AZURE DATABASE ADMINISTRATOR ASSOCIATE (DP – 300)

1. Plan and Implement Data Platform Resources

1.1   Evaluate and recommend Azure data services based on requirements.

1.2   Configure firewall rules for Azure SQL resources.

1.3   Configure authentication in Azure SQL.

1.4   Configure secure endpoints for Azure SQL.

1.5   Manage Azure Key Vault.

2. Implement a Secure Environment

2.1   Configure database authentication by using platform and database tools.

2.2   Configure database authorization by using platform and database tools.

2.3   Implement Azure AD-based security.

2.4   Configure security for data at rest.

2.5   Configure security for data in transit.

2.6   Monitor and respond to security incidents in Azure.

3. Monitor and Optimize Operational Resources

3.1   Monitor and troubleshoot SQL Server performance.

3.2   Monitor and troubleshoot Azure SQL Database performance.

3.3   Monitor and troubleshoot Managed Instance performance.

3.4   Optimize query performance.

3.5   Automate tasks with PowerShell for Azure SQL.

3.6   Configure automatic tuning.

4. Optimize Query Performance
4.1   Review query plans.
4.2   Evaluate indexes.
4.3   Evaluate and implement locking and blocking.
4.4   Monitor and trace queries.
4.5   Collect performance data.

5. Plan and Implement High Availability and Disaster Recovery
5.1   Implement high availability solutions.
5.2   Implement Azure SQL Database automated backups.
5.3   Implement database replication.
5.4   Implement Always On availability groups.
5.5   Implement Auto-failover groups.
5.6   Implement Azure Site Recovery.

6. Plan and Implement a Backup and Restore Strategy
6.1   Perform backup and restore operations.
6.2   Perform online and offline database restores.
6.3   Create a long-term backup retention policy.
6.4   Configure Azure Backup.

7. Manage and Monitor Databases
7.1   Manage database statistics.
7.2   Monitor the performance of queries.
7.3   Monitor and troubleshoot SQL Server.
7.4   Monitor and troubleshoot Azure SQL Database.
7.5   Monitor and troubleshoot Managed Instance.