training code: DP-100 / ENG DL 4d / EN

Designing and Implementing a Data Science Solution on Azure

Authorized training Microsoft Designing and Implementing a Data Science Solution on Azure **DP-100 on-line** course. This course is for **data scientists**

Training recipients

The training is intended for people interested in broadening their knowledge and skills within the area of machine learning models, especially it is aimed at scientists dealing with data and people responsible for trainings and implementing machine learning models.
The course includes such topics as:

- the process of data science and the role of data scientist, it is then used to understand how Azure services might support and extend the process of data science
- the use of Azure Machine Learning service to automate end-to-end process of data learning
- Machine Learning Process and how AutoML and HyperDrive services of Azure Machine Learning might automate some of its laborous parts
- Automatic management of monitoring Machine Learning models in Azure Machine Learning service

Benefits

Obtaining necessary knowledge about the use of Azure services for development, training and implementing solutions for Machine Learning. The course starts with the review of Azure services handling data science. From this moment onward it focuses on using Azure Machine Learning service, the most important service to learn Azure data in order to automate data learning process.
The course focuses on Azure platform and does not teach the student how to invent data science. It is assumed that students already know about it.

Training program

01: Design a machine learning solution
- Design a machine learning model training solution

02: Explore and configure the Azure Machine Learning workspace
- Explore the Azure Machine Learning workspace
- 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

03: Experiment with Azure Machine Learning
- Explore Automated Machine Learning 20
- Find the best classification model with
- Automated Machine Learning
- Track model training in notebooks with MLflow

04: Optimize model training with Azure Machine Learning
- 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

05: Manage and evaluate models with Azure Machine Learning
- Register an MLflow model in Azure Machine Learning
- Create and explore the Responsible AI dashboard

06: Deploy and consume models with Azure Machine Learning
- Deploy a model to a managed online endpoint
- Deploy a model to a batch endpoint

07: Optimize language models for generative AI applications
- Explore and deploy models from the model catalog in Azure AI Foundry
- Get started with prompt flow in 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

Expected preparation of the participant

People attending the training should have the knowledge about Azure basics, data science, including how to prepare data, train the models and assess competitive models in order to choose the best one, as well as develop in Python programming language and use Python libraries: pand, scikit-learn, matplotlib

and seaborn.
An ability to use the materials in English language.
Pre-training:**DP-900, AI-900, AZ-900**
To increase the comfort of work and training’s effectiveness we suggest using an additional monitor. The lack of additional monitor does not exclude participation in the training, however, it significantly influences the comfort of work during classes.

Training Includes

- manual in electronic form available on the platform: https://learn.microsoft.com/pl-pl/training/
- access to Altkom Akademia's student portal

Language

- **Training**: English
- **Materials**: English

Examination method

On-line exam. Record at: https://home.pearsonvue.com/Clients/Microsoft.aspx

Duration

4 days / 28 hours

Examination description

After the **DP-100** course, you can take **Microsoft** certification **exams**:an Authorized Test Center,online being monitored by an offsite proctor. Details on the website:https://docs.microsoft.com/en-us/learn/certifications/exams/dp-100