

DP-3007: Train and deploy a machine learning model with Azure Machine Learning

Course Details

Course Code: DP-3007

Duration: 1 day

Notes:

- This course syllabus should be used to determine whether the course is appropriate for the students, based on their current skills and technical training needs.
- Course content, prices, and availability are subject to change without notice.
- Terms and Conditions apply

Elements of this syllabus are subject to change.

About this course

To train a machine learning model with Azure Machine Learning, you need to make data available and configure the necessary compute. After training your model and tracking model metrics with MLflow, you can decide to deploy your model to an online endpoint for real-time predictions. Throughout this learning path, you explore how to set up your Azure Machine Learning workspace, after which you train and deploy a machine learning model.

Prerequisites

- None

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Make data available in Azure Machine Learning

Learn about how to connect to data from the Azure Machine Learning workspace. You're introduced to datastores and data assets.

Learning objectives

In this module, you learn how to:

- Access data by using Uniform Resource Identifiers (URIs).
- Connect to cloud data sources with datastores.
- Use data asset to access specific files or folders.

Work with compute targets in Azure Machine Learning

Learn how to work with compute targets in Azure Machine Learning. Compute targets allow you to run your machine learning workloads. Explore how and when you can use a compute instance or compute cluster.

Learning objectives

In this module, you'll learn how to:

- Choose the appropriate compute target.
- Work with compute instances and clusters.
- Manage installed packages with environments.

Work with environments in Azure Machine Learning

Learn how to use environments in Azure Machine Learning to run scripts on any compute target.

Learning objectives

In this module, you'll learn how to:

- Understand environments in Azure Machine Learning.
- Explore and use curated environments.
- Create and use custom environments.

Run a training script as a command job in Azure Machine Learning

Learn how to convert your code to a script and run it as a command job in Azure Machine Learning.

Learning objectives

In this module, you'll learn how to:

- Convert a notebook to a script.
- Test scripts in a terminal.
- Run a script as a command job.
- Use parameters in a command job.

Track model training with MLflow in jobs

Learn how to track model training with MLflow in jobs when running scripts.

Learning objectives

In this module, you learn how to:

- Use MLflow when you run a script as a job.
- Review metrics, parameters, artifacts, and models from a run.

Register an MLflow model in Azure Machine Learning

Learn how to log and register an MLflow model in Azure Machine Learning.

Learning objectives

In this module, you'll learn how to:

- Log models with MLflow.
- Understand the MLmodel format.
- Register an MLflow model in Azure Machine Learning.

Deploy a model to a managed online endpoint

Learn how to deploy models to a managed online endpoint for real-time inferencing.

Learning objectives

In this module, you'll learn how to:

- Use managed online endpoints.
- Deploy your MLflow model to a managed online endpoint.
- Deploy a custom model to a managed online endpoint.
- Test online endpoints.