**Blockchain VPP POC Quick Start Guide**

**Purpose**: Build a Blockchain based application to handle transmitting PHI across various actors in a typical healthcare scenario.

**Knowledge**

* Be able to explain what a Blockchain is and what it is used for.
* Be able to explain the Ethereum framework and what smart contracts are.
* Have a basic understanding of how the below software (solidity, JavaScript, etc.) work together.
* Have a basic understanding of the steps of typical healthcare scenarios (e.g. making an appointment as a patient)
* Have a basic understanding of the U.S healthcare industry in regards to the relationships being payers, providers, etc.

**Infrastructure**

We have two identical repositories for this project, one in GItHub and another in Team Foundation Server. They house all the existing work items (documents, code, etc.) you can use to see how far we are right now.

The GitHub link is below:

<https://github.com/DonNull0ck/SDLC_Blockchain_Demo>

You will need a GitHub account to access this repository. Reach out to Collin Donaldson ([cdonaldson@sdlcparnters.com](mailto:cdonaldson@sdlcparnters.com)) to be added as a contributor to this project.

This is the login for TFS:

http://sdlcalm01.sdlcpartners.com:8080/tfs/Delivery/VPP

You can login in using your SDLC email and password. If you are not prompted for a username and password or receive an error, contact IT, in particular John Vorchak. Likewise if you do not have access to the TFS directory (VPP 🡪 Blockchain POC) reach out to John or someone else in IT about access.

The TFS also has a task list breakdown for specific components of the project.

**Stack:**

Disclaimer: Some elements of the stack are evolving and may change from the time of writing. Note that elements not mentioned below, such as what editor/IDE you use to write JavaScript, are up to individual preference.

Front End: HTML, CSS (derived from UI software), JavaScript (React, Web3, Drizzle).

The Blockchain itself: Ganache

Backend: Solidity

Build Automation: Truffle

Other: Remix IDE, Swarm, MetaMask, EtherWallet

Note: May add diagram showing how this software relates here

**Helpful Links:**

The ethereum project homepage:

<https://ethereum.org/>

The online IDE for Solidity

<http://remix.ethereum.org/#optimize=false&version=soljson-v0.5.2+commit.1df8f40c.js>

The documentation for the Solidity language:

<https://solidity.readthedocs.io/en/v0.5.2/>

The documentation for the Web 3 JS framework:

<https://web3js.readthedocs.io/en/1.0/web3-eth.html>

Ethereum wallet plugin Metamask:

<https://metamask.io/>

The download for Ganache to visualize and deploy the Blockchain:

<https://truffleframework.com/ganache>

A link to download GIt Bash (windows) for installing things like Web3.JS :

<https://git-scm.com/downloads>

The link to download Web.JS:

<https://github.com/ethereum/web3.js/#installation>

Link to install and compile solidity on Windows using the solc compiler:

<https://www.codeooze.com/blockchain/solc-hello-world/>

**Roles:**

Disclaimer: These roles are examples not formal titles, their objective is to help you understand this project’s work using terms familiar to employees who have worked on client assignments or other such work experience. There is a strong possibility you will wear multiple hats working on this project.

Front End Developer: Write HTML/JavaScript to build the front end (e.g. web pages).

Back End Developer: Write Solidity smart contracts (e.g. transmit PHI).

QA Analyst: Supervise testing (unit, integration, etc.).

Business Analyst: Create and maintain documentation (e.g. use case) .

Systems Analyst: Act as a bridge between the aforementioned roles e.g. assists front/back end integration.