

DP-100: Designing and Implementing a Data Science Solution on Azure

Duration: 4 days

Day 01: Explore the Azure Machine Learning workspace

- Create an Azure Machine Learning workspace
- Identify Azure Machine Learning assets
- Train models in the workspace
- Explore developers tool for workspace interaction
- Explore the Python SDK and CLI
- Exercise - Explore the workspace
- Exercise - Explore the developer tools

Day 02: Work with data and Automated Machine Learning in Azure Machine Learning

- Understand URIs
- Create a data store and data asset
- Run an Automated Machine Learning experiment
- Evaluate and compare models
- Exercise - Make data available in Azure Machine Learning
- Exercise - Find the best classification model with Automated Machine Learning

Day 03: Train models with scripts and Optimize model training in Azure Machine Learning

- Run a training script as a command job in Azure Machine Learning
- Track model training with MLflow in jobs
- Track metrics and evaluate models
- Perform hyper parameter tuning with Azure Machine Learning
- Use a sweep job for hyper parameter tuning
- Create components
- Create a pipeline
- Run a pipeline job

- Exercise - Run a training script as a command job
- Exercise - Use MLflow to track training jobs
- Exercise - Run a sweep job
- Exercise - Run a pipeline job

Day 04: Deploy and consume models with Azure Machine Learning

- Managed online endpoints and Batch endpoints
- Explore managed online endpoints
- Deploy your MLflow model to a managed online endpoint
- Deploy a model to a managed online endpoint
- Understand and create batch endpoints
- Deploy your MLflow model to a batch endpoint
- Deploy a custom model to a batch endpoint
- Exercise - Deploy an MLflow model to an online endpoint
- Exercise - Deploy an MLflow model to a batch endpoint