AZ-301 Microsoft Azure Architect Design Training Curriculum

STRUCTURE

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"Learn translating complex business requirements into reliable and scalable cloud solutions with our detailed Curriculum for AZ 301 Certification Training"

Course Objectives:

- Prepare yourself for the certification exam and clear your certification exam in the first attempt
- Add an attractive credential in your resume that is really appreciated by Companies.
- Improve your overall Cloud management skills, azure development skills, solution designing, implementation skills, and explore more job prospects with better salary packages.
- Boost your social media profiles especially LinkedIn by adding this certification and become one of the top persons to be chosen by industries.

AZ 301 Certification Training Description:

The job role and responsibilities for an Azure Solution Architect include advising stakeholders and translating business requirements into secure, scalable, and reliable cloud solutions. Also, an Azure Solution Architect partners with cloud administrators, cloud DBAs, and clients to implement solutions.

After joining our Training program at Croma Campus, you will gain subject matter expertise in designing and implementing solutions that run on Microsoft Azure, including aspects like compute, network, storage, and security.

Here are some strong reasons why should you consider this certification course.

- Validate your technical skills like storage, networking, compute, security, and other Cloud operations on Microsoft Azure.
- Validate your solution designing and architect skills by successful implementation of cloud solutions at the workplace.
- Top-paying info-tech certification in the world.
- It provides you with global recognition for your knowledge, skills, and experience.
- The organization looks for those who know Oracle Cloud, AWS, Azure, etc.

Prerequisites for the Certification Exam:

A candidate for this exam should have advanced experience and knowledge across various aspects of IT operations, including networking, virtualization, identity, security, business continuity, disaster recovery, data management, budgeting, and governance–this role should manage how decisions in each area affect an overall solution.

In addition, this role should be proficient in at least one of these Azure knowledge domains: AZ 103 administration, AZ 203 development, or DevOps.

Necessary Details about Certification You must Know

- Certification Name – AZ-301 Microsoft Azure Architect Design
- Exam Duration: 150 minutes
- Number of Questions: 40-60
- Passing score: 700 (Out of 1000)

- Exam Cost: USD 165.00
- Validity: 2 years

Certification Exam Structure:

- Determine workload requirements (10-15%)
- Design for identity and security (20-25%)
- Design a data platform solution (15-20%)
- Design a business continuity strategy (15-20%)
- Design for deployment, migration, and integration (10-15%)
- Design an infrastructure strategy (15-20%)

Course Content:

Module 1: Introduction

- Course Overview
- Introduction to Cloud computing
- Introduction to Azure
- Self-hosting to cloud hosting
- Azure Services
- Azure Regions

Module 2: Gather Information and Requirements

- Identify compliance requirements
- Identify identity infrastructure
- Identify management infrastructure
- Identify service-oriented architectures
- Identify accessibility requirements
- Identify availability requirements
- Identify capacity planning and scalability requirements
- Identify deployment requirements
- Identify configurability
- Identify governance requirements
- Identify maintainability requirements
- Identify security requirements
- Identify Sizing Requirements
- Recommend Changes During Project Execution
- Evaluate Products and Services to Align with Solution
- Create testing scenarios

Module 3: Optimize Consumption Strategy

- Understand Consumption Strategy
- Why it is necessary?
- What are App Services?
- Optimize App Service Costs
- Optimize Compute Costs

- Optimize Identity Costs
- Optimize Network Costs
- Optimize Storage Costs

Module 4: Design an Auditing and Monitoring Strategy

- Define Auditing Strategy?
- Define Monitoring Strategy?
- Why are they needed?
- Define logical groupings (tags) for resources to be monitored
- Determine levels and storage locations for logs
- Plan for integration with monitoring tools
- Recommend appropriate monitoring tool(s) for a solution
- Specify mechanism for event routing and escalation
- Design auditing for compliance requirements
- Design auditing policies and traceability requirements

Module 5: Identity Management

- Define Identity
- What is Identity Management?
- Why do you need it?
- Choose an identity management approach
- Design an identity delegation strategy
- Design an identity repository
- Design self-service identity management
- Design user and persona provisioning
- Define personas
- Define roles
- Recommend appropriate access control strategy

Module 6: Design Authentication

- Choose an authentication approach
- Design a single-sign on approach
- Design for IPSec authentication
- Design for logon authentication
- Design for multi-factor authentication
- Design for network access authentication
- Design for remote authentication

