Exam 473: Design and Implement Cloud Data Platform Solutions Objective Domain

Audience Profile

This exam is for candidates who are interested in validating their skills in designing and implementing Microsoft data platform solutions. Candidates for this exam will have relevant work experience in on-premises and cloud-based platform solutions.

Candidates should know the features and capabilities of the Microsoft data platform to be able to identify tradeoffs and make decisions for designing public and hybrid cloud solutions. Candidates who take this exam are expected to be able to define the appropriate infrastructure and platform solutions to meet the required functional, operational, and deployment requirements through the solution lifecycle.

Note: This document shows tracked changes to objectives and scoping statements. These changes are effective as of June 2017.

Skills Measured

Design and Implement Database Solutions for Microsoft SQL Server and Microsoft Azure SQL Database (20-25%)

Design a hybrid SQL Server solution

- Design ~~Geo/~~a Disaster Recover topology for a hybrid deployment
- Design a data storage architecture
- Design a security architecture
- Design a data load strategy
- Design a data synchronization strategy

Implement SQL Server on Azure virtual machines (VMs)

- Provision SQL Server o~~i~~n an Azure VM
- Configure firewall rules
- Configure and optimize storage
- Migrate an on-premises database to Azure
- Configure and optimize VM sizes by workload

Design a ~~SQL~~ database solution on Azure SQL D~~d~~atabase and SQL Server in Azure~~ solution~~

- Design a solution architecture
- Design a Geo/DR topology
- Design a security architecture

Design a data load strategy
Determine the appropriate service tier
Determine the appropriate deployment scenario
Determine IaaS vs PaaS
Determine application access in Azure

Implement Azure SQL Database

Provision Azure SQL Database
Configure firewall rules
Configure Aactive Ggeo-Rreplication
Migrate an on-premises database to SQL Database
Configure for scale and performance

~~Design and Implement Data Warehousing on Azure~~
~~Design a data warehousing solution on Azure~~
~~Design a data load strategy and topology~~
~~Configure SQL Data warehouse~~
~~Migrate an on-premises database to SQL DW~~

Design and implement MySQL and PostgreSQL database solutions in Azure
Design security
Design a data load strategy
Determine the appropriate service tier
Provision databases and servers
Configure firewall rules
Migrate to Azure
Configure for scale and performance

~~Manage~~ Design and Implement ~~DBMS~~ Security (25-30%)

Design and implement SQL Server database security

Configure firewalls
Manage logins, users, and roles
Assign permissions
Configure auditing
Configure Ttransparent Ddatabase Eencryption (TDE)
Configure row-level security
Configure data encryption
Configure data masking
Configure Always Encrypted

Design and ~~i~~Implement Azure SQL Database security

- Configure firewalls
- Manage logins, users, and roles
- Assign permissions
- Configure auditing
- Configure row-level security
- Configure data encryption
- Configure data masking
- Configure Always Encrypted
- Configure Automatic Threat Detection

Design for High-Availability, Disaster Recovery, and Scalability (25-30%)

Design and implement high-availability solutions

- Design a high-availability solution topology
- Design a high-~~-~~availability solution for SQL o~~i~~n Azure V~~irtual M~~~~achine~~s
- Implement ~~H~~high-~~-a~~~~A~~vailability s~~S~~olutions ~~(between on-premises and Azure)~~
- ~~Design cloud-based backup solutions~~
- ~~Implement backup and recovery strategies~~

Design and implement scalable solutions~~.~~

- ~~-~~Design a scale-~~-~~out solution
- Implement multi-master scenarios with database replication
- Implement elastic scale for Azure SQL Database

Design and ~~i~~Implement Azure SQL Database data recovery

- Implement self-service restore
- Copy and export databases
- Implement long-term retention backups

Monitor and Manage Database Implementations ~~i~~on Azure (25-30%)

Monitor and troubleshoot SQL Server VMs on Azure

- Monitor database and instance activity
- Monitor by using DMVs and DMFs
- Monitor performance and scalability

Monitor and troubleshoot SQL Database

- Monitor and troubleshoot SQL Database

Monitor database activity
Monitor by using DMVs and DMFs
Monitor performance and scalability

Automate and manage database implementations ion Azure

Automate and mManage SQL Server ion Azure VMs with PowerShell
Automate and mManage Azure SQL Database with PowerShell
Configure Automation automation and rRunbooks