

## COURSE OUTLINE



**Course Name:** Train And Deploy A Machine Learning Model With Azure Machine Learning

**Course Code:** MS-DP3007

DURATION	SKILL LEVEL	DELIVERY METHOD	TRAINING CREDITS	TECHNOLOGY
1 Day	Intermediate	VIL/TILT	N/A	Analytics & Data Management

### Course Overview

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.

### Course Content

#### Module 1: 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.

#### Lesson

- Introduction
- Understand URIs
- Create a datastore
- Create a data asset

- Exercise – Make data available in Azure Machine Learning
- Knowledge check

## Module 2: 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.

### Lesson

- Introduction
- Choose the appropriate compute target
- Create and use a compute instance
- Create and use a compute cluster
- Exercise – Work with compute resources
- Knowledge check

## Module 3: Work with environments in Azure Machine Learning

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

### Lesson

- Introduction
- Understand environments
- Explore and use curated environments
- Create and use custom environments
- Exercise – Work with environments
- Knowledge check

## Module 4: 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.

### Lesson

- Introduction
  - Convert a notebook to a script
  - Run a script as a command job
  - Use parameters in a command job
  - Exercise – Run a training script as a command job
  - Knowledge check
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## Module 5: Track model training with MLflow in jobs

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

### Lesson

- Introduction
- Track metrics with MLflow
- View metrics and evaluate models
- Exercise – Use MLflow to track training jobs
- Knowledge check

## Module 6: Register an MLflow model in Azure Machine Learning

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

### Lesson

- Introduction
- Log models with MLflow
- Understand the MLflow model format
- Register an MLflow model
- Exercise – Log and register models with MLflow
- Knowledge check

## Module 7: Deploy a model to a managed online endpoint

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

### Lesson

- Introduction
- Explore managed online endpoints
- Deploy your MLflow model to a managed online endpoint
- Deploy a model to a managed online endpoint
- Test managed online endpoints
- Exercise – Deploy an MLflow model to an online endpoint
- Knowledge check

## Follow on Course

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