) Sorting is permanent in the data model.
  - B) Sorting only affects display order in Query Editor.**
  - C) Sorting must be re-applied after refresh.
  - D) Sorting is applied at visualization level only.
- 

**Q21.** In Power Query, “Group By” followed by selecting **All Rows** will:

- A) Return unique groups only.
  - B) Collapse groups into aggregated values.
  - C) Nest original tables within each group.**
  - D) Delete duplicates automatically.
- 

**Q22.** Which aggregation function is **not available** in Power Query Group By?

- A) Sum
  - B) Average
  - C) Median
  - D) Mode**
- 

**Q23.** When you Group By a column in Power Query without applying aggregation:

- A) The data collapses into a unique set of values for that column.**
- B) It creates duplicate rows.

- C) It automatically applies Sum.
  - D) It deletes unrelated rows.
- 

**Q24.** In Power Query, the difference between **Append Queries** and **Merge Queries** is:

- A) Append → Combines rows; Merge → Combines columns**
  - B) Append → Combines columns; Merge → Combines rows
  - C) Both are the same
  - D) Append is only for Excel sources
- 

**Q25.** Which feature in Power Query lets you **reorder transformation steps** if applied in the wrong order?

- A) Query Dependencies
  - B) Applied Steps Pane**
  - C) Data Types
  - D) Advanced Editor
-

## DATA MODELING & RELATIONSHIPS

**Q1.** Which of the following is the **primary goal** of data modeling in Power BI?

- A) To improve visual aesthetics of dashboards
  - B) To optimize storage size only
  - C) To create relationships between tables for accurate analysis**
  - D) To clean raw data sources before load
- 

**Q2.** In Power BI, a **good data model** should follow:

- A) Flat tables with all data merged
  - B) Snowflake schema with many intermediate joins
  - C) Star schema with fact and dimension separation**
  - D) Denormalization of fact tables only
- 

**Q3.** Which is a disadvantage of **highly normalized models** in Power BI?

- A) Reduce redundancy
  - B) Easy to manage dimension tables
  - C) Require many joins → slower query performance**
  - D) Improve data consistency
- 

**Q4.** Denormalization in Power BI is preferred when:

- A) Data redundancy must be avoided at all costs
  - B) Query performance and simplicity matter more than strict consistency**
  - C) Data sources are OLTP systems
  - D) Data is very small in size
-

**Q5.** A **snowflake schema** is considered less efficient in Power BI because:

- A) It stores facts in multiple tables
  - B) It increases relationship complexity and slows performance**
  - C) It does not support DAX measures
  - D) It is only valid in OLTP systems
- 

**Q6.** Which of the following is **not a valid relationship type** in Power BI?

- A) One-to-One
  - B) One-to-Many
  - C) Many-to-Many
  - D) Many-to-One**
- 

**Q7.** In Power BI, the **default cross-filter direction** for One-to-Many relationships is:

- A) Single (from dimension to fact)**
  - B) Single (from fact to dimension)
  - C) Both directions
  - D) No filtering by default
- 

**Q8.** If you have **two fact tables** linked to the same dimension table, what issue may occur?

- A) Circular dependency
  - B) Ambiguous relationship paths**
  - C) Invalid DAX measure creation
  - D) Duplicate dimension entries
- 

**Q9.** Which Power BI feature allows handling multiple relationships between the same two tables?

- A) Composite models
- B) Active/Inactive relationships**
- C) Role-playing dimensions

D) Cross-filter direction

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**Q10.** Cardinality in Power BI relationships refers to:

- A) The direction of filters between tables
  - B) The uniqueness of values in the key column**
  - C) The data type compatibility of relationships
  - D) The number of relationships in the model
- 

**Q11.** Which of the following is a valid scenario for a **One-to-One relationship**?

- A) Each customer can place multiple orders
  - B) Each employee has one ID card, and each ID card belongs to one employee**
  - C) Each product belongs to many categories
  - D) Each sale transaction contains multiple products
- 

**Q12.** A Many-to-Many relationship in Power BI can cause incorrect results unless:

- A) A bridge (intermediate) table is introduced**
  - B) It is converted to One-to-Many
  - C) The fact table is normalized
  - D) The relationship is disabled
- 

**Q13.** Setting cross-filter direction to **Both** is risky because:

- A) It increases redundancy
  - B) It may create ambiguous filter paths leading to wrong results**
  - C) It prevents relationship activation
  - D) It disables DAX measures
- 

