



Descriptive Analytics

Explore data transformation for actionable insights.

Learn visualization techniques using Power BI.





What is Descriptive Analytics?

Purpose

Answers "What has happened?" in data analysis.

Process

Distills large data volumes into clear insights.

Presentation

Uses visual representations for easier interpretation.

Impact

Reveals patterns, guiding decision-making processes.

Data Transformation





Power BI: Your Analytics Toolkit

1

Installation

Download and set up Power BI.

2

Data Import

Load your datasets into Power BI.

3

Transformation

Clean and prepare data for analysis.

4

Visualization

Create compelling charts and graphs.



Setting Visualization Goals



Clarity

Ensure visuals convey clear message.



Engagement

Create visually appealing and informative graphics.



Insight

Highlight key patterns and trends.



Actionability

Guide decision-making with data-driven visuals.





Trend Analysis: Past to Future



1

Historical Data

Gather and analyze past performance metrics.

2

Pattern Recognition

Identify recurring trends and cycles.

3

Projection

Use historical patterns to forecast future trends.

4

Decision Making

Inform strategies based on projected trends.



Grouping and Clustering Data

Segmentation

Divide data into meaningful groups.

- Demographic clusters
- Behavioral segments
- Product categories

Analysis

Examine patterns within each group.

- Unique characteristics
- Group-specific trends
- Comparative insights

Application

Tailor strategies to each segment.

- Targeted marketing
- Personalized services
- Optimized resource allocation



Case Study: Visual Summary Creation

1

Data Collection

Gather relevant data from multiple sources.

2

Analysis

Apply descriptive analytics techniques to dataset.

3

Insight Extraction

Identify key findings and patterns.

4

Visualization Design

Create compelling graphic to showcase insights.





Putting It All Together

1 Practice

Apply learned techniques to real-world datasets.

3 Collaborate

Share and discuss findings with peers.

2 Experiment

Try different visualization types for various insights.

4 Iterate

Refine your approach based on feedback.



Knowledge Check.....

What question does descriptive analytics aim to answer?

- **A) "What will happen?"**
- **B) "Why did it happen?"**
- **C) "What has happened?"**
- **D) "How can we make it happen?"**



<https://www.microsoft.com/en-us/power-platform/products/power-bi/desktop>

<https://www.dropbox.com/scl/fi/x8u5jx1a51mke1gp89xtw/Contoso.pbix?rlkey=kvu2oc63ls4oo77t4a3nk3u2q&e=2&dl=0>

Data set



Summary... ..

- **Descriptive Analytics**
- **Power BI**
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