PubSub+ Development

EDU-DEV-101

Learn everything you need to know to get started with developing applications to leverage Solace messaging.

Course Overview

This instructor-led 2-day course provides students with the concepts needed to develop applications to leverage Solace messaging. The course begins with a general overview of Solace technology, including messaging concepts and terminology. It provides an overview of the Enterprise APIs and open protocols available to utilize Solace's messaging capabilities.

Course Objectives

A combination of lecture content and lab work helps attendees to achieve the following:

- Understand at a high level the concepts and experience needed to work with Solace messaging
- Develop applications using one of Solace Enterprise Messaging APIs
- Use Solace guaranteed messaging to avoid message loss
- Troubleshoot common application issues by enabling logs and implementing error handling
- Configure applications to operate in a high availability messaging environment
- Structure data in messages to exchange them across different platforms and APIs
- Troubleshoot and monitor health of Solace products

Certification/Badges

- This course does not offer a certification currently.
- PubSub+ Development - ILT Completion Digital Badge

Delivery Method

Instructor-led private on-site or virtual classroom.

Course Duration

Two days of training.

Target Audience

This course is designed for developers.

Prerequisites

Prior knowledge in enterprise integration and messaging is helpful but not required.

Contact

If you have any questions, contact your account executive or email services@solace.com.

Course Modules

Day 1 Agenda	
Module	**Objective**
Introduction & Logistics (INT 1000)	Meet, greet, introductions. Set agenda for the day & Course.
Introduction to Solace (INT 1001)	Understand at a high level the various features and capabilities provided by the Solace product line.
Introduction to Messaging Concepts (INT 1005)	Understand the basic messaging concepts, terminology & standards, and a high-level overview of PubSub+ Event Brokers.
Solace Multi-Tenancy (INT 1020)	Understanding of Solace Multi-Tenancy, administration, data & resource scoping, and roles-based access.
	Hands-On (Create PubSub+ Cloud Service & Manage API Token & Trying Out Your Service)
Topic Structures and Hierarchies (INT 1015)	Understand how applications exchange data using Solace Topics. Covers Topic structure, hierarchies, design examples, and use cases.
Client Management Overview (ADM 1015)	Understand the options available for administrators to manage client authentication and authorization rules.
Solace Messaging (DEV 1000)	Become familiar with the different Solace Enterprise APIs, and the Open Protocols Solace supports.
Connecting to Solace (DEV 1050)	Understand what objects are required to connect to Solace and connect the sample code to your Solace Cloud environment.
	Hands-On (Create New Project & Connecting to your Broker)
Direct Messaging Features (ADM 1055)	Explore direct advanced concepts such as load-balancing consumption and direct message eliding

Day 2 Agenda	
Module	**Objective**
Sending & Receiving Direct Messages (DEV 1150)	Overview of the concepts to send messages to and receive messages from Solace in a direct fashion.
	Hands-On (Direct Messaging)
Guaranteed Messaging (ADM 1100)	Understand how Solace provides persistence to applications that cannot tolerate message loss.
Guaranteed Messaging Patterns (ADM 1105)	Understand the various message exchange patterns that administration can manage & configure for applications that use persistence.
Sending & Receiving Guaranteed Messages (DEV 1155)	Overview of the concepts to send messages to and receive messages from Solace in a guaranteed fashion.
	Hands-On (Guaranteed Messaging & Request/Reply)
Advanced Guaranteed Messaging Concepts (DEV 1260)	Explore and understand API window sizes for sending & receiving messages, transactions, queue browsers, and selectors.
Message Promotion and Demotion (INT 1035)	Administer and implement Guaranteed Messaging patterns using Solace Topics & Queues and understand message promotion & demotion.
Monitoring & Troubleshooting (DEV 1350)	Configuring logging in API for troubleshooting & diagnostics and exploring statistics available from the API for monitoring.
	Hands-On (Monitoring)

Best Practices (DEV 1400)	A high-level overview of API usage best practices, and threading & performance considerations.

Optional Modules	
Module	**Objective**
Messages & Structured Data Types (DEV 1300)	Exploring different parts of a message, various message types and message interoperability between APIs. Structuring application data in messages using Solace's Structured Data Types.
REST (ADM 1400)	Understand how applications can use RESTful APIs to exchange messages on Solace and how to administer REST features.
MQTT (ADM 1405)	Understand the MQTT protocol at a high-level, and how to leverage Solace to do MQTT messaging.
JMS (ADM 1410)	Understand the JMS protocol at a high-level, and how to extend JMS messaging to Solace.
AMQP (ADM 1415)	Understand the AMQP protocol at a high-level, and how the protocol maps to Solace.
PubSub+ Cache (ADM 1060)	Overview of PubSub+ Cache software daemon, its role as a Last Value Cache, and how to deploy and manage it.