**Q14.** Cross-filter direction **Single** is most commonly applied from:

- A) Fact → Dimension

**B) Dimension → Fact**

- C) Dimension ↔ Dimension
  - D) Fact ↔ Fact
- 

**Q15.** When should you use cross-filter direction = **Both**?

- A) When connecting two fact tables via a shared dimension**
  - B) When handling role-playing dimensions
  - C) When performance must be improved
  - D) Always, since it's best practice
- 

**Q16.** Which of the following **is NOT an advantage** of the star schema in Power BI?

- A) Simpler relationships
  - B) Better performance for DAX
  - C) Reduces data redundancy**
  - D) Easy to understand by business users
- 

**Q17.** Which scenario **requires a bridge table** in a star schema?

- A) Many-to-Many between Students and Courses**
  - B) One-to-Many between Orders and Customers
  - C) One-to-One between Employees and ID Cards
  - D) Many-to-One between Sales and Products
- 

**Q18.** Which of these is considered a **best practice for Power BI modeling**?

- A) Use snowflake schema for better normalization
- B) Create measures inside fact tables instead of dimensions**
- C) Avoid surrogate keys in dimensions
- D) Use multiple active relationships for flexibility

## **DAX (DATA ANALYSIS EXPRESSIONS)**

**Q1. What does DAX stand for in Power BI?**

- A) Data Analysis XML
  - B) Data Analysis Expressions**
  - C) Dynamic Analytics Expressions
  - D) Data Aggregation Expressions
- 

**Q2. DAX is primarily used for:**

- A) Data Loading
  - B) Data Cleaning
  - C) Data Modeling and Calculations**
  - D) Report Publishing
- 

**Q3. A calculated column in DAX is evaluated:**

- A) At query time
  - B) At data refresh/load time**
  - C) Only when exporting data
  - D) Only when the user applies filters
- 

**Q4. Which DAX function creates a calculated table?**

- A) SUMMARIZE
  - B) CALCULATETABLE
  - C) ADDCOLUMNS
  - D) All of the above**
-

**Q5. Unlike calculated columns, measures are:**

- A) Stored in memory
  - B) Evaluated dynamically at query time**
  - C) Created only once per model
  - D) Cannot use aggregations
- 

**Q6. Which of the following is an example of a measure?**

- A) Sales[Price] \* Sales[Quantity]
  - B) SUM(Sales[Revenue])**
  - C) LEFT(Customer[Name], 3)
  - D) Sales[Discount] + 10
- 

**Q7. Which DAX operator is used for string concatenation?**

- A) +
  - B) &**
  - C) ||
  - D) CONCAT()
- 

**Q8. The function IF(Sales[Amount] > 1000, "High", "Low") is an example of:**

- A) Statistical function
  - B) Logical function**
  - C) Text function
  - D) Aggregation
- 

**Q9. Which function returns the average of a column?**

- A) SUM
- B) DIVIDE
- C) AVERAGE**
- D) MEDIAN

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**Q10. Which text function extracts the first n characters from a string?**

- A) RIGHT
  - B) MID
  - C) LEFT**
  - D) SUBSTRING
- 

**Q11. SUMX differs from SUM because:**

- A) It aggregates over an expression row by row**
  - B) It is faster
  - C) It only works with integers
  - D) It ignores blank values
- 

**Q12. Which DAX function is used to create conditional aggregations?**

- A) CALCULATE**
  - B) SUMX
  - C) FILTER
  - D) VALUES
- 

**Q13. What does DISTINCTCOUNT(Column) return?**

- A) Number of rows
  - B) Unique values count**
  - C) Distinct rows in a table
  - D) Number of duplicates
- 

**Q14. DIVIDE( [Total Sales], [Total Orders], 0 ) does what?**

- A) Returns error on divide by zero
- B) Returns blank if denominator is zero**

C) Returns 0 if denominator is zero

D) Always rounds result

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**Q15. Which function returns the last date in the current filter context?**

A) ENDOFMONTH

**B) LASTDATE**

C) MAX

D) CLOSINGBALANCEMONTH

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**Q16. DATESYTD(Date[Date]) returns:**

**A) All dates from start of current year to last date in filter**

B) All dates from today to end of year

C) Only current year's last date

D) Year-over-year difference

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**Q17. Which function is used for previous period comparison?**

A) PREVIOUSMONTH

B) PREVIOUSDAY

C) SAMEPERIODLASTYEAR

**D) All of the above**

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**Q18. Which function calculates a moving average in DAX?**

