Pre- install programs:

Ethereum Mist Wallet:

https://ethereum.org/

Install mist wallet browser…will take you to the right install based on OS

You must start and sync

Then connect to test network rinkeby

Select "start" mining

Visual Studio Code:

https://code.visualstudio.com/

May use sublime or other editors

npm/ Node Package manager:

https://github.com/npm/cli

https://docs.npmjs.com/cli/install

https://docs.npmjs.com/cli/install

Node:

https://nodejs.org/en/download/

Install latest node version for baseline

- **`npm install`** (in package directory, no arguments):

  Install the dependencies in the local node_modules folder.

  In global mode (ie, with **`-g`** or **`--global`** appended to the command), it installs the current package context (ie, the current working directory) as a global package.

  By default, **`npm install`** will install all modules listed as dependencies in **package.json** .

  With the **`--production`** flag (or when the **`NODE_ENV`** environment variable is set to **`production`**), npm will not install modules listed in **`devDependencies`** .

  > NOTE: The **`--production`** flag has no particular meaning when adding a dependency to a project.

Chrome:

Most laptops will have it…if not..get it because metamask works
Best on chrome

Metamask:

metamask.io

Metamask is a chrome extension

React:

https://reactjs.org/

Truffle:

To write your custom contracts, import ours and extend them through inheritance.

```solidity
pragma solidity ^0.4.24;

import 'openzeppelin-solidity/contracts/token/ERC721/ERC721Full.sol';
import 'openzeppelin-solidity/contracts/token/ERC721/ERC721Mintable.sol';

contract MyNFT is ERC721Full, ERC721Mintable {
  constructor() ERC721Full("MyNFT", "MNFT") public {
  }
}
```

https://truffleframework.com/

npm install -g truffle

Ganache:
https://truffleframework.com/ganache

https://github.com/trufflesuite/ganache

Requirements:

- npm v5.3.0
- node v8.3.0

Demo:
1. Clone the repo from link above
2. Run npm install

3. Run npm start

Ganache-cli:

Installation

ganache-cli is written in Javascript and distributed as a Node package via npm. Make sure you have Node.js (>= v6.11.5) installed.

npm install -g ganache-cli

Open Zeppelin:
https://openzeppelin.org/api/docs/open-zeppelin.html

https://openzeppelin.org/

https://github.com/OpenZeppelin/openzeppelin-solidity

Run inside project directory

npm install openzeppelin-solidity

Other packages:

Web3