# ProTech Professional Technical Services, Inc.



### DP-900T00-A: Microsoft Azure Data Fundamentals

# **Course Summary**

#### **Description**

In this course, students will learn the fundamentals of database concepts in a cloud environment, get basic skilling in cloud data services, and build their foundational knowledge of cloud data services within Microsoft Azure. Students will identify and describe core data concepts such as relational, non-relational, big data, and analytics, and explore how this technology is implemented with Microsoft Azure. They will explore the roles, tasks, and responsibilities in the world of data. The students will explore relational data offerings, provisioning and deploying relational databases, and querying relational data through cloud data solutions with Microsoft Azure. They will explore non-relational data offerings, provisioning and deploying non-relational databases, and non-relational data stores with Microsoft Azure. Students will explore the processing options available for building data analytics solutions in Azure. They will explore Azure Synapse Analytics, Azure Databricks, and Azure HDInsight. Students will learn what Power BI is, including its building blocks and how they work together.

#### **Objectives**

At the end of this course, students will be able to:

- Describe core data concepts in Azure
- Explain concepts of relational data in Azure
- Explain concepts of non-relational data in Azure
- Identify components of a modern data warehouse in Azure

#### **Topics**

- Explore core data concepts
- Explore relational data in Azure
- Explore non-relational data in Azure
- Explore modern data warehouse analytics in Azure

#### **Audience**

This course is designed for individuals who want to learn the fundamentals of database concepts in a cloud environment, get basic skilling in cloud data services, and build their foundational knowledge of cloud data services within Microsoft Azure.

#### **Prerequisites**

There are no prerequisites for this course.

#### **Duration**

One days

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## **Course Outline**

#### I. Explore core data concepts

Students will learn the fundamentals of database concepts in a cloud environment, get basic skilling in cloud data services, and build their foundational knowledge of cloud data services within Microsoft Azure. Students will identify and describe core data concepts such as relational, non-relational, big data, and analytics, and explore how this technology is implemented with Azure. Students will explore the roles, tasks, and responsibilities in the world of data.

- A. Explore core data concepts
- B. Explore roles and responsibilities in the world of data
- C. Describe concepts of relational data
- D. Explore concepts of non-relational data
- E. Explore concepts of data analytics

#### II. Explore relational data in Azure

Students will learn the fundamentals of database concepts in a cloud environment, get basic skilling in cloud data services, and build their foundational knowledge of cloud data services within Microsoft Azure. Students will explore relational data offerings, provisioning and deploying relational databases, and querying relational data through cloud data solutions with Azure.

- A. Explore relational data offerings in Azure
- B. Explore provisioning and deploying relational database offerings in Azure
- C. Query relational data in Azure

#### III. Explore non-relational data in Azure

Students will learn the fundamentals of database concepts in a cloud environment, get basic skilling in cloud data services, and build their foundational knowledge of cloud data services within Azure. Students will explore non-relational data offerings, provisioning and deploying non-relational databases, and non-relational data stores with Microsoft Azure.

- A. Explore non-relational data offerings in Azure
- B. Explore provisioning and deploying non-relational data services on Azure
- C. Manage non-relational data stores in Azure

#### IV. Explore modern data warehouse analytics in Azure

Students will learn the fundamentals of database concepts in a cloud environment, get basic skilling in cloud data services, and build their foundational knowledge of cloud data services within Azure. Students will explore the processing options available for building data analytics solutions in Azure. Students will explore Azure Synapse Analytics, Azure Databricks, and Azure HDInsight. Students will learn what Power BI is, including its building blocks and how they work together.

- A. Examine components of a modern data warehouse
- B. Explore data ingestion in Azure
- C. Explore data storage and processing in Azure
- D. Get started building with Power BI