**A) AVERAGEX with DATESINPERIOD**

B) CALCULATETABLE with VALUES

C) SUMX with EARLIER

D) RANKX with FILTER

---

**Q19. Which function assigns a rank to rows based on expression?**

- A) RANK
  - B) RANKX**
  - C) TOPN
  - D) ORDERBY
- 

**Q20. In RANKX, what does the order parameter control?**

- A) Ascending/Descending ranking**
  - B) Filter context
  - C) Table join direction
  - D) Aggregation method
- 

**Q21. Which function is used to return Top N values in a table?**

- A) FILTER
  - B) RANKX
  - C) TOPN**
  - D) ORDERBYCOLUMNS
- 

**Q22. To get Top 5 products by Sales, you would use:**

- A) TOPN(5, Products, [Total Sales], DESC)**
  - B) RANKX(Products, [Total Sales], , DESC, 5)
  - C) MAXX(Products, [Total Sales])
  - D) FILTER(Products, [Total Sales] >= 5)
- 

**Q23. Which function modifies the filter context?**

- A) CALCULATE**
  - B) SUMX
  - C) VALUES
  - D) RELATED
-

**Q24. EARLIER() is mostly used in:**

- A) Time intelligence functions
  - B) Row context inside calculated columns**
  - C) Measures with multiple filters
  - D) Concatenating strings
- 

**Q25. Which is NOT a valid DAX time intelligence function?**

- A) NEXTDAY
- B) DATESINPERIOD
- C) FIRSTDATE
- D) TO\_DATE**

## **DATA VISUALIZATION & INTERACTIVITY**

**Q1. Which chart is best to show trends over time in Power BI?**

- A) Pie Chart
  - B) Line Chart**
  - C) Tree Map
  - D) Gauge
- 

**Q2. Which visualization is best for showing contribution of categories to a whole?**

- A) Pie/Donut Chart**
  - B) Line Chart
  - C) Matrix Table
  - D) Scatter Plot
- 

**Q3. What does a KPI visual in Power BI primarily show?**

- A) Hierarchies
  - B) Actual vs Target values**
  - C) Data distribution
  - D) Geographic locations
- 

**Q4. Which visual is best for showing hierarchical data?**

- A) Tree Map**
  - B) Pie Chart
  - C) Matrix
  - D) Line Chart
-

**Q5. Which visual is best suited for comparing performance across multiple categories side by side?**

- A) Column Chart
  - B) Gauge
  - C) Pie Chart
  - D) Scatter Plot
- 

**Q6. A scatter plot in Power BI is used to show:**

- A) Distribution of categorical data
  - B) Relationship between two numerical variables**
  - C) Part-to-whole relationships
  - D) Ranking of categories
- 

**Q7. Which visualization is best to display actual vs forecasted values?**

- A) Line Chart with multiple series**
  - B) Tree Map
  - C) KPI
  - D) Matrix
- 

**Q8. In a Power BI matrix visual, you can expand and collapse levels using:**

- A) Filters
  - B) Hierarchies**
  - C) Slicers
  - D) Drillthrough
- 

**Q9. Which feature allows clicking on a chart element (like a bar) to filter data in other visuals?**

- A) Drillthrough
- B) Cross-filtering / Cross-highlighting**

- C) Tooltips
  - D) Bookmarks
- 

**Q10. Slicers in Power BI are mainly used for:**

- A) Data modeling
  - B) Adding interactivity with filters**
  - C) Creating measures
  - D) Formatting visuals
- 

**Q11. Which type of slicer allows selecting values from a continuous range?**

- A) List slicer
  - B) Dropdown slicer
  - C) Between slicer (range slider)**
  - D) Hierarchy slicer
- 

**Q12. Drill-through in Power BI allows:**

- A) Navigating to a detailed report page filtered for the selected item**
  - B) Exporting data into Excel
  - C) Adding interactivity to slicers
  - D) Combining multiple queries
- 

**Q13. What are bookmarks used for in Power BI?**

- A) Saving filtered states and navigation views**
  - B) Creating DAX calculations
  - C) Improving refresh performance
  - D) Publishing reports
- 

**Q14. Which feature helps build navigation buttons between report pages?**

- A) Drillthrough
  - B) Bookmarks with Buttons**
  - C) Tooltip Pages
  - D) Slicers
- 

**Q15. Conditional formatting in visuals can be applied to:**

- A) Tables and Matrix
  - B) Bar and Column Charts (Data Bars, Colors)
  - C) KPI cards
  - D) All of the above**
- 

