

CT-Data+: CompTIA Data+

Course Code: CT-DATA+

Duration: 5 days

Instructor-led Training (ILT) | Virtual Instructor-led Training (VILT)

OVERVIEW

The Official CompTIA Data+ Instructor and Student Guides (DA0-001) have been developed by CompTIA for the CompTIA Data+ candidate. Rigorously evaluated to validate coverage of the CompTIA Data+ (DA0-001) exam objectives, The Official CompTIA Data+ Instructor and Student Guides teaches learners 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.

SKILLS COVERED

- Please refer to course overview.

WHO SHOULD ATTEND?

Data Analyst, Reporting Analyst, Marketing Analyst, Clinical Analyst, Operations Analyst, Business Analyst, Business Intelligence Analyst.

PREREQUISITES

There are no prerequisites required to attend this course.

MODULES

Module 1: Identifying Basic Concepts of Data Schemas

- Topic 1A: Identify Relational and NonRelational Databases
 - Exam Objective: 1.1 Identify basic concepts of data schemas and dimensions.
- Review Activity: Relational and Non-Relational Databases
- Topic 1B: Understand the Way We Use Tables, Primary Keys, and Normalization
 - Exam Objectives: 1.1 Identify basic concepts of data schemas and dimensions.
 - 2.3 Given a scenario, execute data manipulation techniques.
 - 5.1 Summarize important data governance concept
- Video: Identifying Relationships in Data Review Activity: Tables, Primary Keys, and Normalization

Module 2: Understanding Different Data Systems

- Topic 2A: Describe Types of Data Processing and Storage Systems
 - Exam Objective: 1.1 Identify basic concepts of data schemas and dimensions.
- Review Activity: Types of Data Processing and Storage Systems
- Topic 2B: Explain How Data Changes
 - Exam Objective: 1.1 Identify basic concepts of data schemas and dimensions.
- Review Activity: Explain How Data Changes

Module 3: Understanding Types and Characteristics of Data

- Topic 3A: Understand Types of Data
 - Exam Objective: 1.2 Compare and contrast different data types
- Review Activity: Types of Data

- Topic 3B: Break Down the Field Data Types
 - Exam Objective: 1.2 Compare and contrast different data types
- Video: Understanding Field Data Types
Review Activity: Field Data Types

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

- Topic 4A: Differentiate between Structured Data and Unstructured Data
 - Exam Objective: 1.3 Compare and contrast common data structures and file formats
- Video: Structured Data versus Unstructured Data
Review Activity: Structured and Unstructured Data
- Topic 4B: Recognize Different File Formats
 - Exam Objective: 1.3 Compare and contrast common data structures and file formats
- Review Activity: File Formats
- Topic 4C: Understand the Different Code Languages Used for Data
 - Exam Objective: 1.3 Compare and contrast common data structures and file formats.
- Review Activity: Code Languages Used for Data

Module 5: Explaining Data Integration and Collection Methods

- Topic 5A: Understand the Processes of Extracting, Transforming, and Loading Data
 - Exam Objective: 2.1 Explain data acquisition concepts
- Review Activity: The Processes of Extracting, Transforming, and Loading Data

- Topic 5B: Explain API/Web Scraping and Other Collection Methods
 - Exam Objectives: 2.1 Explain data acquisition concepts.
 - 1.3 Compare and contrast common data structures and file formats.
- Review Activity: API/Web Scraping and Other Collection Methods
- Topic 5C: Collect and Use Public and Publicly Available Data
 - Exam Objective: 2.1 Explain data acquisition concepts.
- Video: Creating a Data Set from Census Data
Review Activity: Public and Publicly Available Data
- Topic 5D: Use and Collect Survey Data
 - Exam Objective: 2.1 Explain data acquisition concepts.
- Video: Building a Survey and Collecting Data
Review Activity: Survey Data

Module 6: Identifying Common Reasons for Cleansing and Profiling Data

- Topic 6A: Learn to Profile Data
 - Exam Objective: 2.2 Identify common reasons for cleansing and profiling datasets.
- Review Activity: Learn to Profile Data
- Topic 6B: Address Redundant, Duplicated, and Unnecessary Data
 - Exam Objective: 2.2 Identify common reasons for cleansing and profiling datasets
- Review Activity: Redundant, Duplicated, and Unnecessary Data
- Topic 6C: Work with Missing Values
 - Exam Objective: 2.2 Identify common reasons for cleansing and profiling datasets.
- Review Activity: Missing Values
- Topic 6D: Address Invalid Data
 - Exam Objective: 2.2 Identify common reasons for cleansing and profiling datasets.

