Exercise Part 2: Create Compute Resources

After you have created an Azure Machine Learning workspace, you can use it to manage the various assets and resources you need to create machine learning solutions. At its core, Azure Machine Learning is a platform for training and managing machine learning models, for which you need compute on which to run the training process.

Create compute targets

Compute targets are cloud-based resources on which you can run model training and data exploration processes.

- 1. In <u>Azure Machine Learning studio</u>, view the **Compute** page (under **Manage**). This is where you manage the compute targets for your data science activities. There are four kinds of compute resource you can create:
 - **Compute Instances**: Development workstations that data scientists can use to work with data and models.
 - **Compute Clusters**: Scalable clusters of virtual machines for on-demand processing of experiment code
 - Inference Clusters: Deployment targets for predictive services that use your trained models.
 - Attached Compute: Links to existing Azure compute resources, such as Virtual Machines or Azure Databricks clusters.
- 2. On the **Compute Instances** tab, add a new compute instance with the following settings. You'll use this as a workstation from which to test your model:
 - Virtual Machine type: CPU
 - **Virtual Machine size**: Standard_DS11_v2 (Choose **Select from all options** to search for and select this machine size)
 - **Compute name**: enter a unique name
 - Enable SSH access: Unselected
- 3. While the compute instance is being created, switch to the **Compute Clusters** tab, and add a new compute cluster with the following settings. You'll use this to train a machine learning model:
 - Virtual Machine priority: Dedicated
 - Virtual Machine type: CPU
 - Virtual Machine size: Standard_DS11_v2 (Choose Select from all options to search for and select this machine size)
 - **Compute name**: enter a unique name
 - Minimum number of nodes: 0
 - Maximum number of nodes: 2
 - Idle seconds before scale down: 120
 - Enable SSH access: Unselected

Note:

If you decide not to complete this module, be sure to stop your compute instance to avoid incurring unnecessary charges to your Azure subscription. The compute targets will take some time to be created. You can move onto the next unit while you wait.