

Azure Machine Learning DP 100

This course is designed for data scientists who want to develop and manage machine learning solutions on the cloud and who already have some familiarity with Python and machine learning frameworks like Scikit-Learn, PyTorch, and Tensorflow. In this course, students will learn how to build comprehensive Microsoft Azure solutions.

Duration :

Language : english

Price : 25000

What you will learn?

- Create the AzureML Workspace
- Create a Dataset
- Explore the AzureML Dataset
- Understanding the AzureML Compute Resources
- Deploy a real-time endpoint using Designer
- Consume Model
- Access Workspace, Datastore and Datasets using SDK
- Pandas Dataframe and AzureML Dataset conversions
- Upload local data to storage account via datastore
- Simple Python Script in Designer
- Execute Python Script using Zip Bundle

Features

- Course material
- Course resources
- On demand recorded videos
- Practical exercises
- Quizzes
- Assignments
- Course completion certificate

Requirements

- System with Internet Connection
- Interest to learn
- Dedication

Course Curriculum

Set up Azure Machine Learning Workspace

- Understand the AzureMLService Architecture
- Create the AzureML Workspace
- View and Manage Workspace Settings
- Overview of New AzureML Studio
- What is AzureML Datastore and Dataset
- Create and Register a Datastore
- Create a Dataset
- Explore the AzureML Dataset
- Understanding the AzureML Compute Resources
- Create a Compute Cluster and Compute Instance

Model Training and Run Experiment

- What is an AzureML Pipeline
- Create a pipeline using AzureML Designer
- Submit the Designer Pipeline run

Deploy and Consume the Models

- Create an Inference Pipeline
- Deploy a real-time endpoint using Designer
- Consume Model
- Create a batch inference pipeline using Designer
- Run a Batch Inference Pipeline from Designer
- Result

Data Processing using AzureML Designer

- Get Data to the workspace
- Import Data to the workspace from external sources
- Edit Metadata - Column Names
- Understanding the Run
- Edit Metadata - Data Type
- Export Data to the Blob Storage
- Add Columns to the Dataset
- Add Rows to the Dataset
- Normalization of Data Part 1
- Normalization of Data Part 2

- Clean Missing Data
- Partition and Sample Data Part 1
- Partition and Sample Data Part 2

Azure Machine Learning with Azure

- Introduction to AzureML SDK

Set Up Azure Machine Learning Workspace using sdk

- Create AzureML Workspace using SDK part 1
- Verify the Workspace and Write the Workspace Config File
- Create and Register a Datastore using AzureML SDK
- Create and Register a Dataset using SDK part 1
- Create and Register a Dataset using SDK part 2
- Access Workspace, Datastore and Datasets using SDK
- Pandas Dataframe and AzureML Dataset conversions
- Upload local data to storage account via datastore

Run Experiments and Train Models

- Set up
- Overview of Architecture
- Create Sample Experiment part 1
- Create Sample Experiment part 2
- Run Sample Experiment
- Azureml Environment part 1
- Azureml Environment part 2
- Azureml Environment part 3
- Azureml Environment part 4
- Azureml Environment part 5
- Train and Run a Model Script in AzureML Part 1
- Train and Run a Model Script in AzureML Part 2
- Train and Run a Model Script in AzureML Part 3
- Provisioning Compute Cluster Using SDK Part 1
- Provisioning Compute Cluster Using SDK Part 2
- Automate Model Training using AzureML SDK
- Define Pipeline Steps
- Define Training Steps

- Built the pipeline
- Command Line Arguments
- Data preparation script
- Training script
- Run the pipeline part 1
- Run the pipeline part 2
- Run the pipeline part 3

Using Python Scripts in AzureML

- Simple Python Script in Designer
- Execute Python Script using Zip Bundle
- Execute Python Script using Zip Bundle Demo