Developing and Deploying AI/ML Applications on Red Hat OpenShift AI (AI267)

Duration: 4 Days

Course Description

An introduction to developing and deploying AI/ML applications on Red Hat OpenShift AI.

Developing and Deploying AI/ML Applications on Red Hat OpenShift AI (AI267) provides students with the fundamental knowledge about using Red Hat OpenShift for developing and deploying AI/ML applications. This course helps students build core skills for using Red Hat OpenShift AI to train, develop and deploy machine learning models through hands-on experience.

This course is based on Red Hat OpenShift ® 4.14, and Red Hat OpenShift AI 2.8.

Recommended training

- Experience with Git is required
- Experience in Python development is required, or completion of the Python Programming with Red Hat (AD141) course
- Experience in Red Hat OpenShift is required, or completion of the Red Hat OpenShift Developer II: Building and Deploying Cloud-native Applications (DO288) course
- Basic experience in the AI, data science, and machine learning fields is recommended

Course Outline

Introduction to Red Hat OpenShift AI

Identify the main features of Red Hat OpenShift AI, and describe the architecture and components of Red Hat AI.

Data Science Projects

Organize code and configuration by using data science projects, workbenches, and data connections

Jupyter Notebooks

Use Jupyter notebooks to execute and test code interactively

Installing Red Hat OpenShift AI

Installing Red Hat OpenShift AI by using the web console and the CLI, and managing Red Hat OpenShift AI components

Managing Users and Resources

Managing Red Hat OpenShift AI users, and resource allocation for Workbenches

Custom Notebook Images

Creating custom notebook images, and importing a custom notebook through the Red Hat OpenShift AI dashboard

Introduction to Machine Learning

Describe basic machine learning concepts, different types of machine learning, and machine learning workflows

Training Models

Train models by using default and custom workbenches

Enhancing Model Training with RHOAI

Use RHOAI to apply best practices in machine learning and data science

Introduction to Model Serving

Describe the concepts and components required to export, share and serve trained machine learning modelsI

Model Serving in Red Hat OpenShift AI

Serve trained machine learning models with OpenShift AI

Custom Model Servers

Deploy and serve machine learning models by using custom model serving runtimes

Introduction to Data Science Pipelines

Create, run, manage, and troubleshoot data science pipelines

Elyra Pipelines

Creating a Data Science Pipeline with Elyra

KubeFlow Pipelines

Creating a Data Science Pipeline with KubeFlow SDK