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

## Lab 6 – Designing for Efficiency and Operations

Exercise 1

**Task 1: Maximize the Efficiency of your Cloud Environment.**

List the Azure price calculator below:

|  |
| --- |
| <https://azure.microsoft.com/en-gb/pricing/calculator> |

Provide a list of best practises that the IS department should follow to minimize costs.

Below are examples of the requirements that could be identified. (in no particular order)

|  |  |  |
| --- | --- | --- |
| # | Best practise | Service |
| 1 | Use SQL Database Elastic Pools to dynamically scale to optimizes performance and cost | SQL Database |
| 2 | Scale up Data Warehouse Units (DWU) when loading data, scale down once the loading is complete. | Azure Data Warehouse |
| 3 | Right size Data Service usage. i.e Use the correct DTUs, DWUs, RTUa etc | SQL Database  Azure Data Warehouse  Cosmos DB |
| 4 | Pause Azure SQL DWU compute operations when the data warehouse is not in use. | Azure Data Warehouse |
| 5 | Use Azure Blob Storage for data that is not queried, such as Archive Data | Azure Blob Store |
| 6 | Use Data Lake Store Gen II for data that is to be queried | Data Lake Store Gen II |
| 7 | Use partitioning to spread data across all the distributed storage as evenly as possible | Cosmos DB  Azure Data Warehouse |
| 8 | Minimize the use of multiple write regions to meet business requirements while minimizing costs | Cosmos DB |
| 9 | Modify Streaming units to account for data volumes, query complexity and latency for streaming data | Stream Analytics |