# Lab 1 – Exercise 3. Data Migration Technologies

## Scenario A

The customer has an application that uses many databases currently residing in an on-premises version of Microsoft SQL Server 2008. The total database footprint is large at 12 TB, and rapidly growing by several terabytes per year. The application also has tight integration with SQL Server Reporting Services for its reporting functionality. The existing SAN storage, which the databases are located on, is almost at capacity, expensive to expand, and nearing the end of its life. The application is critical to the company, with a moderate transaction rate, and any downtime would have significant business impact. Small maintenance windows are available in which to make changes to maximize the availability of the application. The high growth rate has seen more and more time being spent by DBAs and sysadmins to keep everything running.

From the scenario, which database platform technology would be appropriate?

**Answer**

SQL Server on a Virtual Machine

There is a dependency on running the application with SQL Server Reporting Services. This rules out Azure SQL Database as it does not have support for reporting services. In addition, the size of the database exceeds the storage limits for Azure SQL Database Managed Instance.

## Scenario B

The customer in this example has a SQL Server that stores databases that fulfil departmental needs. The server on which the databases are hosted is a quad core server, with 16 GB of memory, and is used as a backend to simple data access for spreadsheets and an Access form. There are six databases in total that take up 350 MB of storage. The maximum number of concurrent connections to this server is twelve.

From the scenario, which database platform technology would be appropriate?

**Answer**

Azure SQL Database in single database mode

Azure SQL Database in single database mode would meet the requirements will minimizing costs. Whilst you could use Azure SQL Database in elastic pool mode this would be more expensive. Given the small size and low volatility with the server, the need to use elastic pools is not required.