

AZ-305: DESIGNING MICROSOFT AZURE INFRASTRUCTURE SOLUTIONS SYLLABUS

Section 1: Design a solution for logging and monitoring

- Design a log routing solution
- Recommend an appropriate level of logging
- Recommend monitoring tools for a solution

Section 2: Design authentication and authorization solutions

- Recommend a solution for securing resources with role-based access control
- Recommend an identity management solution
- Recommend a solution for securing identities

Section 3: Design governance

- Recommend an organizational and hierarchical structure for Azure resources
- Recommend a solution for enforcing and auditing compliance

Section 4: Design identities and access for applications

- Recommend solutions to allow applications to access Azure resources
- Recommend a solution that securely stores passwords and secrets
- Recommend a solution for integrating applications into Microsoft Azure Active Directory (Azure AD), part of Microsoft Entra
- Recommend a user consent solution for applications

Section 5: Design a data storage solution for relational data

- Recommend database service tier sizing
- Recommend a solution for database scalability
- Recommend a solution for encrypting data at rest, data in transmission, and data in use

Section 6: Design data integration

- Recommend a solution for data integration
- Recommend a solution for data analysis

Section 7: Recommend a data storage solution

- Recommend a solution for storing relational data
- Recommend a solution for storing semi-structured data
- Recommend a solution for storing non-relational data

Section 8: Design a data storage solution for non-relational data

- Recommend access control solutions to data storage
- Recommend a data storage solution to balance features, performance, and cost

Section 9: Design a solution for backup and disaster recovery

- Recommend a recovery solution for Azure, hybrid, and on-premises workloads that meets recovery objectives
- Understand the recovery solutions for containers
- Recommend a backup and recovery solution for compute
- Recommend a backup and recovery solution for databases
- Recommend a backup and recovery solution for unstructured data

Section 10: Design a solution for backup and disaster recovery

- Identify the availability requirements of Azure resources
- Recommend a high availability solution for compute
- Recommend a high availability solution for non-relational data storage
- Recommend a high availability solution for relational data storage

Section 11: Design a solution for backup and disaster recovery

- Recommend a virtual machine–based compute solution
- Recommend an appropriately sized compute solution based on workload requirements
- Recommend a container-based compute solution
- Recommend a serverless-based compute solution

Section 12: Design an application architecture

- Recommend a caching solution for applications
- Recommend a messaging architecture
- Recommend an event-driven architecture
- Recommend an automated deployment solution for your applications
- Recommend an application configuration management solution

- Recommend a solution for API integration

Section 13: Design migrations

- Evaluate a migration solution that leverages the Cloud Adoption Framework for Azure
- Assess and interpret on-premises servers, data, and applications for migration
- Recommend a solution for migrating applications and virtual machines
- Recommend a solution for migrating databases
- Recommend a solution for migrating unstructured data

Section 14: Design network solutions

- Recommend a network architecture solution based on workload requirements
- Recommend a connectivity solution that connects Azure resources to the internet
- Recommend a connectivity solution that connects Azure resources to on-premises networks
- Optimize network performance for applications
- Recommend a solution to optimize network security
- Recommend a load balancing and routing solution