# **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 storage and database optimizations for AdventureWorks. The choice should be justified.

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| Service | Feature | Justification |
| Azure SQL Database | TDE | Don’t put load on the application having to deal with Encryption but encrypt using transparent server handled methods. |
| Azure SQL Database | Sharding | May be needed depending on the scale of the application. |
| Azure SQL Database | Read Only Scale Out |  |
| Cosmos DB | Consistency Level | Eventual …. Speed is more important then consistency globally as real time requirements will be used in the geography chat is coming from. |
| Cosmos DB | GRS – Multi Master | Globally replicated to allow quick responses in each country operated within. |
| Cosmos DB | RU’s | Appropriate level of RU’s for use. |
| Synapse | Dedicated SQL Pools | Make sure that the SQL pool is sufficient to handle reporting grunt power required but switch off when not in use. |
| Synapse | Partitioning | Allow the Polybase and clusters to work best by splitting data into logical partitions that it can spray across. |
| Databricks | Custer | Ensure that we use the correct level of cluster to handle requirements. |
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