

<b>Course Name</b>	<b>Oracle Machine Learning using Python</b>
<b>Course Duration</b>	2 Days (16 hours)
<b>Target Audience</b>	Data Analyst, Data Scientist, ML Engineer
<b>Course Outcomes</b>	Oracle Machine Learning for Python Concepts
	Machine Learning Models
	Datastores for Python Objects
	AutoML
	Embedded Python Execution
	Working with cx Oracle

<b>Module 01: Introduction to Machine Learning for Python</b>	
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: Create and Managing the Oracle Machine Learning Users
<b>Module 02: OML4Py Transparency Layer</b>	
2.1	OML4Py Transparency Layer
2.2	Combine Data
2.3	Clean and Split Data

2.4	Data Exploration
2.5	Practice 2-1: Working with Data Sets Creation and Grants
2.6	Practice 2-2: Working with Transparency Layer
2.7	Practice 2-3: Data Selection and Manipulation Using OML4PY
2.8	Practice 2-4: Working with Data Transformation
2.9	Practice 2-5: Explore the Data Analysis Methods
<b>Module 03: Working with Machine Learning Models</b>	
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
3.8	Practice 3-1: Creating and Running an Oracle Machine Learning Python Notebook for Anomaly Detection
3.9	Practice 3-2: Creating and Running a Oracle Machine Learning Python Notebook for Association Rules
3.11	Practice 3-3: Creating and Running the Oracle Machine Learning Python Notebook for Clustering
<b>Module 04: Data Store for Python Objects</b>	
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	Feature Selection
5.5	Model Tuning
5.6	Model Selection

5.7	Practice 5-1: Building Machine Learning Models Using AutoML
<b>Module 06: Embedded Python Execution</b>	
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
<b>Module 07: Working with cx_Oracle</b>	
7.1	Working with cx_Oracle
7.2	Oracle Architecture
7.3	ReadWrite Table Methods