- Video: Correcting or Removing Invalid Data Review Activity: Invalid Data
- Topic 6E: Convert Data to Meet Specifications
 - Exam Objective: 2.2 Identify common reasons for cleansing and profiling datasets
- Review Activity: Convert Data to Meet Specifications

Module 7: Executing Different Data Manipulation Techniques

- Topic 7A: Manipulate Field Data and Create Variables
 - Exam Objective: 2.3 Given a scenario, execute data manipulation techniques.
- Review Activity: Manipulate Field Data and Create Variables
- Topic 7B: Transpose and Append Data
 - Exam Objective: 2.3 Given a scenario, execute data manipulation techniques.
- Video: Transposing Data and Appending Data Sets Review Activity: Transpose and Append Data
- Topic 7C: Query Data
 - Exam Objective: 2.3 Given a scenario, execute data manipulation techniques
- Video: Discovering how Joins Impact Data Results Review Activity: Query Data

Module 8: Explaining Common Techniques for Data Manipulation and Optimization

- Topic 8A: Use Functions to Manipulate Data
 - Exam Objective: 2.3 Given a scenario, execute data manipulation techniques.
 - 2.4 Explain common techniques for

data manipulation and query optimization.

- Video: Using Functions to Manipulate Data Review Activity: Functions to Manipulate Data
- Topic 8B: Use Common Techniques for Query Optimization
 - Exam Objective: 2.4 Explain common techniques for data manipulation and query optimization
- Review Activity: Common Techniques for Query Optimization

Module 9: Applying Descriptive Statistical Methods

- Topic 9A: Use Measures of Central Tendency
 - Exam Objective: 3.1 Given a scenario, apply the appropriate descriptive statistical methods.
- Video: Calculating the Measure of Central Tendency Review Activity: Measures of Central Tendency
- Topic 9B: Use Measures of Dispersion
 - Exam Objective: 3.1 Given a scenario, apply the appropriate descriptive statistical methods
- Review Activity: Measures of Dispersion
- Topic 9C: Use Frequency and Percentages
 - Exam Objective: 3.1 Given a scenario, apply the appropriate descriptive statistical methods.
- Video: Calculating Percentages Review Activity: Frequency and Percentages

Module 10: Describing Key Analysis Techniques

- Topic 10A: Get Started with Analysis
 - Exam Objective: 3.3 Summarize types of analysis and key analysis techniques.

- Review Activity: Get Started with Analysis
- Topic 10B: Recognize Types of Analysis
- Exam Objective: 3.3 Summarize types of analysis and key analysis techniques.
- Review Activity: Types of Analysis

Module 11: Understanding the Use of Different Statistical Methods

- Topic 11A: Understand the Importance of Statistical Tests
- Exam Objective: 3.2 Explain the purpose of inferential statistical methods.
- Video: Understanding the Importance of Statistical Tests. Review Activity: The Importance of Statistical Tests
- Topic 11B: Break Down the Hypothesis Test
- Exam Objective: 3.2 Explain the purpose of inferential statistical methods.
- Review Activity: The Hypothesis Test
- Topic 11C: Understand Tests and Methods to Determine Relationships Between Variables
- Exam Objective: 3.2 Explain the purpose of inferential statistical methods.
- Review Activity: Tests and Methods to Determine Relationships Between Variables.

Module 12: Using the Appropriate Type of Visualization

- Topic 12A: Use Basic Visuals
- Exam Objective: 4.4 Given a scenario, apply the appropriate type of visualization.
- Review Activity: Basic Visuals
- Topic 12B: Build Advanced Visuals
- Exam Objective: 4.4 Given a scenario,

apply the appropriate type of visualization.

