

Azure ML Ops

Course Description: This 2-day Azure ML Ops course is designed to provide participants with a comprehensive understanding of Azure Machine Learning Operations (ML Ops) and its role in the development and deployment of machine learning models at scale. Participants will learn how to set up an Azure ML Ops environment, create and manage Azure ML experiments and pipelines, version control and collaborate with team members, deploy models to Azure Kubernetes Service (AKS), and monitor and maintain Azure ML deployments. The course will also cover best practices for using Azure ML Ops and provide participants with the skills and knowledge they need to implement Azure ML Ops in their organizations.

Target Audience: This workshop is designed for data scientists, machine learning engineers, DevOps engineers, and IT professionals who are interested in learning how to implement Azure ML Ops to develop and deploy machine learning models at scale. Participants should have a basic understanding of machine learning concepts and programming experience in Python.

Day 1:

Module 1: Introduction to Azure ML Ops

- What is Azure ML Ops?
- Why do we need Azure ML Ops?
- Overview of the Azure ML Ops workflow

Module 2: Setting up the Azure ML Ops Environment

- Creating an Azure ML workspace
- Configuring Azure DevOps and GitHub for Azure ML Ops
- Setting up the Azure ML Ops service connection

Module 3: Creating and Running Azure ML Experiments

- Overview of Azure ML Experiments
- Creating an Azure ML Experiment
- Running an Azure ML Experiment
- Viewing experiment results and logs

Module 4: Creating and Managing Azure ML Pipelines

- Introduction to Azure ML Pipelines
- Creating an Azure ML Pipeline

- Running an Azure ML Pipeline
- Monitoring and Troubleshooting Azure ML Pipelines

Day 2:

Module 5: Version Control and Collaboration with Azure ML Ops

- Setting up version control for Azure ML assets
- Collaborating with team members using Azure ML Ops
- Configuring continuous integration and delivery for Azure ML projects

Module 6: Model Deployment with Azure ML Ops

- Introduction to Azure ML Model Deployment
- Creating a scoring script and environment file
- Creating an Azure ML Deployment Target
- Deploying a model to Azure Kubernetes Service (AKS)

Module 7: Monitoring and Maintaining Azure ML Deployments

- Monitoring Azure ML Deployments with Application Insights
- Scaling and Updating Azure ML Deployments
- Troubleshooting Azure ML Deployments

Module 8: Wrap-up and Next Steps

- Best practices for using Azure ML Ops
- Recap of key concepts and features
- Next steps for implementing Azure ML Ops in your organization