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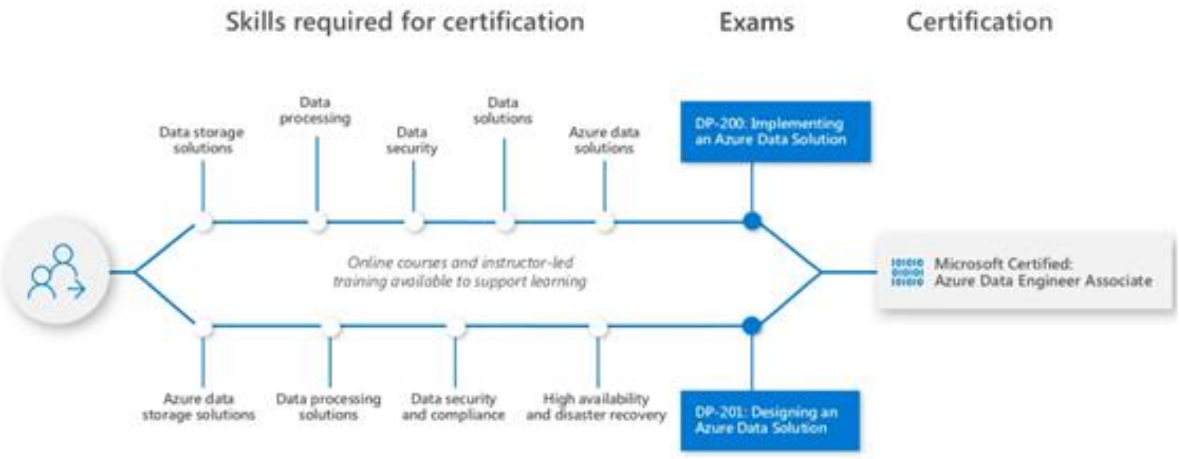
INTRODUCTION | DATABASE SOLUTIONS | DATA LAKE STORAGE | DATA FACTORY| STORAGE SOLUTIONS | SECURITY | STREAM ANALYTICS | AZURE BATCH

9 MODULE | 15 LABS | CERTFICATION ASSISTANCE

QUOTATION AND COURSE OUTLINE

DESIGNING AN AZURE DATA SOLUTION

EXAM DP 201- DESIGNING AN AZURE DATA SOLUTION



Course Materials

TechPledge will provide a customized set of Lecture Notes for each class scheduled along with Recorded video. You will be given a PDF file which you may make copies from, email to your participants, or make available via internal website.

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Learning Path for DP-201

Azure Solution Developer must have skills needed to design solutions that run on Azure. A Microsoft Azure Solution Developer must have expertise in compute, network, storage, Visual Studio, Database, data factory & security. At the TechPledge we provide the training which is always updated in line with the Azure Solution Developer Skills required by the industry and recommended by Microsoft. Below is the patch for training

Evolve your Implementation Skills

- *Azure architecture and service guarantees*
- *Manage services with Azure portal*
- *Security, responsibility and trust in Azure*
- *Apply and monitor infrastructure standards with Azure Policy.*
- *Control and organize Azure resources with Azure Resource Manager*

Manage Resources in Azure

- *Align requirements with cloud types and service models in Azure*
- *Control Azure services with the CLI*
- *Automate Azure tasks using scripts with PowerShell*
- *Predict costs and optimize spending for Azure*
- *Control and organize Azure resources with Azure Resource Manager*

Architect Great Solutions in Azure

- *Pillars of a great Azure architecture*
- *Design for security in Azure*
- *Design for performance and scalability in Azure*
- *Design Solutions for Different Customer Requirement*
- *Design for availability and recoverability in Azure*

Abilities Validated by the Certification

- Deploy and configure infrastructure
- Implement workloads and security
- Create and deploy apps
- Implement authentication and secure data
- Develop for the cloud and for Azure storage
- Data Analytics
- Determine workload requirements
- Design for identity and security
- Design a data platform solution
- Design a business continuity strategy
- Design for deployment, migration, and integration
- Design an infrastructure strategy

