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Assignment- 4

Visualization in Power BI

1. **Stacked Bar Chart**

   - *Definition:* Horizontal bars divided into segments representing different categories.

   - *Importance:* Shows part-to-whole relationships across categories over a common axis.

2. **Stacked Column Chart**

   - *Definition:* Vertical columns divided into segments.

   - *Importance:* Useful for comparing total values and the composition of each category.

3. **Clustered Bar Chart**

   - *Definition:* Groups horizontal bars side by side by category.

   - *Importance:* Ideal for comparing multiple values across the same category.

4. **Clustered Column Chart**

   - *Definition:* Groups vertical columns side by side.

   - *Importance:* Effective for comparing multiple data series across categories.

5. **100% Stacked Bar Chart**

   - ○ *Definition:* Horizontal bars where each stack represents 100%.

   - ○ *Importance:* Highlights the percentage contribution of components across categories.

6. **100% Stacked Column Chart**

   - ○ *Definition:* Vertical columns where each stack totals to 100%.

   - ○ *Importance:* Used to compare percentage breakdowns between categories.

7. **Line Chart**

   - ○ *Definition:* Shows data points connected by a line over time.

   - ○ *Importance:* Excellent for trend analysis over a continuous interval.

8. **Area Chart**

   - ○ *Definition:* Line chart with the area below the line filled.

   - ○ *Importance:* Emphasizes volume of data over time.

9. **Stacked Area Chart**

   - ○ *Definition:* Multiple area charts stacked on top of each other.

   - ○ *Importance:* Shows cumulative trends and distribution over time.

10. **100% Stacked Area Chart**

- *Definition:* Stacked areas that represent 100% at each point.

- *Importance:* Compares percentage contributions over time.

11.Line and Stacked Column Chart

- *Definition:* Combines a line chart with a stacked column chart.

- *Importance:* Useful for comparing trends and total composition together.

12.Line and Clustered Column Chart

- *Definition:* Mix of line and side-by-side column chart.

- *Importance:* Compares a line trend with multiple clustered values.

13.Ribbon Chart

- *Definition:* Shows ranking changes over time with flowing ribbons.

- *Importance:* Great for visualizing category ranking shifts.

14.Waterfall Chart

- *Definition:* Displays running total as values are added/subtracted.

- *Importance:* Helps explain how an initial value is affected by a series of changes.

15.Funnel Chart

- *Definition:* Visualizes a linear process with stages.

- *Importance:* Ideal for tracking conversion rates or sales stages.

16. **Scatter Chart**

- *Definition:* Plots data points based on two variables.

- *Importance:* Useful for identifying relationships and outliers.

17. **Pie Chart**

- *Definition:* Circular chart divided into slices.

- *Importance:* Shows part-to-whole relationships at a glance.

18. **Donut Chart**

- *Definition:* Pie chart with a blank center.

- *Importance:* Similar to pie chart but can include a central label.

19. **Tree Map**

- *Definition:* Hierarchical data displayed as nested rectangles.

- *Importance:* Useful for visualizing proportions within categories.

20. **Map**

- *Definition:* Displays data across geographical locations.

- *Importance:* Helps in spatial analysis and location-based insights.

21. **Filled Map**

- *Definition:* Map with colored regions.

- *Importance:* Shows data intensity or category by area.

22.Azure Map

- *Definition:* Interactive, real-time map powered by Azure.

- *Importance:* Useful for detailed geospatial analytics.

23.Gauge

- *Definition:* Circular dial showing progress toward a goal.

- *Importance:* Ideal for KPIs and performance metrics.

24.Card

- *Definition:* Displays a single numeric value.

- *Importance:* Highlights key figures like totals or averages.

25.Multi-Row Card

- *Definition:* Displays multiple values in a card format.

- *Importance:* Presents several key stats in a compact layout.

26.KPI (Key Performance Indicator)

- *Definition:* Shows progress toward a defined target.

- *Importance:* Useful for performance monitoring.

27.Slicer

- *Definition:* Visual filter for selecting specific data.

- *Importance:* Allows users to interactively filter reports.

28. Table

- *Definition:* Displays data in rows and columns.

- *Importance:* Great for detailed, precise data analysis.

29. Matrix

- *Definition:* Pivot-style table with row and column groups.

- *Importance:* Useful for hierarchical and cross-tab reports.

30. R Script Visual

- *Definition:* Custom visuals created using R scripts.

- *Importance:* Enables advanced statistical and custom visualizations.

31. Python Visual

- *Definition:* Visuals generated from Python scripts.

- *Importance:* Supports complex analytics and machine learning visuals.

32. Key Influencer

- *Definition:* Identifies factors that affect a particular outcome.

- *Importance:* Useful for root cause and impact analysis.

33. Decomposition Tree

- *Definition:* Breaks down metrics into multiple dimensions.

- *Importance:* Allows drill-down analysis for deep insights.

34. Narrative

- *Definition:* Auto-generated text summary of data insights.

- *Importance:* Helps explain data trends in plain language.

35. Goals

- *Definition:* Tracks progress toward strategic business objectives.

- *Importance:* Aligns visuals with business goals for monitoring.

36. Paginated Report

- *Definition:* Printable, pixel-perfect reports.

- *Importance:* Ideal for detailed, formatted reporting needs.

37. Button Slicer

- *Definition:* Interactive slicer with button-style options.

- *Importance:* Enhances user navigation and filtering experience.

38. ArcGIS for Power BI

- *Definition:* Advanced geospatial visualization using Esri's ArcGIS.

- *Importance:* Delivers rich mapping features for spatial insights.