HYPERLEDGER
BLOCKCHAIN TECHNOLOGIES FOR BUSINESS
sawtooth

Hyperledger Sawtooth for Application Developers

MODULE 1: INTRODUCTION

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About This Course

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Welcome to Hyperledger Sawtooth for Application Developers.

This course is for a developer who wants to write applications for the Hyperledger Sawtooth enterprise blockchain platform. It starts with the basics of blockchain technology and the concepts of permissioned networks, then describes the important features of Sawtooth.

This course includes an example distributed application, Sawtooth Simple Supply, that is based on a simplified supply-chain example. This application includes a web-app front end, a transaction processor (the equivalent of a smart contract) for the blockchain business logic, and a custom REST API for communication. Learning how to code this sample application will teach you about important Sawtooth concepts and will help you understand how to create your own enterprise-level Sawtooth application.

This course requires programming experience with Python and JavaScript, or similar languages, as well as general familiarity with protocol buffers (protobufs) and the ZeroMQ messaging library.

Learning Objectives

In this course, you will learn:

- Basic blockchain concepts: Blockchain structure and process flow, transactions, blocks, hashes and signing, permissions, and consensus
- Hyperledger Sawtooth, an enterprise blockchain solution for building, deploying, and running distributed ledgers that provides a flexible and modular platform for distributed applications
- Principles of application design for the Sawtooth platform
- Creating a full-featured Sawtooth application using the included Sawtooth Simple Supply application
- Running and troubleshooting an application

Requirements

This course is for an experienced application developer who is familiar with:

- Docker
- Python 3
- JavaScript
- Protocol buffers (protobufs)
- ZeroMQ distributed messaging (also called 0MQ or ZMQ)

You will need the current version of Docker Engine and Docker Compose to use this course and build the example application.