

KOENIG SOLUTIONS · COURSE OUTLINE

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

Learn to design, train, deploy and manage machine learning models and generative AI apps using Azure Machine Learning and Azure AI Foundry.

4 Days

32 HOURS

6

MODULES

22

TOPICS

COURSE OVERVIEW

The DP-100T01: Designing and Implementing a Data Science Solution on Azure course provides an in-depth exploration of Azure's machine learning capabilities. It covers the entire data science process from Data preparation, Model training, Model deployment, and Model management. Learners will gain practical experience with Azure Machine Learning Service and Azure Machine Learning Studio, learning how to create, train, optimize, and deploy machine learning models at scale. Throughout the course, participants will engage in hands-on labs, such as creating an Azure Machine Learning workspace, running experiments, working with Datastores and datasets, and orchestrating Machine learning workflows with Pipelines. They will also explore real-time and Batch inferencing, ensuring their models can respond promptly or handle large-scale processing. By mastering Hyperparameter tuning, Automated Machine Learning, and Model interpretation, students will be well-equipped to build responsible AI solutions. They'll also delve into the best practices for Monitoring models to maintain optimal performance over time, using tools like Application Insights and Data drift monitoring. This course is ideal for aspiring and existing data scientists looking to harness the power of Azure to streamline and enhance their Machine learning workflows.

WHO THIS COURSE IS FOR

The DP-100T01 course is designed for professionals seeking to implement data science solutions on Azure's cloud platform.

Data Scientists

AI Engineers

Machine Learning Engineers

Cloud Solutions Architects

IT Professionals with a focus on data analytics

Software Developers interested in data science and machine learning

Technical Leads managing data science teams

Data Analysts aiming to advance in machine learning

DevOps Engineers focused on ML/AI lifecycle management

Professionals preparing for Azure Data Scientist Associate certification

What You Will Learn

- Explain Azure Machine Learning workspace resources and assets
- Configure compute targets and environments in Azure Machine Learning
- Apply Automated Machine Learning to find a classification model
- Track model training with MLflow in notebooks and jobs
- Apply hyperparameter tuning and run pipelines in Azure Machine Learning
- Register models and review the Responsible AI dashboard
- Deploy models to managed online and batch endpoints
- Build and evaluate generative AI apps in Azure AI Foundry

COURSE SYLLABUS

6 Modules, 22 Topics

01

Explore and Configure the Azure Machine Learning Workspace

TOPICS

- Explore Azure Machine Learning workspace resources and assets
- Explore developer tools for workspace interaction
- Make data available in Azure Machine Learning
- Work with compute targets in Azure Machine Learning
- Work with environments in Azure Machine Learning

02

Experiment with Azure Machine Learning

TOPICS

- Find the best classification model with Automated Machine Learning
- Track model training in Jupyter notebooks with MLflow

03

Optimize Model Training with Azure Machine Learning

TOPICS

- Run a training script as a command job in Azure Machine Learning
- Track model training with MLflow in jobs
- Perform hyperparameter tuning with Azure Machine Learning
- Run pipelines in Azure Machine Learning

04

Manage and Review Models in Azure Machine Learning

TOPICS

- Register an MLflow model in Azure Machine Learning
- Create and explore the Responsible AI dashboard for a model in Azure Machine Learning

05

Deploy and Consume Models with Azure Machine Learning

TOPICS

Deploy a model to a managed online endpoint · Deploy a model to a batch endpoint

05

Develop Generative AI Apps in Azure AI Foundry Portal

TOPICS

- Introduction to Azure AI Foundry
- Explore and deploy models from the model catalog in Azure AI Foundry portal
- Get started with prompt flow to develop language model apps in the Azure AI Foundry
- Build a RAG-based agent with your own data using Azure AI Foundry
- Fine-tune a language model with Azure AI Foundry
- Evaluate the performance of generative AI apps with Azure AI Foundry
- Responsible generative AI

WHAT IS INCLUDED

Everything You Need to Succeed

- Koenig course material for every module
- Delivery by certified instructors and subject matter experts
- Hands-on exercises throughout the course
- Course completion certificate from Koenig

ABOUT KOENIG

Who We Are

Established in 1993, Koenig Solutions is a globally recognised training provider with 35+ technology partnerships, 5,000+ training programmes and a network of certified instructors and subject matter experts, supporting individuals and enterprise teams worldwide.

FLEXIBLE DELIVERY

Learn the Way That Suits You

Classroom Training

Live Online Classes (ILO)

Fly-Me-A-Trainer (FMAT)

Flexi (Self-Paced)

1-on-1 Training

Ready to Get Started?

Talk to a learning advisor about schedules, group training and customised delivery.

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