AZ-2010: Design and Implement Platform Engineering

Course Description

This course provides a comprehensive guide to designing and implementing platform engineering within modern enterprises. It covers the foundational principles, strategic alignment with business goals, and the practical aspects of building scalable, secure, and future-proof platforms. By taking this course, learners will gain the knowledge and skills needed to enhance developer productivity, ensure operational excellence, and drive continuous innovation.

Course Duration

1 day

Prerequisites

Successful learners will have prior knowledge and understanding of the following:

- Cloud computing concepts include understanding PaaS, SaaS, and IaaS implementations.
- Azure administration and Azure development with proven expertise in at least one of these areas.
- Intermediate to advanced DevOps concepts, including version control, Agile software development, and core software development principles. It would be helpful to have experience in an organization that delivers software.

Course Outline

1 - Foundations of Platform Engineering

- The Role of Platform Engineering in Modern Enterprises
- Core Principles of Platform Design
- Platform Engineering Capability Model
- Core Aspects of Platform Implementation
- Module assessment

2 - Design Secure and Scalable Platform Architectures

- Core Principles of Secure and Scalable Platform Design
- Security Considerations in Platform Architecture
- Scale Platform Architectures for Growth and Adaptability
- Automation and Resiliency for Modern Platforms
- Module assessment

3 - Implement Developer Self-Service

- Developer Self-Service Platform Architecture
- Governance and Security in Self-Service Workflows
- Developer Coding Environments
- Automation and Self-Service Tools
- Monitor and Audit Developer Activities
- Implement Microsoft Dev Box
- Module assessment

4 - Observability and Continuous Improvement

- The Importance of Observability in Modern Platforms
- Build Observability into Platform Architecture

- Metrics, Monitoring, and Alerts
- Automation for Incident Detection and Resolution
- Continuous Improvement through Feedback Loops
- Implementing Real-Time Monitoring with Azure Monitor
- Module assessment

5 - Strategic Platform Road Mapping

- Understand the Strategic Importance of Platform Engineering
- Develop a Scalable Platform Architecture
- Future-Proofing the Platform
- Continuous Improvement and Innovation Management
- Roadmap Development and Execution
- Risk Management in Platform Engineering
- Communicate the Roadmap to Stakeholders
- Implementing Self-Service Infrastructure with Bicep
- Module assessment

Who Should Attend

This course is designed for professionals involved in platform engineering, including software engineers, DevOps practitioners, IT architects, and technical leaders. It is also suitable for individuals responsible for designing, implementing, and managing platform solutions within their organizations. The target audience includes Software Engineers and Developers, DevOps Practitioners, IT Architects, Technical Leaders and Managers, Platform Engineers and Security and Compliance Professionals.