**Q16. Which visualization is best to compare performance against a set goal?**

- A) Scatter Plot
  - B) Gauge**
  - C) Pie Chart
  - D) Matrix
- 

**Q17. What is the difference between Table and Matrix visual in Power BI?**

- A) Table supports hierarchies; Matrix does not
  - B) Matrix supports hierarchies & drill-down; Table is flat**
  - C) Both are identical
  - D) Matrix is only used for time-series data
- 

**Q18. A combo chart in Power BI typically combines:**

- A) Bar and Pie chart
  - B) Column and Line chart**
  - C) Scatter and Gauge chart
  - D) Map and Tree map
-

**Q19. Which visual best represents geographic data in Power BI?**

A) Scatter Plot

**B) Map Visual**

C) KPI

D) Table

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**Q20. Tooltips in Power BI are used for:**

A) Exporting data

**B) Showing additional data on hover**

C) Creating slicers

D) Formatting visuals

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**Q21. Which feature lets you apply multiple filters across pages consistently?**

**A) Report-level filters**

B) Drillthrough

C) Cross-filtering

D) Slicers only

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**Q22. Drill-down in a chart is enabled when:**

**A) A hierarchy exists in the data fields**

B) Filters are disabled

C) Data is unpivoted

D) Bookmarks are applied

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**Q23. Which is the best visual to show top 10 products by sales?**

**A) Tree Map**

B) Stacked Column Chart

C) Line Chart

D) Gauge

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**Q24. Which chart type would you use to show correlation between revenue and customer age?**

- A) Scatter Plot
  - B) Gauge
  - C) Donut Chart
  - D) Table
- 

**Q25. Which interactivity feature allows users to customize the report view without editing it?**

- A) Personal Bookmarks
  - B) Drillthrough Pages
  - C) Model Relationships
  - D) Append Queries
- 

**Q26. Which Power BI feature allows showing different visuals based on user selection (e.g., Sales vs Profit)?**

- A) Drillthrough
  - B) Hierarchies
  - C) Bookmarks with Buttons (Toggle)
  - D) Tooltips
- 

**Q27. What is the main advantage of using a decomposition tree visual in Power BI?**

- A) Displays trend over time
  - B) Compares actual vs target
  - C) Breaks down metrics into contributing factors interactively
  - D) Shows part-to-whole relationships
-

**Q28. Which formatting option allows you to show values directly inside a bar or column chart?**

- A) Conditional Formatting
  - B) Tooltip
  - C) Data Labels**
  - D) Cross-filtering
- 

**Q29. What is the purpose of the “Sync slicers” feature in Power BI?**

- A) Create drillthrough filters
  - B) Apply the same slicer selection across multiple report pages**
  - C) Combine two different slicers into one
  - D) Export slicer data to Excel
- 

**Q30. Which interactive feature helps highlight data in visuals without filtering other visuals?**

- A) Drillthrough
- B) Cross-highlighting**
- C) Report-level filters
- D) Bookmarks

## **REPORTING, DASHBOARDS & AI INTEGRATION**

**Q1. In Power BI, which feature allows you to save a specific state of a report page (filters, visuals) for easy navigation?**

A) Drillthrough

**B) Bookmarks**

C) Hierarchies

D) Tooltips

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**Q2. Which feature allows the creation of interactive buttons for navigation within a Power BI report?**

A) Filters

**B) Action Buttons with Bookmarks**

C) Relationships

D) Drillthrough

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**Q3. What is the primary purpose of a dashboard in Power BI Service?**

A) To build relationships

B) To clean and transform data

**C) To pin visuals from different reports into a single view**

D) To create measures and columns

---

**Q4. Which Power BI Service feature allows real-time updates in dashboards from streaming datasets?**

A) Report publishing

B) Import Mode

**C) Push/Streaming Datasets**

D) Drillthrough

---

**Q5. Which type of filter applies to the entire report across all pages?**

- A) Visual-level filter
  - B) Page-level filter
  - C) Report-level filter**
  - D) Slicer filter
- 

**Q6. Which feature allows you to provide a guided story-like experience in Power BI reports?**

- A) Drillthrough
  - B) Bookmarks with Selection Pane**
  - C) Cross-highlighting
  - D) Sync slicers
- 

**Q7. What is the purpose of KPI visuals in Power BI?**

- A) Show trend comparisons
  - B) Track progress against a defined target**
  - C) Display hierarchy-based data
  - D) Break data into components
- 

