Create an Azure Machine Learning workspace

100 XP

5 minutes

Data scientists expend a lot of effort exploring and pre-processing data, and trying various types of model-training algorithms to produce accurate models, which is time consuming, and often makes inefficient use of expensive compute hardware.

Azure Machine Learning is a cloud-based platform for building and operating machine learning solutions in Azure. It includes a wide range of features and capabilities that help data scientists prepare data, train models, publish predictive services, and monitor their usage. Most importantly, it helps data scientists increase their efficiency by automating many of the time-consuming tasks associated with training models; and it enables them to use cloud-based compute resources that scale effectively to handle large volumes of data while incurring costs only when actually used.

Create an Azure Machine Learning workspace

To use Azure Machine Learning, you create a *workspace* in your Azure subscription. You can then use this workspace to manage data, compute resources, code, models, and other artifacts related to your machine learning workloads.

> **Note**
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> This module is one of many that make use of an Azure Machine Learning workspace, including the other modules in the **Create no-code predictive models with Azure Machine Learning** learning path. If you are using your own Azure subscription, you may consider creating the workspace once and reusing it in other modules. Your Azure subscription will be charged a small amount for data storage as long as the Azure Machine Learning workspace exists in your subscription, so we recommend you delete the Azure Machine Learning workspace when it is no longer required.

If you don't already have one, follow these steps to create a workspace:

1. Sign into the Azure portal using the Microsoft credentials associated with your Azure subscription.
2. Select **+ Create a resource**, search for *Machine Learning*, and create a new **Machine Learning** resource the following settings:
    - **Subscription**: *Your Azure subscription*
    - **Resource group**: *Create or select a resource group*
    - **Workspace name**: *Enter a unique name for your workspace*
    - **Region**: *Select the geographical region closest to you*
    - **Storage account**: *Note the default new storage account that will be created for your workspace*
    - **Key vault**: *Note the default new key vault that will be created for your workspace*
    - **Application insights**: *Note the default new application insights resource that will be created for your workspace*

- **Container registry**: None (*one will be created automatically the first time you deploy a model to a container*)

3. Wait for your workspace to be created (it can take a few minutes). Then go to it in the portal.
4. On the **Overview** page for your workspace, launch Azure Machine Learning studio (or open a new browser tab and navigate to https://ml.azure.com), and sign into Azure Machine Learning studio using your Microsoft account. If prompted, select your Azure directory and subscription, and your Azure Machine Learning workspace.
5. In Azure Machine Learning studio, toggle the ☰ icon at the top left to view the various pages in the interface. You can use these pages to manage the resources in your workspace.

You can manage your workspace using the Azure portal, but for data scientists and Machine Learning operations engineers, Azure Machine Learning studio provides a more focused user interface for managing workspace resources.

Next unit: Create compute resources