title: Ethereum for Java developers description: Learn how to develop for Ethereum using Java-based projects and tooling lang: en incomplete: true

Learn how to develop for Ethereum using Java-based projects and tooling

Use Ethereum to create decentralized applications (or "dapps") that utilize the benefits of cryptocurrency and blockchain technology. These dapps can be trustworthy, meaning that once they are deployed to Ethereum, they will always run as programmed. They can control digital assets in order to create new kinds of financial applications. They can be decentralized, meaning that no single entity or person controls them and are nearly impossible to censor.

# Getting started with smart contracts and the Solidity language {#getting-started-with-smart-contracts-and-solidity}

**Take your first steps to integrating Java with Ethereum**

Need a more basic primer first? Check out [ethereum.org/learn](ethereum.org/learn) or [ethereum.org/developers.](ethereum.org/developers.)

- [Blockchain Explained](Blockchain Explained)
- [Understanding Smart Contracts](Understanding Smart Contracts)
- [Write your First Smart Contract](Write your First Smart Contract)
- [Learn How to Compile and Deploy Solidity](Learn How to Compile and Deploy Solidity)

# Working with Ethereum clients {#working-with-ethereum-clients}

Learn how to use [Web3J](Web3J) and Hyperledger Besu, two leading Java Ethereum Clients

- [Connecting to an Ethereum client with Java, Eclipse, and Web3J](Connecting to an Ethereum client with Java, Eclipse, and Web3J)
- [Manage an Ethereum account with Java and Web3j](Manage an Ethereum account with Java and Web3j)
- [Generate a Java Wrapper from your Smart Contract](Generate a Java Wrapper from your Smart Contract)
- [Interacting with an Ethereum Smart Contract](Interacting with an Ethereum Smart Contract)
- [Listening for Ethereum Smart Contract Events](Listening for Ethereum Smart Contract Events)
- [Using Besu (Pantheon), the Java Ethereum Client with Linux](Using Besu (Pantheon), the Java Ethereum Client with Linux)
- [Running a Hyperledger Besu (Pantheon) Node in Java Integration Tests](Running a Hyperledger Besu (Pantheon) Node in Java Integration Tests)
- [Web3j Cheat Sheet](Web3j Cheat Sheet)

# Intermediate articles {#intermediate-articles}

- [Managing storage in a Java application with IPFS](Managing storage in a Java application with IPFS)
- [Manage ERC20 tokens in Java with Web3j](Manage ERC20 tokens in Java with Web3j)
- [Web3j Transaction Managers](Web3j Transaction Managers)

# Advanced use patterns {#advanced-use-patterns}

- [Using Eventeum to build a Java smart contract data cache](Using Eventeum to build a Java smart contract data cache)

# Java projects and tools {#java-projects-and-tools}

- [Hyperledger Besu (Pantheon) (Ethereum Client)](Hyperledger Besu (Pantheon) (Ethereum Client))
- [Web3J (Library for Interacting with Ethereum Clients)](Web3J (Library for Interacting with Ethereum Clients))
- [Eventeum (Event Listener)](Eventeum (Event Listener))
- [Mahuta (IPFS Dev Tools)](Mahuta (IPFS Dev Tools))

Looking for more resources? Check out [ethereum.org/developers.](ethereum.org/developers.)

# Java community contributors {#java-community-contributors}

- [IO Builders](#)
- [Kauri](#)
- [Besu HL chat](#)

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