

Emerging Technologies

Microsoft Azure Certification Program

Curriculum

Program Outline :

Module 1: Fundamentals of Microsoft Azure

1. Introduction to Microsoft Azure

- Core principles, services, and tools of Microsoft Azure.
- Benefits of using Azure for cloud computing.
- Overview of Azure global infrastructure and regions.

2. Azure Service Models

- Understanding IaaS, PaaS, and SaaS on Microsoft Azure.
- Key differences and use cases for each service model.
- Selecting the appropriate service model for different applications.

Module 2: Advanced Azure Solution Architecture

3. Designing Azure Solutions

- Best practices for designing scalable and reliable Azure solutions.
- Applying the Azure Well-Architected Framework.
- Selecting the appropriate Azure services for specific use cases.

4. Azure Security and Compliance

- Ensuring security and compliance in Azure solutions.
- Implementing identity and access management with Azure Active Directory.

- Understanding data protection, encryption, and compliance requirements.

5. Optimizing Azure Performance

- Techniques for optimizing performance and cost-efficiency of Azure solutions.
- Implementing caching, content delivery networks (CDNs), and other performance-enhancing services.
- Monitoring and managing resource usage to optimize costs.

6. Azure Deployment and Management

- Managing Azure deployments using tools like Azure Resource Manager (ARM) templates, Azure DevOps, and Azure CLI.
- Automating deployments and configuration management.
- Best practices for managing and monitoring Azure resources.

Module 3: Practical Applications

7. Hands-on Azure Projects

- Real-world projects to apply Azure solution architecture skills.
- Designing and implementing cloud solutions for various scenarios.
- Collaborating with peers and mentors to solve complex challenges.

8. Azure Integration

- Integrating Azure solutions with existing on-premises and cloud systems.
- Using Azure Hybrid Cloud solutions to create seamless integrations.
- Best practices for data migration and synchronization.

Module 4: Capstone Project

9. Integration of Learned Skills

- Apply tools and techniques to design and implement a comprehensive Azure solution.
- Demonstrate your ability to solve real-world problems using Azure services.

10. Advanced Azure Techniques

- Deepening knowledge and exploring advanced Azure capabilities.
- Implementing advanced networking, security, and data management solutions.

Elective Modules

11. Data Ethics and Privacy

- Ethical considerations, privacy laws, and compliance strategies.

12. AI for Azure

- Implementing AI solutions in Azure architectures.

13. Big Data in Azure

- Managing big data applications in Azure environments.

14. Azure DevOps

- CI/CD pipelines, automation, and containerization with Docker and Kubernetes.

15. Azure Project Management

- Leading Azure projects and ensuring successful delivery.

16. Azure for IoT

- Integrating Azure solutions with IoT devices.

Websites:

- <https://chools.in/>
- <https://ramaqchools.com/>
- <https://www.choolsgroup.com/>