Project Outline

**Data Source:**

The primary source of our price data will come directly from TD Ameritrade’s REST API. This does not mean that we cannot use a different data source, but it might mean that the code will need to be modified to adjust to the different source.

Specifically, we will use the historical price endpoint and capture 5-minute price data for a list of approximately 15 stocks. The data once, cleaned will be stored in an Azure SQL Database.

**Azure Services:**

This project will leverage the following Azure Services.

* Azure Key Vault
  + To be used to store sensitive information like 3rd-party API Keys and connection strings to other services.
* Azure Functions
  + Will be used to capture Historical data from the TD Ameritrade API.
* Azure SQL Server
  + To be used to store the data in structured format that can be queried at different points.
* Azure Blob Storage
  + Used to store important files that other services will need to use.
* Azure Data Factory
  + Used to build a simple data pipeline that will transform the data and store it in the necessary location.
* Azure Machine Learning Workspace
  + Used to develop, train, and deploy our machine learning model.
* Azure Web API
  + Used to access our machine learning model through a simple API that can be called from different scripts.