

## DP - 100T01 : Designing and Implementing a Data Science Solution on Azure

### Course Outline

#### **Module 1: Introduction to Azure Machine Learning**

- Getting Started with Azure Machine Learning
- Azure Machine Learning Tools
- **Lab:** Creating an Azure Machine Learning Workspace
- **Lab:** Working with Azure Machine Learning Tools

#### **Module 2: No-Code Machine Learning with Designer**

- Training Models with Designer
- Publishing Models with Designer
- **Lab:** Creating a Training Pipeline with the Azure ML Designer
- **Lab:** Deploying a Service with the Azure ML Designer

#### **Module 3: Running Experiments and Training Models**

- Introduction to Experiments
- Training and Registering Models
- **Lab:** Running Experiments
- **Lab:** Training and Registering Models

#### **Module 4: Working with Data**

- Working with Datastores
- Working with Datasets
- **Lab:** Working with Datastores
- **Lab:** Working with Datasets

#### **Module 5: Compute Contexts**

- Working with Environments
- Working with Compute Targets
- **Lab:** Working with Environments
- **Lab:** Working with Compute Targets

#### **Module 6: Orchestrating Operations with Pipelines**

- Introduction to Pipelines
- Publishing and Running Pipelines
- **Lab:** Creating a Pipeline
- **Lab:** Publishing a Pipeline

#### **Module 7: Deploying and Consuming Models**

- Real-time Inferencing
- Batch Inferencing
- **Lab:** Creating a Real-time Inferencing Service
- **Lab:** Creating a Batch Inferencing Service

### **Module 8: Training Optimal Models**

- Hyperparameter Tuning
- Automated Machine Learning
- **Lab:** Tuning Hyperparameters
- **Lab:** Using Automated Machine Learning

### **Module 9: Interpreting Models**

- Introduction to Model Interpretation
- Using Model Explainers
- **Lab:** Reviewing Automated Machine Learning Explanations
- **Lab:** Interpreting Models

### **Module 10: Monitoring Models**

- Monitoring Models with Application Insights
- Monitoring Data Drift
- **Lab:** Monitoring a Model with Application Insights
- **Lab:** Monitoring Data Drift

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