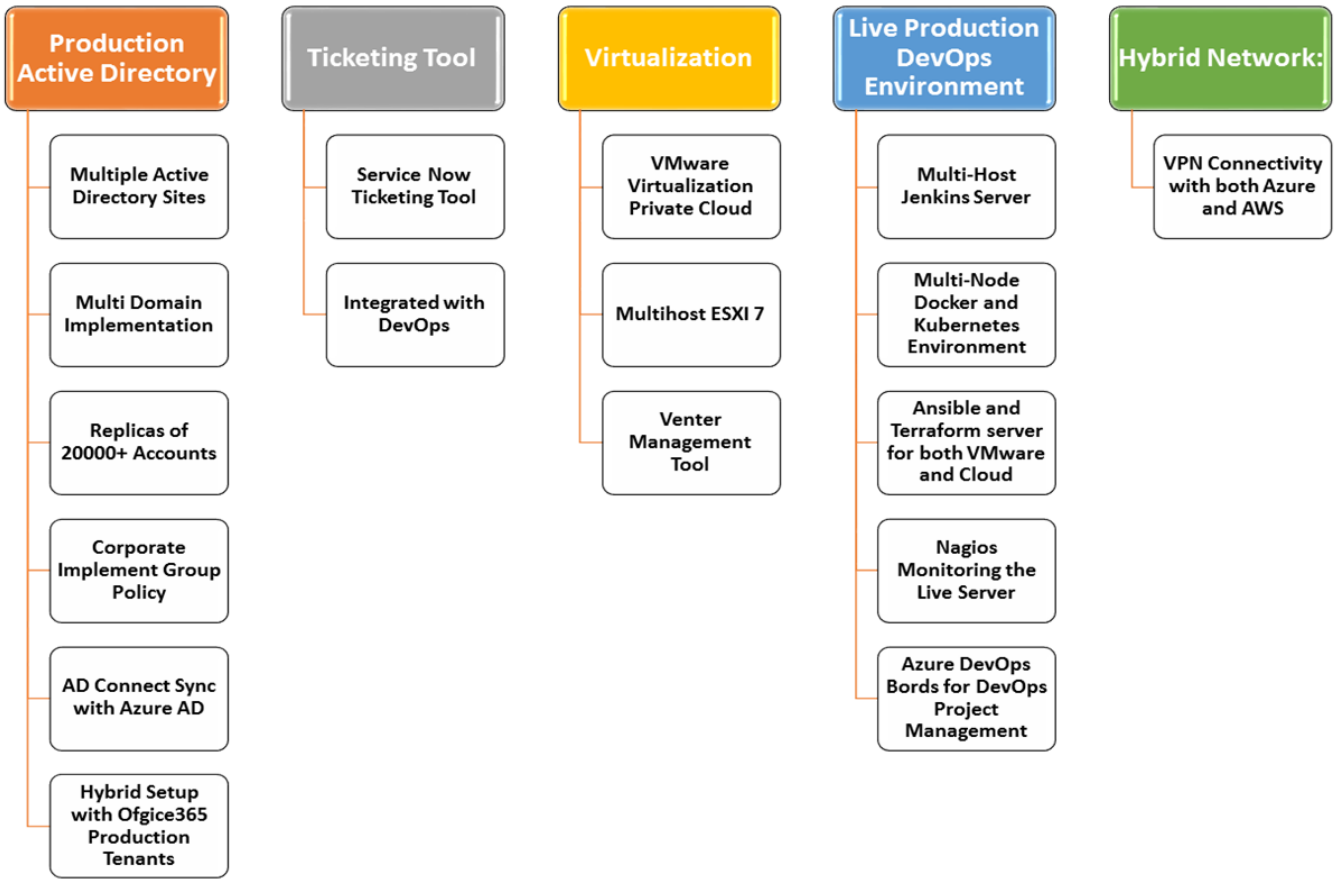
DP 201 Exam Details

Customer Immersion – Live Production Walkthrough

6 Hours Live walkthrough the complete Infrastructure Integration and Migration Process in production environment with full setup of Infrastructure Like **AD, Microsoft SQL , Microsoft Exchange, File Server , ADFS and** DevOps Tool Like **Jenkins , Ansible , Docker , AWS Code Deploy , AWS Code Pipeline , Azure Pipeline** and **Azure ARM** and Development Environment with Maven, Visual Studio and Python.

The Complete Setups is using **100** of **PowerShell** & **Linux Script** with **237 CI/CD scripts** (**Jason, Yamal**).

Below is the High-Level Setup Outline of our Customer Immersion Production Replicas. Student will get the access of this setup at end of the course for 6 hours with AD ID and Organization Email.



