

Technology Architect Midrange Storage

Course outline

Module 1: Introduction to Midrange Storage

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QUESTION STATEMENT : Write a short description for Module 1: Introduction to Midrange Storage module for Technology Architect Midrange Storage course?

Lessons

- Overview of Midrange Storage Technologies
- Storage Area Network (SAN) Architecture
- Storage Virtualization
- Storage Management and Automation
- Backup and Recovery Strategies
- Disaster Recovery Planning
- Performance Tuning and Optimization
- Security and Compliance
- Capacity Planning and Forecasting
- Troubleshooting and Problem Resolution

After completing this module, students will be able to:

- Understand the fundamentals of midrange storage technology, including the components, architecture, and features of midrange storage systems.
- Identify the different types of midrange storage systems and their associated benefits and drawbacks.
- Analyze the requirements of an organization and recommend the most appropriate midrange storage solution.
- Implement and manage midrange storage systems, including configuring, monitoring, and troubleshooting.

Module 2: Storage Area Network (SAN) Fundamentals

Module 2 of the Technology Architect Midrange Storage course provides an introduction to Storage Area Network (SAN) fundamentals. It covers topics such as SAN components, SAN topologies, SAN protocols, SAN management, and SAN security. It also provides an overview of SAN design considerations and best practices.

Lessons

- Overview of SAN Technologies
- SAN Components and Topologies
- SAN Protocols and Standards
- SAN Security and Management
- SAN Performance and Troubleshooting
- SAN Design Considerations
- SAN Implementation and Migration
- SAN Storage Virtualization
- SAN Backup and Disaster Recovery
- SAN Best Practices

After completing this module, students will be able to:

- Understand the components and architecture of a SAN and how it is used to store and manage data.
- Identify the different types of SANs and their associated benefits and drawbacks.
- Configure and manage SANs using industry-standard tools and protocols.
- Troubleshoot SAN-related issues and optimize SAN performance.

Module 3: Storage Virtualization

Module 3 of the Technology Architect Midrange Storage course covers Storage Virtualization, which is the process of combining multiple physical storage devices into a single virtual storage device. This module will teach students how to use storage virtualization to improve storage utilization, reduce costs, and increase flexibility. Additionally, students will learn about the different types of storage virtualization, such as network-attached storage (NAS), storage area networks (SANs), and virtualized storage systems.

Lessons

- Overview of Storage Virtualization
- Benefits of Storage Virtualization
- Types of Storage Virtualization
- Storage Virtualization Architectures
- Storage Virtualization Solutions
- Storage Virtualization Performance Considerations
- Storage Virtualization Security Considerations
- Storage Virtualization Best Practices
- Storage Virtualization Troubleshooting
- Storage Virtualization Trends and Future Directions

After completing this module, students will be able to:

- Understand the fundamentals of storage virtualization and its benefits.
- Identify the different types of storage virtualization and their use cases.

- Analyze the impact of storage virtualization on performance and scalability.
- Design and implement a storage virtualization solution for a given environment.

Module 4: Storage Management and Automation

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QUESTION STATEMENT : Write a short description for Module 4: Storage Management and Automation module for Technology Architect Midrange Storage course?

Lessons

- Overview of Storage Management and Automation
- Storage Capacity Planning
- Storage Performance Monitoring and Tuning
- Storage Virtualization
- Storage Replication and Disaster Recovery
- Automated Storage Tiering
- Storage Security and Compliance
- Storage Automation Tools and Technologies
- Storage Automation Best Practices
- Storage Automation in the Cloud

After completing this module, students will be able to:

- Understand the different types of storage systems and their capabilities.
- Design and implement storage solutions that meet customer requirements.
- Automate storage management tasks using scripting and other tools.
- Monitor and troubleshoot storage systems to ensure optimal performance.

Module 5: Backup and Recovery Strategies

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QUESTION STATEMENT : Write a short description for Module 5: Backup and Recovery Strategies module for Technology Architect Midrange Storage course?

Lessons

- Overview of Backup and Recovery Strategies
- Types of Backup Strategies
- Planning for Backup and Recovery
- Implementing Backup and Recovery
- Testing Backup and Recovery Strategies
- Disaster Recovery Planning
- Backup and Recovery Best Practices
- Automating Backup and Recovery
- Cloud Backup and Recovery

- Data Archiving and Retention Strategies

After completing this module, students will be able to:

- Understand the importance of data backup and recovery strategies.
- Identify the different types of backup and recovery strategies.
- Implement backup and recovery strategies for midrange storage systems.
- Troubleshoot and resolve backup and recovery issues.

Module 6: Disaster Recovery Planning

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QUESTION STATEMENT : Write a short description for Module 6: Disaster Recovery Planning module for Technology Architect Midrange Storage course?

