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

Duration: 4 Days **Course Code: M-DP100** **Delivery Method: Virtual Learning**

Overview:

Exclusive - Learn how to operate machine learning solutions at cloud scale using Azure Machine Learning.
Learn how to operate machine learning solutions at cloud scale using Azure Machine Learning. This course teaches you to leverage your existing knowledge of Python and machine learning to manage data ingestion and preparation, model training and deployment, and machine learning solution monitoring with Azure Machine Learning and MLflow.

Virtual Learning

This interactive training can be taken from any location, your office or home and is delivered by a trainer. This training does not have any delegates in the class with the instructor, since all delegates are virtually connected. Virtual delegates do not travel to this course, Global Knowledge will send you all the information needed before the start of the course and you can test the logins.

Target Audience:

This course is designed for data scientists with existing knowledge of Python and machine learning frameworks like Scikit-Learn, PyTorch, and Tensorflow, who want to build and operate machine learning solutions in the cloud.

Objectives:

- Students will learn to:
- Design a machine learning solution
- Explore and configure the Azure Machine Learning workspace
- Work with data in Azure Machine Learning
- Work with compute in Azure Machine Learning
- Experiment with Azure Machine Learning
- Use notebooks for experimentation in Azure Machine Learning
- Train models with scripts in Azure Machine Learning
- Optimize model training with Azure Machine Learning
- Manage and review models in Azure Machine Learning
- Deploy and consume models with Azure Machine Learning

Prerequisites:

Before attending this course, students must have:

- A fundamental knowledge of Microsoft Azure
- Experience of writing Python code to work with data, using libraries such as Numpy, Pandas, and Matplotlib.
- Understanding of data science; including how to prepare data, and train machine learning models using common machine learning libraries such as Scikit-Learn, PyTorch, or Tensorflow.

Testing and Certification

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

Content:

Module 1: Design a machine learning solution

- There are many options on Azure to train and consume machine learning models. Which service best fits your scenario can depend on a myriad of factors. Learn how to identify important requirements and when to use which service when you want to use machine learning models.

Module 2: Explore and configure the Azure Machine Learning workspace

- Throughout this learning path you explore and configure the Azure Machine Learning workspace. Learn how you can create a workspace and what you can do with it. Explore the various developer tools you can use to interact with the workspace. Configure the workspace for machine learning workloads by creating data assets and compute resource

Module 3: Work with data in Azure Machine Learning

- Learn how to work with data in Azure Machine Learning. Whether you want to access data in notebooks or scripts, you can read data directly, through datastores, or data assets.

Module 4: Work with compute in Azure Machine Learning

- Learn how to work with compute targets and environments in the Azure Machine Learning workspace.

Module 5: Experiment with Azure Machine Learning

- Learn how to find the best model with automated machine learning (AutoML) and by experimenting in notebooks.

Module 6: Use notebooks for experimentation in Azure Machine Learning

- Learn how to use Azure Machine Learning notebooks for experimentation. Similar to Jupyter, the notebooks are ideal for exploring your data and developing a machine learning model.

Module 7: Train models with scripts in Azure Machine Learning

- To prepare your machine learning workloads for production, you'll work with scripts. Learn how to train models with scripts in Azure Machine Learning.

Module 8: Optimize model training with Azure Machine Learning

- Learn how to optimize model training in Azure Machine Learning by using scripts, jobs, components and pipelines.

Module 9: Manage and review models in Azure Machine Learning

- Learn how to manage and review models in Azure Machine Learning by using MLflow to store your model files and using responsible AI features to evaluate your models.

Module 10: Deploy and consume models with Azure Machine Learning

- Learn how to deploy a model to an endpoint. When you deploy a model, you can get real-time or batch predictions by calling the endpoint.

Further Information:

For More information, or to book your course, please call us on Head Office 01189 123456 / Northern Office 0113 242 5931

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