

WSO2 API Manager 4.7 Developer Fundamentals

OEM: WSO2 • Code: APIM47DF

COURSE DESCRIPTION

WSO2 API Manager Fundamentals is a course aimed at training Software Engineers on the features of the product as well as the underlying concepts and standards. The scope of this course will be limited to using all the features of the product to provide a solution related to API Management without having to extend the product. Training Type: WSO2 product training and hands-on session. Complexity: Beginner/Intermediate.

AUDIENCE PROFILE

- Software Engineers

PREREQUISITES

- Open Standards

Review the standards for:

- OAuth 2.0

COURSE OBJECTIVES

By the end of this course, participants will be able to:

- This section doesn't contain any content.

COURSE OUTLINE

Module 1: Session 1

Introduction to WSO2 API Manager

- Terminology and Background
- Architecture
- Lab: Getting Started with WSO2 API Manager
- Lab: Defining Users and Roles

Getting Started with the API Publisher

- API Creation REST, SOAP, GraphQL, WebSocket, AI/LLM
- Managing APIs
- API Product
- Lab: Creating and Publishing an API through the Publisher
- Lab: Creating and Publishing an API Product through the Publisher
- Lab: Create a WebSocket API

Module 2: Session 2

Working with Developer Portal

- Developer Portal Visibility Gateway environment visibility, B2B API Consumption
- APIs and Applications
- Subscribing and Invoking the API
- Grant Types
- Application Sharing
- Client SDKs
- Community Features
- Lab: Subscribing to APIs
- Lab: Invoking the API
- Lab: Sharing Applications Between Groups

Working with API Controller

- Creating an API via DevFirst Approach
- Migrating APIs, MCP Servers and API Products to Different Environments
- Migrating Applications to Different Environments
- API Controller Functions
- Lab: Creating an API Project using the API Controller
- Lab: Migrating APIs using the API Controller
- Lab: Migrating API Products using the API Controller

Module 3: Session 3

Product Administration

- User Management
- User Stores
- Multitenancy
- Monitoring
- Lab: Working with Tenants
- Lab: Configure LDAP as Secondary User Store
- Lab: Associating Roles with User Store groups

Product Configurations

- Configuration model

Product Security

- Configuring Keystores
- Logins and Passwords
- GDPR for WSO2 API Manager
- Configuring Transport Level Security and Mutual SSL

Module 4: Session 4

API Security

- Authentication(OAUTH2, API Key, Mutual SSL, Basic Auth)
- Authorization(Scopes, XACML)
- Bot detection
- Schema validation
- Encrypting Secure Endpoints
- Working with Secured Endpoints
- Managing Backend Certificates
- Passing JWT to the backend

API Visibility and Access control

- API Publisher Access Control
- Developer Portal Visibility

Rate Limiting Policies

- Introduction to Rate Limiting
- Lab: Working with Rate-Limiting Policies

API Governance

- API Governance

Module 5: Session 5

Working with Gateway

- Introduction to API Gateway
- API Gateway Request flow
- Gateway Environments
- Caching
- Artifact Synchronization
- Gateway Federation And Multi-Gateway Management

AI for API Management

- API Design Assistant to create APIs
- Marketplace Assistant to Discover APIs
- API Chat to Test APIs

- AI Gateway
- Multi Model Routing using AI Policies

Working with Analytics

- Analytics Overview
 - Analytics Dashboards
 - Alerts
 - Reporting capabilities and exporting data
- Lab: Analyze Runtime Statistics

Module 6: Session 6

API Monetization

- Billing model
- Monetization process

Published REST APIs

- Publisher APIs
 - Store APIs
 - Admin APIs
 - Token APIs
- Lab: Using Published APIs

DELIVERY NOTE

- Hardware Requirement: During the lab session, attendees are required to deploy the created samples in multiple middleware products. Participants are required to have a workstation with at least 16GB of memory to run the samples smoothly.
- Software Requirement: If you are using the product installer to install the product, by default, WSO2 APIM is installed with OpenJDK, which allows you to run the product as soon as it is installed. If you are running the server in a VM make sure to install JDK 21 or JDK 25.
- WSO2 Product: WSO2 API Manager 4.7.0 Installation Prerequisites
- WSO2 Product: WSO2 API Manager 4.7.0
- WSO2 Product: Moesif Analytics
- WSO2 Product: API Controller
- Other Products Used: MYSQL
- Other Products Used: JDBC driver for MySQL
- Other Products Used: MySQL Workbench
- Other Products Used: cURL