APPLIED TECHNOLOGY ACADEMY

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CompTIA DataSys+ Training

CompTIA Authorized Training · Applied Technology Academy

The CompTIA Data Systems (DataSys+) Certification course is specifically designed to equip candidates with the essential knowledge and skills needed to effectively deploy, manage, and maintain databases. This comprehensive course focuses on various key aspects, including scripting and programming fundamentals within a database environment, implementing robust security measures, and adhering to industry best practices for business continuity.

LEVEL	DURATION	EXAM	EXPERIENCE	AVERAGE SALARY
Beginner	**5 Days**	**DS0-001**	**2-3 years: Database Administration**	**$96,710**

Course Overview

The CompTIA DataSys+ certification exam is vendor neutral and covers what database administrators need to deploy, manage, and maintain data systems. In this course, you will learn:

- Database Fundamentals
- Database Deployment
- Database Management and Maintenance
- Data and Database Security
- Business Continuity

Course Outline

- **Lesson 1: Understanding Database Types and Structures**
  - Identify Relational and Non-Relational Databases
  - Understand Different Types of NoSQL Databases and Tools
  - Understand Relational Database Design
  - Identify Other Data Systems
- **Lesson 2: Recognizing Standards and Commands**
  - Understand Standards and Principles
  - Examine Operating Systems and Command Line Scripting
- **Lesson 3: Running Scripts for Data and Data Systems**
  - Create and Alter Objects Using Data Definition Language
  - Manipulate Data Using Data Manipulation Language
  - Work with Transactions
  - Perform Data Management Tasks

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- **Lesson 4: Explaining the Impact of Programming on Database Operations**
  - Work with Views
  - Understand Object Relational Mapping
  - Program with SQL
  - Write Functions
- **Lesson 5: Understanding Database Planning and Design**
  - Understand Types of Architecture
  - Gather Data System Requirements
  - Review Documentation Requirements
- **Lesson 6: Implementing, Testing, and Deploying Databases**
  - Prepare for Deployment
  - Conduct Testing and Other Quality Measures
  - Understand Validation Techniques and Methods
- **Lesson 7: Monitoring and Reporting on Database Performance**
  - Consider Database Connectivity Needs
  - Monitor the Database
  - Understand and Address Deadlocks
- **Lesson 8: Understanding Common Data Maintenance Processes**
  - Explain Patch Management
  - Ensure Database Performance
  - Ensure Database Integrity
- **Lesson 9: Understanding Governance and Regulatory Compliance**
  - Understand the Importance of Protecting Data and Preventing Data Loss
  - Understand Data Retention Policies
  - Classify Data
  - Consider Global Jurisdiction and Regional Regulations
  - Understand Third-Party Agreements and Release Approvals
- **Lesson 10: Securing Data**
  - Understand Data Encryption
  - Understand Data Masking
  - Describe Data Destruction Techniques
  - Audit Data Access
  - Audit Code and Changes
- **Lesson 11: Securing Data Access**
  - Understand Identity and Access Management
  - Understand Access Controls

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  - Understand Password Policies
  - Work with Service Accounts
- **Lesson 12: Securing the Database and Server**
  - Utilize Physical Security
  - Utilize Logical Security
- **Lesson 13: Classifying Types of Attacks**
  - Mitigate the SQL Injection Attack
  - Mitigate the Denial of Service (DoS) Attack
  - Mitigate the On-Path Attack
  - Mitigate the Brute Force Attack
  - Mitigate Social Engineering Attacks
  - Mitigate Malware
- **Lesson 14: Planning for Disaster Recovery**
  - Plan for Disaster Recovery
  - Conduct DR Plan Testing
  - Transition/Failback to Normal Operations
- **Lesson 15: Implementing Backup and Restore Best Practices**
  - Identify Types of Backups
  - Implement a Backup Strategy
  - Store and Purge Backups

Intended Audience

- Database Administrator
- Database Administrator
- System Database Administrator
- Task-Oriented Database Administrator
- Application Database Administrator
- Cloud Database Administrator
- Specialist Database Administrator
- Performance Database Administrator
- Database Manager

Prerequisites

No prerequisites, however, 2-3 years of experience in a database administrator role is recommended.

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Follow-On Courses

- CompTIA A+
- CompTIA Network+
- CompTIA Security+

Ready to enroll? Call 800.674.3550 or email Info@AppliedTechAc.com — private team cohorts, GSA MAS purchasing, military credentialing funding, VA GI Bill and VR&E and student financing available.