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	Data Lake Store Gen II	Read-access geo-redundant	Read-access geo-redundant storage (RA-GRS) maximizes availability for your storage account. RA-

Store meeting the requirement that all services that are proposed should have a comprehensive business continuity.		storage (RA-GRS)	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