# **DP201 - Designing an Azure Data Platform Solution**

## Lab 5 – Designing for Scale and Resiliency

Exercise 3

**Task 1: Design a Highly Available Solution**

Use the table below to document the service feature that can support the scale requirements for AdventureWorks. The choice should be justified.

Below are examples of the requirements that could be identified.

|  |  |  |  |
| --- | --- | --- | --- |
| Requirement | Service | Feature | Justification |
| To maintain the same level of availability for the mission critical Current Sales / Ordering system | SQL Database | Premium Tier | Premium and Business Critical service tiers leverage the Premium availability model, which integrates compute resources (SQL Server Database Engine process) and storage (locally attached SSD) on a single node. High availability is achieved by replicating both compute and storage to additional nodes creating a three to four-node cluster. |
| Customer Service / Presales requirement. The customer service / presales chat bot needs to respond to requests for data in near real-time regardless of where the customer is located. As requested by the organization. All services that are proposed should have a comprehensive business continuity. | Cosmos DB | Multi region, multiple write replication | To ensure high write and read availability, configure your Cosmos account to span at least two regions with multiple-write regions. This configuration will provide the highest availability, lowest latency, and best scalability for both reads and writes backed by SLAs. To learn more, see how to configure your Cosmos account with multiple write-regions. |
| Protection of staging data/predictive analytics source data in the Azure Data Lake Store meeting the requirement that all services that are proposed should have a comprehensive business continuity. | Data Lake Store Gen II | Read-access geo-redundant storage (RA-GRS) | Read-access geo-redundant storage (RA-GRS) maximizes availability for your storage account. RA-GRS provides read-only access to the data in the secondary location, in addition to geo-replication across two regions. |
| No availability feature | SQL Data Warehouse | N/A | N/A |
| No availability feature | Azure Stream Analytics | N/A | N/A |
| No availability feature | Azure Data Factory | N/A | N/A |