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Learn while doing with our Sandbox Environment

Azure Sandbox

- Connect with Azure Portal through the TechPledge Provide sandbox environment and play with it will all labs which you want to try.
- Create, destroy, and build Practical, scenario-based applications with ease. Our pre-configured, auto-provisioned servers allow you to try new skills, risk-free.

AWS Sandbox

- Connect with AWS Console through the TechPledge Provide sandbox environment and play with it will all labs which you want to try.
- Create, destroy, and build Practical, scenario-based applications with ease. Our pre-configured, auto-provisioned servers allow you to try new skills, risk-free.

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Course Outline

Design Data Architecture

- Understand Customer Requirement
- Design Data solutions with Storage, Database and Analytics
- High Availability Design of Data Solutions
- Design Data Solutions for Customer ease of management
- Security Design in Data Solutions
- Performance and Scalability
- **Lab 1:** Design the Data Solutions using Drawing tool for customer with App services and SQL database
- **Lab 2:** Design the Data Solutions using Drawing tool for customer with CDN and Storage

Recommend an Azure Data Solution Based on Requirements

- Design the right Data store for customer
- Design Big Data Architecture
- Calculate the price for the data storage
- **Lab 3:** Create a Flow chart for data storage

Azure Real-Time Reference Architectures

- Lambda architectures for a Real-Time Perspective
- Architect a stream processing pipeline with Azure Stream Analytics
- Design a stream processing pipeline with Azure Databricks
- Create an Azure IoT reference architecture
- **Lab 4:** Architect a stream processing pipeline with Azure Stream Analytics
- **Lab 5:** Create an Azure IoT reference architecture
- **Lab 6:** Design a stream processing pipeline with Azure Databricks

Design Relational Cloud Data Stores

- Partitioning in SQL Data
- Designing for SQL DB and SQL DW
- SQL Databases, SQL Data Warehouses, and Data Lakes
- Designing Data Distribution in Azure
- Designing for Scale in SQL DB
- Designing for Scale in SQL DW
- Designing for Disaster Recovery and High Availability
- SQL Database Automated Backup Strategies
- **Lab 7 :**. Design for DR and HA in Azure SQL Database
- **Lab 8 :**. Deploy a Managing an Azure SQL Database

Design Non-Relational Data Stores

- Design a good partition key.
- Designing for Global Distribution in Azure
- Designing for Consistency in Cosmos DB
- Choosing the Appropriate Cosmos DB API
- Azure Cosmo DB Provisioning and scalability
- Azure Cosmo DB Pricing Model
- Designing for Disaster Recovery and High Availability
- design big data architecture with Data Lake Gen 2
- **Lab 9:** Designing a Solution That Utilizes Cosmos DB, Data Lake Gen 2, or Blob Storage
- **Lab 10:** Setting Partition Keys in Azure Cosmos DB

Designing Real-Time Processing Solutions

- Stream Versus Batch Processing
- Stream processing in the larger picture of data architecture.
- Stream Analytics to create stream processing jobs
- Designing for Streaming in Databricks
- Optimizing Stream Analytics
- Optimizing Streaming in Databricks
- **Lab 11:** Create stream processing jobs and examine input, output, and query using the Azure Portal.
- **Lab 12:** Run a batch job using Azure Portal

Design Security for Source Data Access

- Planning for Secure private and service endpoints in the Azure Portal
- Authenticate with Azure Active Directory
- Authenticate with Access Keys
- Understanding of Key Vault
- **Lab 13:** Manage access, create an admin, and add SQL database users using Azure AD

- **Lab 14:** Access the azure Storage with Access Key in Azure Storage Explorer
- **Lab 15:** Create a Key Vault and storage the disk managed key for encryption

Design Security for Data Policies and Standards

- Defense in Depth model vs Zero Trust
- Role-based access control (RBAC)
- encrypted at rest and in motion for Azure SQL Server, SQL Database, SQL Data Warehouse, Cosmos DB, and Data Lake
- SQL database auditing
- Dynamic data masking (DDM)
- Plan an Archiving Strategy for Blob
- Designing a data retention policy
- Tape versus archive tier, Cool versus archive,
- Azure Data Security Best Practices
- **Lab 15 :** Design a Data Retention Policy in Azure Blob
- **Lab 16**: Design RBAC access for the resources
- **Lab 17 :** Design SQL database auditing

Design for Efficiency and Operations

- Maximizing the Efficiency of your Cloud Environment
- Use Monitoring and Analytics to Gain Operational Insights
- Key capabilities and benefits
- Use Automation to Reduce Effort and Error

Course Fee

Call for Price