- Video: Building and Reading Stacked Charts Review Activity: Advanced Visuals
- Topic 12C: Build Maps with Geographical Data
- Exam Objective: 4.4 Given a scenario, apply the appropriate type of visualization.
- Review Activity: Maps with Geographical Data
- Topic 12D: Use Visuals to Tell a Story
- Exam Objective: 4.4 Given a scenario, apply the appropriate type of visualization.
- Review Activity: Visuals to Tell a Story

Module 13: : Expressing Business Requirements in a Report Format

- Topic 13A: Consider Audience Needs When Developing a Report
- Exam Objective: 4.1 Given a scenario, translate business requirements to form a report.
- Review Activity: Audience Needs When Developing a Report
- Topic 13B: Describe Data Source Considerations For Reporting
- Exam Objective: 4.3 Given a scenario, use appropriate methods for dashboard development.
- Video: Accessing Source Data and Creating Reports Review Activity: Data Source Considerations for Reporting
- Topic 13C: Describe Considerations for Delivering Reports and Dashboards
- Exam Objective: 4.1 Given a scenario, translate business requirements to form a report.
- 4.3 Given a scenario, use appropriate methods for dashboard development.
- Review Activity: Considerations for Delivering Reports and Dashboards.

- Topic 13D: Develop Reports or Dashboards
 - Exam Objective: 4.1 Given a scenario, translate business requirements to form a report.
 - 4.3 Given a scenario, use appropriate methods for dashboard development.
- Video: Selecting Different Visualization Layouts Review Activity: Develop Reports or Dashboards
- Topic 13E: Understand Ways to Sort and Filter Data
 - Exam Objectives: 4.1 Given a scenario, translate business requirements to form a report.
 - 4.3 Given a scenario, use appropriate methods for dashboard development
- Review Activity: Ways to Sort and Filter Data

Module 14: Designing Components for Reports and Dashboards

- Topic 14A: Design Elements for Reports and Dashboards
 - Exam Objective: 4.2 Given a scenario, use appropriate design components for reports and dashboards
- Video: Using Appropriate Design Components for Reports and Dashboards. Review Activity: Design Elements for Reports/Dashboards
- Topic 14B: Utilize Standard Elements
 - Exam Objective: 4.2 Given a scenario, use appropriate design components for reports and dashboards.
- Review Activity: Standard Elements for Reports and Dashboards
- Topic 14C: Creating a Narrative and Other Written Elements
 - Exam Objective: 4.2 Given a scenario, use appropriate design components for reports and dashboards.
- Review Activity: Narrative and Other Written Elements

- Topic 14D: Understand Deployment Considerations
 - Exam Objective: 4.3 Given a scenario, use appropriate methods for dashboard development
- Video: Deployment Considerations. Review Activity: Deployment Considerations

Module 15: Distinguishing Different Report Types

- Topic 15A: Understand How Updates and Timing Affect Reporting
 - Exam Objective: 4.5 Compare and contrast types of reports.
- Review Activity: How Updates and Timing Affect Reporting
- Topic 15B: Differentiate Between Types of Reports
 - Exam Objective: 4.5 Compare and contrast types of reports.
- Review Activity: Types of Reports

Module 16: Summarizing the Importance of Data Governance

- Topic 16A: Define Data Governance
 - Exam Objective: 5.1 Summarize important data governance concepts.
- Video: Importance of Data Governance Review Activity: Data Governance
- Topic 16B: Understand Access Requirements and Policies
 - Exam Objective: 5.1 Summarize important data governance concepts.
- Review Activity: Access Requirements and Policies
- Topic 16C: Understand Security Requirements
 - Exam Objective: 5.1 Summarize important data governance concepts.
- Review Activity: Security Requirements
- Topic 16D: Understand Entity Relationship Requirements

- Exam Objective: 5.1 Summarize important data governance concepts.
- Review Activity: Entity Relationship Requirements

Module 17: Applying Quality Control to Data

- Topic 17A: Describe Characteristics, Rules, and Metrics of Data Quality
 - Exam Objective: 5.2 Given a scenario, apply data quality control concepts.
- Review Activity: Characteristics, Rules, and Metrics of Data Quality
- Topic 17B: Identify Reasons to Quality Check Data and Methods of Data Validation
 - Exam Objective: 5.2 Given a scenario, apply data quality control concepts.
- Review Activity: Reasons to Quality Check Data and Methods of Data Validation

Module 18: Explaining Master Data Management Concepts

- Topic 18A: Explain the Basics of Master Data Management
 - Exam Objective: 5.3
- Video: Understanding Data Management. Review Activity: The Basics of Master Data Management
- Topic 18B: Describe Master Data Management Processes
 - Exam Objective: 5.3 Explain master data management (MDM) concepts.
- Review Activity: Master Data Management Processes

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