

Course Agenda

for

WSO2 Identity Server 5.2.0

Developer Fundamentals

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# Executive Summary

WSO2 Identity Server Developer Fundamentals is a course aimed at training software engineers on the features of the product as well as the underlying concepts and standards. The course will limit scope to using all features of the product to provide a solution related to identity management without having to extend the product.

Duration

The course is 2 1/2 days in duration.

Training Type

Classroom

Target Audience

Software Engineers

Complexity

Beginner/Intermediate

# Prerequisites

## WSO2 Platform

Review the WSO2 platform overview webinar found at [1] which contains:

* Who is WSO2?
* Fundamentals: Middleware, Services
* Service Oriented Architecture (SOA) Evolution
* WSO2 Enterprise Middleware and Cloud platform

[1]<http://wso2.com/library/webinars/2015/01/understanding-the-wso2-platform/>

## Open Standards

Review the standards for:

* LDAP [1]
* SAML2 [2]
* OAuth 2.0 [3]
* OpenID Connect [4]
* SCIM [5]
* XACML [6]

[1]<https://tools.ietf.org/rfc/rfc4511.txt>

[2]<http://saml.xml.org/saml-specifications>

[3]<http://oauth.net/2/>

[4] <http://openid.net/connect/>

[5]<http://tools.ietf.org/html/draft-ietf-scim-core-schema-19>

[6]<https://www.oasis-open.org/committees/xacml/>

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# Course Agenda

## Day 1 Session 1

WSO2 Identity Server

* Introduction to the WSO2 Identity Server
* Evolution of *Identity*
* Identity in the Connected World
* Authentication, Provisioning, Authorization, Analytics and Audit
* LAB: Getting started with WSO2 Identity Server
* LAB: Setting up Analytics

User Management in WSO2 IS

* User Management Features
* User Management Architecture
* LAB: Adding a new user
* DEMO: User Dashboard walkthrough
* DEMO: Password Recovery
* LAB: Customizing Automated emails sent to users
* User Information Storage
* LAB: Configure WSO2 Identity Server with ApacheDS

## Day 1 Session 2

User Management in WSO2 Identity Server Continued…

* LAB: Configure a Secondary User Store
* User Claim Management
* Tenant Management
* Admin Services in WSO2 Identity Server
* LAB: Invoking the Admin Services

User Workflow

* User Account Approvals
* LAB: User Account Approval Workflow

Authentication Framework - Web SSO

* Authentication Framework - Service Providers
* Web SSO using SAML 2
* LAB: Single Sign On using WSO2 Identity Server for Authentication

## Day 2 Session 1

Authentication Framework - Identity Federation

* Introduction to Identity Federation
* Authentication Framework - Identity Providers
* OpenID Connect
* LAB: Federated Authentication for a Service using Social Media Integration
* Multi-factor Authentication with FIDO

Identity Bus

* Identity Anti Patterns

User Provisioning

* Introduction to User Provisioning
* Standards used for User Provisioning

## Day 2 Session 2

Provisioning of User in WSO2 Identity Server

* LAB: SCIM inbound provisioning

Authorization

* Introduction to Entitlement
* Fine Grained Access Control using XACML
* LAB: Building a XACML Policy through IS Wizard

## Day 3 Session 1

Securing APIs

* Introduction to OAuth 2.0

Securing APIs Using WSO2 Identity Server

* DEMO: Secure an API with WSO2 API Manager
* DEMO: Saving Access Tokens in Separate Tables

Securing the Identity Server

* Keystores
* LAB: Changing the default Keystore

Audit Logs in WSO2 Identity Server

* DEMO: Viewing the Audit logs

## Day 3 Session 2

Analytics

* Introduction to analytics in WSO2 Identity Server
* DEMO: Viewing analytics for the WSO2 Identity Server

# Infrastructure Requirements

## Classroom Requirement

* Classroom style set up
  + Figure 1 - One central table with a screen at one end
  + Figure 2 - Separate tables for the participants
* Capacity for all participants plus 2 WSO2 team members
* Presentation and AV tools
* Power and Internet connectivity for all ﻿﻿including WSO2 team members
* Notepads, pencils and pens for each attendee
* Available for all training days



## 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 6GB of memory to run the samples smoothly.

## Software Requirement

### Operating System

Windows 2008 Server

Ubuntu 12.04, Ubuntu 14.04, Ubuntu 13.10

### Java

Oracle Java 1.7.x

### WSO2 Products Used

WSO2 Identity Server 5.2.0 [1]

[1]<http://wso2.com/products/identity-server/>

### Other Products Used

Apache Ant [1], Apache Maven [2], SoapUI [3], MYSQL[4], JDBC driver for MySQL[5], CUrl[6], lsof, unzip, git, less, tree, Apache Directory Studio [7]

[1] <http://ant.apache.org/manual/install.html>

[2] <https://maven.apache.org/install.html>

[3] <http://www.soapui.org/>

[4] <https://www.mysql.com/downloads/>

[5] <http://dev.mysql.com/downloads/connector/j/>

[6] <http://curl.haxx.se/download.html>

[7] <https://directory.apache.org/studio/>