Microsoft

DP-201T00: Designing an Azure Data Solution

Agenda

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About this course

In this course, the students will design various data platform technologies into solutions that are in line with business and technical requirements. This can include on-premises, cloud, and hybrid data scenarios which incorporate relational, No-SQL or Data Warehouse data. They will also learn how to design process architectures using a range of technologies for both streaming and batch data.

The students will also explore how to design data security including data access, data policies and standards. They will also design Azure data solutions which includes the optimization, availability and disaster recovery of big data, batch processing and streaming data solutions.

Course Agenda

- Module 01 - Architecture Considerations
  - L01 - Describe the core principles for creating architectures
  - L02 - Design with Security in mind
  - L03 - Consider performance and scalability
  - L04 - Design for availability and recoverability
  - L05 - Design for efficiency and operations
  - L06 - Understand the course Case Study

- Module 2 - Azure Batch Processing Reference Architectures
  - L01 - Describe Lambda architectures from a Batch Mode Perspective
  - L02 - Design an Enterprise BI solution in Azure
  - L03 - Automate enterprise BI solutions in Azure
  - L04 - Architect an Enterprise-grade conversational bot in Azure

Course Agenda (*continued #1*)

- Module 03 - Azure Real-Time Reference Architectures
  - L01 - Lambda architectures for a Real-Time Mode Perspective
  - L02 - Architect a stream processing pipeline with Azure Stream Analytics
  - L03 - Design a stream processing pipeline with Azure Databricks.
  - L04 - Create an Azure IoT reference architecture

- Module 04 - Security Design Considerations
  - L01 - Defense in Depth Security Approach
  - L02 - Identity Protection
  - L03 - Infrastructure Protection
  - L04 - Encryption Usage
  - L05 - Network Level Protection
  - L06 - Application Security

Course Agenda (*continued #2*)

- Module 05 - Designing for Scale and Resiliency
  - L01 - Adjust Workload Capacity by Scaling
  - L02 - Optimize Network Performance
  - L03 - Design for Optimized Storage and Database Performance
  - L04 - Identifying Performance Bottlenecks
  - L05 - Design a Highly Available Solution
  - L06 - Incorporate Disaster Recovery into Architectures
  - L07- Design Backup and Restore strategies

- Module 06 - Design for Efficiency and Operations
  - L01 - Maximize the Efficiency of your Cloud Environment
  - L02 - Use Monitoring and Analytics to Gain Operational Insights
  - L03 - Use Automation to Reduce Effort and Error

Audience

Primary audience

The audience for this course is data professionals, data architects, and business intelligence professionals who want to learn about the data platform technologies that exist on Microsoft Azure

Secondary audience

The secondary audience for this course is individuals who develop applications that deliver content from the data platform technologies that exist on Microsoft Azure.

Prerequisites

In addition to their professional experience, students who take this training should have technical knowledge equivalent to the following courses:

Azure fundamentals

DP200: Implementing an Azure Data Solution