



| Course Name | Oracle Machine Learning using Python |
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| Course Duration | 2 Days (16 hours) |
| Target | Data Analyst, Data Scientist, ML |
| Audience | Engineer |
| | Oracle Machine Leaming for Python Concepts |
| Course | Machine Learning Models |
| Outcomos | Datastores for Python Objects |
| Outcomes | AutoML |
| | Embedded Python Execution |
| | Working with cx_OracIe |

| Modu | le 01: Introduction to Machine Learning for | |
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| Python | | |
| 1.1 | Introduction to Machine Learning for Python | |
| 1.2 | Why Machine Learning and Use cases | |
| 1.3 | Machine Learning Workflow End Types of ML Algorithms | |
| 1.4 | Introduction to Oracle Machine Learning for Python and Features | |
| 1.5 | OML4Py Features | |
| 1.6 | Oracle Machine Learning for Python Advantages | |
| 1.7 | OML Notebooks | |
| 1.8 | Python Libraries in OMLPy | |
| 1.9 | Practice I-I: Understanding the Lab Environment | |
| 1.11 | Practice 1-2: Exploring the Oracle Cloud Infrastructure Console | |
| 1.12 | Practice 1-3: Provisioning an Oracle Machine | |
| | Learning Instance with Autonomous Database | |
| 1.13 | Practice 1-4: Creatine and Managing the Oracle | |
| | Machine Learning Users | |
| Module 02: OML4Py Transparency Layer | | |
| 2.1 | OML4Py Transparency Layer | |
| 2.2 | Combine Data | |
| 2.3 | Clean and Split Data | |

| 2.4 | Data Exploration | |
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| 2.5 | Practice 2-1: Working with Data Sets Creation and | |
| | Grants | |
| 2.6 | Practice 2-2: Working with Transparency Layer | |
| 27 | Practice 2-3: Data Selection and Manipulation | |
| 2.1 | Using OML4PY | |
| 2.8 | Practice 2-4: Working with Data Transformation | |
| 2.9 | Practice 2-5: Explore the Data Analysis Methods | |
| Modu | le 03: Working with Machine Learning Models | |
| 3.1 | Working with Machine Learning Models | |
| 3.2 | Common in-database algorithm features | |
| 3.3 | Working with Machine Learning Models-I | |
| 3.4 | Working with Machine Learning Models-II | |
| 3.5 | Working with Machine Learning Models-III | |
| 3.6 | Create a model proxy object from an existing | |
| 3.7 | model, Export and Import a Model | |
| | Practice 3-1: Creating and Running an Oracle | |
| 3.8 | Machine Learning Python Notebook for Anomaly | |
| | Detection | |
| | Practice 3-2: Creating and Running a Oracle | |
| 3.9 | Machine Learning Python Notebook for Association | |
| | Rules | |
| 3.11 | Practice 3-3: Creating and Running the Oracle | |
| | Machine Learning Python Notebook for Clustering | |
| Modu | le 04: Data Store for Python Objects | |
| 4.1 | Data Store for Python Objects | |
| 4.2 | Save Objects & Load Saved Objects from a Data | |
| | Store Get Information from a Data Store | |
| 4.3 | Get Information and Delete Data Store Object | |
| 4.4 | Manage access to stored objects | |
| 4 5 | Practice 4-1: Manage Python Objects in the | |
| | Database Using Data Store | |
| 4.6 | Practice 4-2: Manage Data Store Privileges, View | |
| | and Store Contents of Data Store | |
| Module 05: OML4Py Automated Machine Learning | | |
| 5.1 | OML4Py Automated Machine Learning | |
| 5.2 | Machine Learning Workflow Automated by AutoML | |
| 5.3 | Algorithm Selection | |
| 5.4 | reature Selection | |
| 5.5 | Model Tuning | |
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| 5.7 | Practice 5-1: Building Machine Learning Models | |
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| | Using AutoML | |
| Module 06: Embedded Python Execution | | |
| 6.1 | Introduction to Embedded Python Execution | |
| 6.2 | Run a Python Function | |
| 6.3 | Run a Python Function on the Specified Data | |
| 6.4 | Run a Python Function on DataGrouped by Column | |
| | Values | |
| 6.5 | Introduction to Script Repository Overview | |
| 6.6 | Load and Drop Script from Repository | |
| 6.7 | Introduction to REST API | |
| 6.8 | Practice 6-1: Run User-Defined Functions Using | |
| 6.9 | Embedded Python Execution | |
| 6.11 | Practice 6-2: Save and Manage Python Functions in | |
| | Script Repository | |
| 6.12 | Practice 6-3: using the REST API to Invoke User | |
| | Defined Functions | |
| Module 07: Working with cx_Oracle | | |
| 7.1 | Working with cx OracIe | |
| 7.2 | Oracle Architecture | |
| 7.3 | ReadWrite Table Methods | |