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

Purpose
This course is designed for students who are training machine learning models in their daily job.

Course description
This course is designed to be delivered in one full day. The course is designed as a blended learning experience that combines instructor-led training with online materials on the Microsoft Learn platform (https://docs.microsoft.com/learn). Students are encouraged to use the content on Learn as reference materials to reinforce what they learn in class and to explore topics in more depth.

Learning objectives
After completing this course, students will be able to:

- Make data available in Azure Machine Learning.
- Work with compute targets in Azure Machine Learning.
- Run a training script as a command job in Azure Machine Learning.
- Track model training with MLflow in jobs.
- Register an MLflow model in Azure Machine Learning.
- Deploy a model to a managed online endpoint.

Audience prerequisites
- Familiarity with the data science process. The course doesn't elaborate on data science concepts.
- Familiarity with Python. The course focuses on the Python SDK for interacting with Azure Machine Learning.

Course Schedule

Estimated time	Module	Classroom activity
30 minutes	Introduction	Introduce yourself and get familiar with your audience

120 minutes	Configure the Azure Machine Learning workspace	Explore Azure Machine Learning (5 minutes) Make data available in Azure Machine Learning (15 minutes) Demo the exercise (15 minutes) Work with compute resources in Azure Machine Learning (15 minutes) Exercise (45 minutes) Work with environments in Azure Machine Learning (10 minutes) Demo the exercise (15 minutes)
90 minutes	Train and track machine learning models in Azure Machine Learning	Run a training script as a command job in Azure Machine Learning (15 minutes) Demo the exercise (15 minutes) Track model training with MLflow in jobs (15 minutes) Exercise (45 minutes)
90 minutes	Deploy a model with Azure Machine Learning	Register an MLflow model in Azure Machine Learning (15 minutes) Demo the exercise (15 minutes)
		Deploy a model to a managed online endpoint (15 minutes) Exercise (45 minutes)
15 minutes	Conclusion – Wrap-up	Create opportunity for final questions and follow-up actions (exam overview)

Labs

The labs must be completed within the lab environment provided by your lab hosting provider. Detailed, step-by-step instructions are provided for each lab and presented as part of the UI experience within your lab environment.

At the time the courses were released, the lab instruction had been thoroughly tested and the lab steps were 100% accurate. However, given the nature of Microsoft's cloud products and the fact that Microsoft releases UI updates on a regular basis, it's possible that at some point in time, the UI for a given feature may change so that it no longer matches the lab instruction.