Lessons

- Understanding Disaster Recovery Planning Basics
- Developing a Disaster Recovery Plan
- Establishing a Disaster Recovery Team
- Identifying Critical Systems and Data
- Establishing Recovery Time Objectives
- Establishing Recovery Point Objectives
- Establishing Recovery Site Requirements
- Establishing Backup and Recovery Procedures
- Establishing Testing and Maintenance Procedures
- Establishing Documentation Requirements
- Establishing Communication and Notification Procedures
- Establishing Training Requirements
- Establishing Security Requirements
- Establishing Vendor Support Requirements
- Establishing Cost Estimation and Budgeting Requirements

After completing this module, students will be able to:

- Understand the importance of disaster recovery planning and its role in protecting data and systems.
- Develop a comprehensive disaster recovery plan that meets the needs of the organization.
- Identify the components of a disaster recovery plan and the steps necessary to implement it.
- Implement a disaster recovery plan that includes backup and recovery strategies, testing, and documentation.

Module 7: Performance Tuning and Optimization

Module 7 of the Technology Architect Midrange Storage course focuses on performance tuning and

optimization. It covers topics such as storage system performance analysis, storage system tuning, and optimization techniques. It also covers the use of performance monitoring tools and techniques to identify and resolve performance issues.

Lessons

- Understanding Performance Tuning and Optimization
- Analyzing System Performance
- Identifying Performance Bottlenecks
- Optimizing Storage Performance
- Optimizing Network Performance
- Optimizing Database Performance
- Optimizing Application Performance
- Implementing Performance Tuning Best Practices
- Troubleshooting Performance Issues
- Monitoring Performance Metrics

After completing this module, students will be able to:

- Understand the principles of performance tuning and optimization for midrange storage systems.
- Identify and troubleshoot performance issues in midrange storage systems.
- Implement best practices for performance tuning and optimization of midrange storage systems.
- Utilize tools and techniques to monitor and analyze performance of midrange storage systems.

Module 8: Security and Compliance

Module 8: Security and Compliance is a module in the Technology Architect Midrange Storage course that covers the fundamentals of security and compliance in the storage environment. It covers topics such as authentication, authorization, encryption, data integrity, and auditing. It also covers the various compliance standards and regulations that must be adhered to in order to ensure the security of the storage environment.

Lessons

- Understanding Security and Compliance Regulations
- Implementing Security and Compliance Policies
- Risk Management Strategies
- Data Encryption and Access Control
- Auditing and Monitoring Security and Compliance
- Disaster Recovery and Business Continuity Planning
- Security and Compliance Best Practices
- Security and Compliance in Cloud Computing
- Security and Compliance in Virtualization
- Security and Compliance in Mobile Computing

After completing this module, students will be able to:

- Understand the importance of security and compliance in the technology architecture of midrange storage.
- Identify and implement security measures to protect data and systems from unauthorized access.
- Implement compliance measures to ensure data is stored and accessed in accordance with applicable laws and regulations.
- Monitor and audit security and compliance measures to ensure they remain effective.

Module 9: Cloud Storage Solutions

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QUESTION STATEMENT : Write a short description for Module 9: Cloud Storage Solutions module for Technology Architect Midrange Storage course?

Lessons

- Overview of Cloud Storage Solutions
- Benefits and Challenges of Cloud Storage
- Types of Cloud Storage Solutions
- Security and Compliance Considerations for Cloud Storage
- Cloud Storage Architecture and Design
- Cloud Storage Performance and Scalability
- Cloud Storage Cost Analysis
- Cloud Storage Migration Strategies
- Cloud Storage Backup and Disaster Recovery
- Cloud Storage Monitoring and Management

After completing this module, students will be able to:

- Understand the different types of cloud storage solutions and their benefits.
- Analyze the cost and performance of cloud storage solutions.
- Design and implement a cloud storage solution for a given business requirement.
- Monitor and maintain cloud storage solutions for optimal performance.

Module 10: Storage Trends and Best Practices

Module 10 of the Technology Architect Midrange Storage course covers the latest storage trends and best practices. It provides an overview of the current storage landscape, including the latest technologies and solutions, and explores the various strategies and approaches for optimizing storage performance and reliability. The module also covers the fundamentals of storage security and compliance, and provides guidance on how to ensure data integrity and availability.

Lessons

- Overview of Storage Technologies
- Cloud Storage Solutions
- Data Storage Security
- Storage Capacity Planning

- Storage Performance Optimization
- Storage Virtualization
- Storage Consolidation Strategies
- Storage Automation and Orchestration
- Storage Disaster Recovery and Business Continuity
- Storage Cost Optimization Strategies

After completing this module, students will be able to:

- Understand the different types of storage technologies and their associated best practices.
- Analyze the current storage trends and identify the most suitable solutions for specific business needs.
- Develop strategies to optimize storage utilization and performance.
- Implement storage solutions that are cost-effective and secure.