

Data-Driven Decision Making

Unit 4: Types of Data



Course Overview

- ▶ Unit 1: Introduction to Data-Driven Decision-Making
- ▶ Unit 2: Transforming to a Data-Driven Decision-Making Enterprise
- ▶ Unit 3: The Role of Leadership
- ▶ **Unit 4: Types of Data**
- ▶ Unit 5: Deriving Data Insights
- ▶ Unit 6: Creating Effective Visualizations
- ▶ Unit 7: Database Marketing and Customer Relationship Management
- ▶ Unit 8: Data-Driven Uses and Misuses



Unit 4 Learning Outcomes

- ▶ distinguish between different types of quantitative and qualitative data
- ▶ analyze the role of big data
- ▶ compare different types of analytics and their role in building a data-driven decision-making enterprise



Why are Learning Outcomes Important?

- ▶ Every learning outcome ties back to course materials and content.
- ▶ Assessments are tied to each learning outcome.
- ▶ Test preparation



Unit 4 Topics

- ▶ Quantitative and Qualitative Data
- ▶ Big Data
- ▶ Types of Analytics
- ▶ Applying Analytics



Unit 4 Vocabulary

- ▶ analytics development
- ▶ descriptive statistics
- ▶ frequency distributions
- ▶ inferential statistics
- ▶ qualitative data
- ▶ quantitative data



Quantitative and Qualitative Data

- ▶ Quantitative Data
- ▶ Qualitative Data



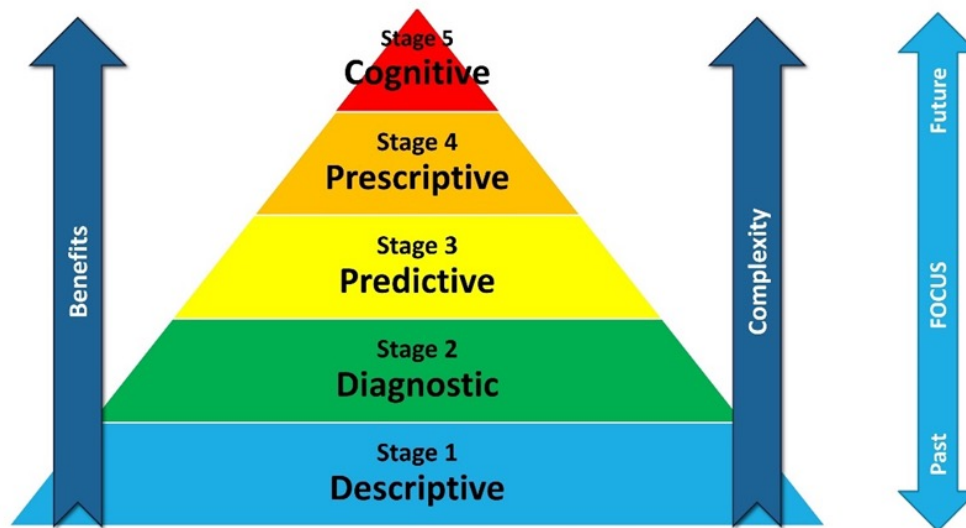
Big Data

- ▶ Volume
- ▶ Velocity
- ▶ Variety



Types of Analytics and Development

Stages of Analytics Development



Applying Analytics

| Type of Analytics | Question Answered | General Business Example | Healthcare Example |
|------------------------|----------------------------|---|--|
| Descriptive Analytics | What Happened? | How many cars did we sell last year? | How many patients were diagnosed with HBP last year? |
| Diagnostic Analytics | Why Did It Happen? | Why did we only sell x cars last year? | Why did these patients develop HBP? |
| Predictive Analytics | What Will Happen? | If I run x advertising programs, how many cars can we sell? | What are the chances Mr. Jones' HBP will result in a stroke? |
| Prescriptive Analytics | How Can We Make it Happen? | What do we need to do to sell x number of cars? | Mr. Jones should be put on x medication to prevent his HBP from resulting in a stroke. |



Conclusion

Unit 4 Learning Outcomes:

- ▶ distinguish between different types of quantitative and qualitative data
- ▶ analyze the role of big data
- ▶ compare different types of analytics and their role in building a data-driven decision-making enterprise



What's next?

Unit 5: Deriving Data Insights

