



Developing and Deploying AI/ML Applications on
Red Hat OpenShift AI – v2.13



Chapter 1: Introduction to Red Hat OpenShift AI

Section 1.1: Introduction to Red Hat OpenShift AI

Section 1.2: Architecture

Section 1.3: Summary

Chapter 2: Data Science Projects

Section 2.1: Data Science Projects

Section 2.2: Guided Exercise: Data Science Projects

Section 2.3: Workbenches

Section 2.4: Guided Exercise: Workbenches

Section 2.5: Data Connections

Section 2.6: Guided Exercise: Data Connections

Section 2.7: Summary

Chapter 3: Jupyter Notebooks

Section 3.1: Introduction to Jupyter Notebooks

Section 3.2: Guided Exercise: Introduction to Jupyter Notebooks

Section 3.3: Collaboration with Jupyter Notebooks

Section 3.4: Guided Exercise: Collaboration with Jupyter Notebooks

Section 3.5: Summary

Chapter 4: Red Hat OpenShift AI Installation

Section 4.1: Red Hat OpenShift AI Installation



Section 4.2: Guided Exercise: Red Hat OpenShift AI Installation

Section 4.3: Summary

Chapter 5: User and Resource Management

Section 5.1: Users, Projects, and Permissions

Section 5.2: Guided Exercise: Users, Projects, and Permissions

Section 5.3: Managing Resources

Section 5.4: Guided Exercise: Managing Resources

Section 5.5: Summary

Chapter 6: Custom Notebook Images

Section 6.1: Create and Import a Custom Notebook Image

Section 6.2: Guided Exercise: Create a Custom Notebook Image

Section 6.3: Summary

Chapter 7: Introduction to Machine Learning

Section 7.1: Machine Learning Concepts

Section 7.2: Quiz: Machine Learning Concepts

Section 7.3: Machine Learning Workflow

Section 7.4: Summary

Chapter 8: Training Models

Section 8.1: Training Machine Learning Models

Section 8.2: Guided Exercise: Training Machine Learning Models

Section 8.3: Training Models with Custom Workbenches



Section 8.4: Guided Exercise: Training Models with Custom Workbenches

Section 8.5: Summary

Chapter 9: Enhancing Model Training with RHOAI

Section 9.1: Inspecting Workbench Resources

Section 9.2: Guided Exercise: Inspecting Workbench Resources

Section 9.3: Scaling Data Science and Machine Learning

Section 9.4: Guided Exercise: Scaling Data Science and Machine Learning

Section 9.5: Monitoring the Training Process

Section 9.6: Guided Exercise: Monitoring the Training Process

Section 9.7: Summary

Chapter 10: Introduction to Model Serving

Section 10.1: Concepts and Key Aspects of Serving AI Models

Section 10.2: Quiz: Concepts and Key Aspects of Serving AI Models

Section 10.3: Saving Trained Machine Learning Models

Section 10.4: Guided Exercise: Saving Trained Machine Learning Models

Section 10.5: Summary

Chapter 11: Model Serving in Red Hat OpenShift AI

Section 11.1: Using Model Servers to Deploy Models

Section 11.2: Guided Exercise: Using Model Servers to Deploy Models

Section 11.3: Consuming the Model Serving API

Section 11.4: Guided Exercise: Consuming the Model Serving API

Section 11.5: Creating and Using Model Servers



Section 11.6: Guided Exercise: Creating and Using Model Servers

Section 11.7: Summary

Chapter 12: Introduction to Data Science Pipelines

Section 12.1: Concepts of Data Science Pipelines

Section 12.2: Guided Exercise: Concepts of Data Science Pipelines

Section 12.3: Summary

Chapter 13: Working with Pipelines

Section 13.1: Creating Pipelines with the KubeFlow SDK

Section 13.2: Guided Exercise: Creating Pipelines with the KubeFlow SDK

Section 13.3: Creating Pipelines with Elyra

Section 13.4: Guided Exercise: Creating Pipelines with Elyra

Section 13.5: Summary

Chapter 14: Controlling Pipelines and Experiments

Section 14.1: Managing Artifacts and Pipeline Configuration

Section 14.2: Guided Exercise: Managing Artifacts and Pipeline Configuration

Section 14.3: Using Experiments

Section 14.4: Guided Exercise: Using Experiments

Section 14.5: Summary