

Data Science Fundamentals Training

This course teaches you to train, manage, and deploy machine learning models on Azure. The course focuses on Azure Machine Learning, exploring the service and all its features like assessing data, managing compute, tracking the training machine learning models, implementing Responsible AI principles, and deploying models to endpoints.

Learning Objectives

After completing this training, participants should be well-prepared to apply data science techniques within the Azure ecosystem to solve real-world problems and achieve their certification as an Azure Data Scientist Associate.

- Design machine learning solutions.
- Create and manage assets and resources in the Azure Machine Learning workspace, using the portal, the studio, the Azure CLI, and especially the Python SDK (v2).
- Build and run pipelines with the no-code designer in the Azure Machine Learning studio.
- Use Automated Machine Learning to explore featurization and algorithms.
- Train and track machine learning models in Azure Machine Learning notebooks using MLflow.
- Train and track machine learning models using scripts as Azure Machine Learning jobs, using MLflow.
- Create, run, and schedule Azure Machine Learning pipelines.
- Deploy models to real-time and batch endpoints.
- Apply Responsible AI principles to data, models, and model training.
- Design a MLOps solution and design for monitoring and retraining.

Course Pre-requisites

Some of the concepts covered in the course require a basic understanding of mathematics, such as the ability to interpret charts. The course includes hands-on activities that involve working with data and running code, so a knowledge of fundamental programming principles will be beneficial.

Fundamental knowledge of the types of services on Microsoft Azure that you can use to create artificial intelligence solutions will be helpful.

Trainees will require an <u>Azure subscription</u> in which they have administrative level access.

Course Delivery Method

This course will be delivered using PowerPoint slides for explaining concepts and Hands-on exercises, these practical components allow participant to apply their knowledge, practice skills, and gain a deeper understanding.





Website

Plot 21A, Olubunmi Rotimi Street, off Abike Sulaiman street, Lekki Phase 1, Lagos, Nigeria. 1338 Leo Stan Ekeh Way, Area 3, Abuja, Nigeria.

Course Outline

- 1. Overview on Azure Al Services
- 2. Design a machine learning solution.
- 3. Explore the Azure Machine Learning solution.
- 4. Make data available in Azure Machine Learning
- 5. Work with compute in Azure Machine Learning
- 6. Use no-code machine learning with the Azure Machine Learning Designer
- 7. Automate machine learning model selection with Azure Machine Learning
- 8. Use notebooks for experimentation in Azure Machine Learning
- 9. Train models with scripts in Azure Machine Learning
- 10. Optimize model training in Azure Machine Learning
- 11. Manage and review models in Azure Machine Learning
- 12. Deploy and consume models with Azure Machine Learning
- 13. Design a machine learning operations (MLOps) solution

Exam Prep

This training will prepare candidates for a Data Science Solution on Azure exam covering these topics:

- Design and prepare a machine learning solution (20-25%)
- Explore data and train models (35-40%)
- Prepare a model for deployment (20-25%)
- Deploy and retrain a model (10–15%)

Certificate

Upon successful completion of this training, trainees will be awarded a Microsoft partner accredited certificate

Time Schedule

This section contains the proposed time schedule for this training.

5 working days required for training completion.

Category	No. of Days	Date
Batch A	5	Feb 5th - Feb 9th 2024
Batch B	5	Feb 12th - Feb 16th 2024
Batch C	5	Feb 19th - Feb 23rd 2024

