

DP201 - Designing an Azure Data Platform Solution

Lab 5 – Designing for Scale and Resiliency

Exercise 2

Task 1: Design for Optimized Storage and Database Performance

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.

Service	Feature	Justification
Azure SQL Database	Dynamic scale	There is a requirement for Adventureworks to meet the demand during the months of November and December for the purchase of products during the holiday season demand.
Azure SQL Database	Elastic Database Transactions	This could be used to support the global expansion of the Current Sales / Ordering system.
Azure SQL Database	Read Scale-Out	Can be used for database read-only workloads. An example being that a read only database can be used as a data source to populate a data warehouse, or related staging environments such as a data lake
Azure SQL Data Warehouse	Scaling	The on-premises data warehouse server has been struggling to process the reporting data in a timely manner. In addition, there is a requirement to have the same level of performance achieved in November and December when data volumes typically increase.
Azure SQL Data Warehouse	Partitioning	A technique, when used in conjunction with scaling and PolyBase appropriately, can aid the speed at which data is loaded into a data warehouse.
Azure SQL Data Warehouse	PolyBase	A technology that can be used to aid the efficient loading of data into a data warehouse. This is further improved if the appropriate scaling and partitioning is used.

Azure Cosmos DB	Multi master	To deal with the global coverage of customer service, and the need to use a bot to handle requests in near real-time regardless of where the customer is located. Cosmos DB's multi-master feature can help provide quick response times
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