Ethereum workshop notes for students

# Requirements for students:

Note that the software requirements for this course are minimal. The students only need a web browser and internet access and be able to access the URL [https://remix.ethereum.org](https://remix.ethereum.org/). This is sufficient for running the software presented in the course material as well as a minimum requirement for creating the workshop project.

However, optional software can be used for a more full-featured development environment as the student requires. Please note that it is unlikely that you will be able to access this software from inside the firm.

Following is a suggested list of software and where to find it.

1. Metamask. Metamask is a plugin for Chrome that allows the user to directly access the Ethereum main network as well as the test networks so that students can directly test their smart contracts with ether. Metamask is available at: https://metmask.io

2. Node.js and npm. For the remainder of this list, node.js and the node package manager will be required to install and run the applications.

3. Remix. Although we will be using the web browser to run Remix, it is also available as a desktop application that will connect to your localhost browser via TCP port 8080 by default. Remix has a built-in IDE which is fully functional and works directly with Ethereum and Solidity.

4. Web3.js. Web3.js is a Javascript library that allows front end applications to instantiate smart contracts, call smart contract functions and receive events from them. Install this by running npm install web3

5. Truffle Development Suite. The truffle development suite consists of three components. Truffle can be found at: [https://trufflesuite.com](https://trufflesuite.com/).

The three components are:

Truffle. A command line based development environment that makes creation and

implementation of smart contracts simple.

Ganache. A simple tool that allows the developer to create their own personal

ethereum blockchain. Ganache also has a graphical interface to allow

the user to manage the local blockchain.

Drizzle. A series of javascript libraries for the web3.js front end. Drizzle has

substantial support for the React.js framework.

6. Atom. Atom is a graphical editor that supports the Solidity language. You can find Atom at: [https://atom.io](https://atom.io/).