Chapter 4
Ethereum Development Tools

Building an Ethereum Blockchain App
with Michael Solomon

Episode 4.01
Your Ethereum Development Toolbox

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Why so Many Tools?

- Work through SDLC
  - Develop code
  - Deploy and run locally
  - Deploy on public test blockchain
  - Deploy to mainnet
- EVM runtime environment
  - Different platforms
  - Different languages

Open Source

- Many contributors
  - Make software free and better
  - Lots of great ideas
  - Lots of problem solvers

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Episode 4.02
Installing Geth Lab (CLI Blockchain Client)

Building an Ethereum Blockchain App
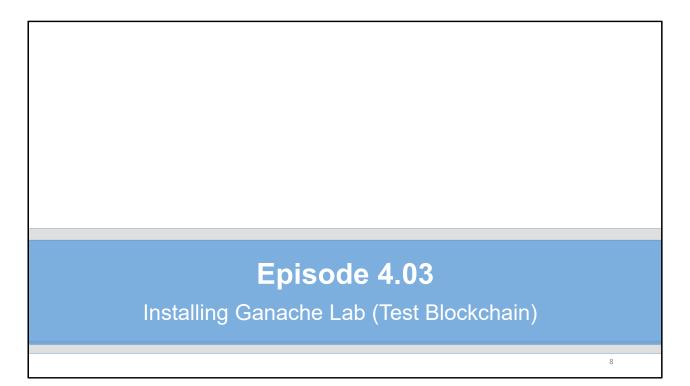with Michael Solomon

Geth (Go Ethereum)

- Go language
- Full Ethereum node
  - Access complete blockchain
  - Run local EVM
- Mine ETH
- Create transactions and smart contracts
- Examine existing blocks

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Running Geth

- Have to run from command-line interface
    - In Windows: command prompt or PowerShell
    - In Mac/Linux: terminal
- cd = change directory
- Can be launched in light or full mode

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Episode 4.03
Installing Ganache Lab (Test Blockchain)

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Test Blockchain

- Testing environment
  - Not live
  - Test out code
- Ganache
  - Test blockchain
  - Deploy contracts
  - Develop applications
  - Run tests

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Episode 4.04

Installing Truffle Lab (Development Environment and Testing Framework)

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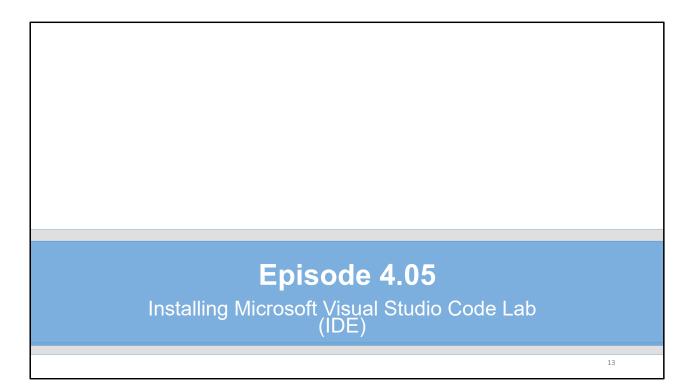with Michael Solomon

Ethereum Testing Environment

- Test blockchain
- Need framework on top of test blockchain
  - Move, compile, and deploy smart contract code

Testing Environment

- Truffle
  - Works well with Ganache
  - Truffle Suite

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Episode 4.05
Installing Microsoft Visual Studio Code Lab (IDE)

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Integrated Development Environment (IDE)

- Super text editor
- Save time
- Write better code
  - Automatic code completion
  - Syntax help
- Microsoft Visual Studio Code
  - Free
  - Available for most operating systems (not just Windows)

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