**Q8. Which Power BI feature allows sharing dashboards securely with colleagues?**

- A) Export to Excel
  - B) Report Filters
  - C) Power BI Service Sharing**
  - D) Drillthrough
- 

**Q9. Which type of refresh ensures the latest data is shown in a published dashboard?**

- A) Manual refresh**

B) Import refresh

**C) Scheduled refresh**

D) Reset refresh

---

**Q10. Which view in Power BI Desktop is used to design the layout of report visuals?**

A) Data View

B) Model View

**C) Report View**

D) Dashboard View

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**Q11. Which feature allows you to drill into a specific data point in a different report page?**

A) Bookmarks

B) Filters

**C) Drillthrough**

D) Hierarchies

---

**Q12. What is the main advantage of using slicers in dashboards?**

A) To export visuals

**B) To filter data interactively**

C) To create new tables

D) To combine datasets

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**Q13. Which Power BI feature helps in aligning and arranging visuals neatly on a report page?**

A) Data View

B) Drillthrough

**C) Snap-to-Grid & Alignment Guides**

D) Sync slicers

---

**Q14. What does “Pinning” a visual mean in Power BI?**

- A) Exporting it to Excel
  - B) Adding it to a dashboard from a report**
  - C) Applying a filter
  - D) Saving it as a template
- 

**Q15. Which file format is used to save and share Power BI reports?**

- A) .xls
  - B) .csv
  - C) .pbix**
  - D) .docx
- 
- 

## AI INTEGRATION

**Q16. Which AI visual in Power BI explains the key drivers behind a metric?**

- A) Q&A
  - B) Key Influencers**
  - C) Decomposition Tree
  - D) Forecasting
- 

**Q17. Which Power BI AI feature allows natural language queries like “Show sales by region”?**

- A) Forecasting
  - B) Q&A Visual**
  - C) Key Influencers
  - D) Tooltips
- 

**Q18. Which visual allows breaking down data step by step to analyze contributions?**

- A) Gauge
  - B) KPI
  - C) Decomposition Tree**
  - D) Donut
- 

**Q19. What does the AI feature “Analyze” (right-click on a visual) do in Power BI?**

- A) Export data
  - B) Automatically detect explanations like “Explain the increase”**
  - C) Refresh datasets
  - D) Create new bookmarks
- 

**Q20. Which AI feature can project future values based on historical data in line charts?**

- A) Key Influencers
  - B) Decomposition Tree
  - C) Forecasting**
  - D) Smart Narratives
- 

**Q21. Smart Narratives in Power BI are used to:**

- A) Clean data
  - B) Automatically generate textual summaries of visuals**
  - C) Build relationships
  - D) Add bookmarks
- 

**Q22. Which feature allows users to type questions and get visuals instantly?**

- A) Smart Narratives
  - B) Key Influencers
  - C) Q&A**
  - D) Drillthrough
-

**Q23. Which AI integration provides explanations like “This category contributed the most to variance”?**

- A) Tooltips
  - B) Analyze (AI Insights)**
  - C) Cross-highlighting
  - D) Bookmarks
- 

**Q24. Which AI feature suggests the most significant factors influencing a selected outcome?**

- A) Forecasting
  - B) Key Influencers**
  - C) Decomposition Tree
  - D) Q&A
- 

**Q25. Which AI feature is most useful for executives who want plain language insights directly in reports?**

- A) Q&A
  - B) Smart Narratives**
  - C) Bookmarks
  - D) KPI
- 

**Q26. In Power BI, AutoML in Premium capacity allows users to:**

- A) Create relationships
  - B) Train and apply machine learning models**
  - C) Create dashboards
  - D) Build slicers
- 

**Q27. AI Insights in Power Query provides:**

- A) DAX formulas

- B) Prebuilt cognitive services like text and sentiment analysis**
  - C) Visualization templates
  - D) Dashboard alignment
- 

**Q28. Which feature allows combining Azure Cognitive Services with Power BI data for AI analysis?**

- A) Smart Narratives
  - B) Key Influencers
  - C) AI Insights**
  - D) Drillthrough
- 

**Q29. Which Power BI AI feature is best for “what-if” analysis of contributing factors?**

- A) Q&A
  - B) Decomposition Tree**
  - C) KPI
  - D) Filters
- 

**Q30. Which AI-driven visual in Power BI is designed to answer “Why did this happen?” questions?**

- A) Forecasting
- B) Key Influencers**
- C) Q&A
- D) Smart Narratives