Module 7: Design for Identity & Security

- Design Authorization
    - choose an authorization approach
    - define access permissions and privileges
    - design secure delegated access
    - recommend when and how to use API Keys

- Design for Risk Prevention for Identity
  - design a risk assessment strategy
  - evaluate agreements involving services or products from vendors and contractors
  - update solution design to address and mitigate changes to existing security policies,
  - standards, guidelines and procedures
- Design a Monitoring Strategy for Identity and Security
  - design for alert notifications
  - design an alert and metrics strategy
  - recommend authentication monitors

Module 8: Design Data Platform Solutions

- Design a Data Management Strategy
  - choose between managed and unmanaged data store
  - choose between relational and non-relational databases
  - design a data auditing strategy
  - design a data caching strategy
  - identify data attributes
  - recommend database service tier sizing
  - design a data retention policy
  - design for data availability
  - design for data consistency
  - design for data durability
  - design a data warehouse strategy
- Design a Data Protection Strategy
  - recommend geographic data storage
  - design an encryption strategy for data at rest
  - design an encryption strategy for data in transmission
  - design an encryption strategy for data in use
  - design a scalability strategy for data
  - design secure access to data
  - design a data loss prevention (DLP) policy
- Design and Document Data Flows
  - identify data flow requirements
  - create a data flow diagram
  - design a data flow to meet business requirements
  - design data flow solutions
  - design a data import and export strategy
- Design a Monitoring Strategy for the Data Platform
  - design for alert notifications
  - design an alert and metrics strategy
  - monitor Azure Data Factory pipelines

Module 9: Design a Site Recovery Strategy

- Design a recovery solution
- Design a site recovery replication policy

- Design for site recovery capacity
- Design for storage replication
- Design site failover and failback
- Design the site recovery network
- Recommend recovery objectives (Azure, on-prem, hybrid, Recovery Time Objective (RTO),
- Recovery Level Objective (RLO), Recovery Point Objective (RPO))
- Identify resources that require site recovery
- Identify supported and unsupported workloads
- Recommend a geographical distribution strategy

Module 10: Design for High Availability

- Design for application redundancy
- Design for autoscaling
- Design for data center and fault domain redundancy
- Design for network redundancy
- Identify resources that require high availability
- Identify storage types for high availability
- Design a disaster recovery strategy for individual workloads
- Design failover/failback scenarios
- Document recovery requirements
- Identify resources that require backup
- Recommend a geographic availability strategy

Module 11: Design a Data Archiving Strategy

- Define Data Archiving
- Data Archiving Strategy
- Need of Data Archiving Strategy
- recommend storage types and methodology for data archiving
- identify business compliance requirements for data archiving
- identify requirements for data archiving
- identify SLA(s) for data archiving

Module 12: Design Deployments

- Design a compute deployment strategy
- Design a container deployment strategy
- Design a data platform deployment strategy
- Design a messaging solution deployment strategy
- Design a storage deployment strategy
- Design a web app and service deployment strategy

Module 13: Design Migrations

- Recommend a migration strategy
- Design data import/export strategies during migration

- Determine the appropriate application migration method
- Determine the appropriate data transfer method
- Determine the appropriate network connectivity method
- Determine migration scope, including redundant, related, trivial, and outdated data
- Determine application and data compatibility

Module 14: Design Integration

- Design an API Integration Strategy
- Design an API gateway strategy
- Determine policies for internal and external consumption of APIs
- Recommend a hosting structure for API management

Module 15: Design an Infrastructure Strategy

- Design a Storage Strategy
  - design a storage provisioning strategy
  - design storage access strategy
  - identify storage requirements
  - recommend a storage solution
  - recommend storage management tools
- Design a Compute Strategy
  - design a compute provisioning strategy
  - design a secure compute strategy
  - determine appropriate compute technologies
  - design an Azure HPC environment
  - identify compute requirements
  - recommend management tools for compute
- Design a Networking Strategy
  - design a network provisioning strategy
  - design a network security strategy
  - determine appropriate network connectivity technologies
  - identify networking requirements
  - recommend network management tools
  - recommend network security solutions
- Design a Monitoring Strategy for Infrastructure
  - design for alert notifications
  - design an alert and metrics strategy

Module 16: Placement Guide

- Tips to clear an Interview
- Common Interview questions and answers
- AZ 301 Interview Questions and Answers
- Resume Building Guide
- Attempt for AZ 301 Global Certification Exam
- Start applying for Jobs