COURSE SYLLABUS

CompTIA Data+ Certification Training

In this course, you will cover the knowledge and skills required to transform business requirements in support of data-driven decisions by mining data, manipulating data, applying basic statistical methods, and analyzing complex data sets while adhering to governance and quality standards throughout the entire data lifecycle. In addition, it will help prepare candidates to take the CompTIA Data+ certification exam.

> Group classes in Washington, DC and onsite training is available for this course.
> For more information, email onsite@graduateschool.edu or visit:
> https://www.graduateschool.edu/courses/comptia-data-certification-training

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Course Outline

Lesson 1: Identifying Basic Concepts of Data Schemas

- Understand the fundamental concepts of data schemas.
- Learn how data schemas are structured and used in business environments.
- Explore the role of schemas in data storage and organization.

Lesson 2: Understanding Different Data Systems

- Learn about various data systems and their purposes.
- Compare and contrast relational and non-relational data systems.
- Understand the advantages and challenges of each system type.

Lesson 3: Understanding Types and Characteristics of Data

- Explore different data types (e.g., structured, semi-structured, unstructured).
- Understand the characteristics of data and how they impact analysis.
- Examine data quality and its importance in decision-making.

Lesson 4: Comparing and Contrasting Different Data Structures, Formats, and Markup Languages

- Learn about common data structures and formats used in analytics.
- Understand how markup languages influence data representation.
- Explore how these structures impact data integration and analysis.

Lesson 5: Explaining Data Integration and Collection Methods

- Learn the methods used for collecting and integrating data from various sources.
- Understand best practices for ensuring accurate data collection.
- Explore tools and techniques used in data integration.

Lesson 6: Identifying Common Reasons for Cleansing and Profiling Data

- Understand the importance of data cleansing and profiling.
- Learn techniques for identifying data quality issues.
- Examine strategies to improve data integrity.

Lesson 7: Executing Different Data Manipulation Techniques

- Explore data manipulation techniques such as filtering, sorting, and transforming data.
- Learn how to apply these techniques to clean and optimize data.

Lesson 8: Explaining Common Techniques for Data Manipulation and Optimization

- Understand optimization strategies for handling large datasets.
- Learn about the role of indexing and query optimization in data systems.

Lesson 9: Applying Descriptive Statistical Methods

- Learn how to apply descriptive statistics such as mean, median, and mode.
- Understand the importance of these methods in data analysis.

Lesson 10: Describing Key Analysis Techniques

- Examine key analysis techniques such as regression and correlation.
- Understand how these techniques help in drawing business conclusions.

Lesson 11: Understanding the Use of Different Statistical Methods

- Learn about various statistical methods used in data analysis.
- Explore the application of these methods in solving real-world business problems.

Lesson 12: Using the Appropriate Type of Visualization

- Learn how to select and use the correct type of visualization for different data sets.
- Understand the principles of data visualization design.

Lesson 13: Expressing Business Requirements in a Report Format

- Learn how to translate business requirements into structured data reports.
- Understand how to present data in an easily understandable format for stakeholders.

Lesson 14: Designing Components for Reports and Dashboards

- Learn how to design effective components for reports and dashboards.
- Understand best practices in report design for data-driven decisions.

Lesson 15: Distinguishing Different Report Types

- Understand the differences between operational, analytical, and strategic reports.
- Learn how to choose the right report type based on business needs.

Lesson 16: Summarizing the Importance of Data Governance

- Understand the concept of data governance and its impact on data management.
- Learn about policies, procedures, and standards for managing data governance.

Lesson 17: Applying Quality Control to Data

- Learn quality control techniques and their application in data management.
- Understand how to maintain data quality throughout the lifecycle.

Lesson 18: Explaining Master Data Management Concepts

- Learn about master data management and its importance in managing critical business data.

- Understand how master data management ensures consistency and accuracy across systems.

Appendix A: Identifying Common Data Analytics Tools

- Learn about popular tools used in data analytics such as SQL, Excel, and Python.
- Understand the role of these tools in data manipulation and reporting.

Appendix B: Mapping Course Content to CompTIA Data+ (DA0-001)

- Explore how the course content aligns with the official CompTIA Data+ certification exam objectives.
- Prepare for the certification by understanding the exam domains and key concepts covered in the course.