Work with Compute

All Python code runs in the context of an environment, which determines the Python packages available. The code can be run in an environment on your local workstation, or on some other compute target; such as a cluster for increased scalability.

In this exercise, you'll explore *environments* and *compute targets*, which you can use to run experiments in Azure Machine Learning.

Before You start

If you have not already done so, complete the *Create an Azure Machine Learning Workspace* exercise to create an Azure Machine Learning workspace and compute instance, and clone the notebooks required for this exercise.

Open Jupyter

While you can use the **Notebooks** page in Azure Machine Learning studio to run notebooks, it's often more productive to use a more fully-featured notebook development environment like *Jupyter*.

1. In Azure Machine Learning studio, view the **Compute** page for your workspace; and on the **Compute Instances** tab, start your compute instance if it is not already running.
2. When the compute instance is running, click the **Jupyter** link to open the Jupyter home page in a new browser tab.

Work with environments and compute targets

In this exercise, the code to work with compute is provided in a notebook.

1. In the Jupyter home page, browse to the **/users/*your-user-name*/mslearn-dp100** folder where you cloned the notebook repository, and open the **Work with Compute** notebook.
2. Then read the notes in the notebook, running each code cell in turn.
3. When you have finished running the code in the notebook, on the **File** menu, click **Close and Halt** to close it and shut down its Python kernel. Then close all Jupyter browser tabs.

Clean-up

If you're finished working with Azure Machine Learning for now, in Azure Machine Learning studio, on the **Compute** page, on the **Compute Instances** tab, select your compute instance and click **Stop** to shut it down. Otherwise, leave it running for the next lab.

> **Note**: Stopping your compute ensures your subscription won't be charged for compute resources. You will however be charged a small amount for data storage as long as the Azure Machine Learning workspace exists in your subscription. If you have finished exploring Azure Machine Learning, you can delete the Azure Machine Learning workspace and associated resources. However, if you plan to complete any other labs in this series, you will need to repeat the *Create an Azure Machine Learning Workspace* exercise to create the workspace and prepare the environment first.