**L3 Capstone Project for Blockchain (Ethereum)**

Create a DApp using Ethereum to maintain customers data. User should be presented with a Web UI showing the list of existing customers. In this list, user should be able to filter the customers by SSN or by first name.

User should have an option to create new customer, choosing which user should be presented with an UI to enter to customer data and a save/submit option to save it to the blockchain.

Customer attributes are:

1. SSN (numeric – 9 digits)
2. First Name (text – 50 chars)
3. Last Name (text – 50 chars)
4. State (text – 50 chars)
5. City (text – 50 chars)
6. Street Address (text – 200 chars)
7. DOB (date)

Following is expected in the implemented solution:

1. Smart contracts
2. A REST Service (NodeJS/Java) – Should have REST endpoints to insert, update, search and list customer data
3. A UI Application (Any UI framework – Angular, React, …) – User should be allowed to insert, update, search and list customer data.
4. For Ethereum node one can use ganache, any test Ethereum network, infura, quorum, any Ethereum implementation
5. A high-level architecture document/diagram depicting the implemented solution
6. Follow all the best coding practices

**Note to candidates building the solution:**

1. Basic / bare bone UI App developed is fine. You will not be evaluated for proficiency in UI development skills.
2. Use case is kept at high level. Make appropriate assumptions. Keep it simple. The evaluation of the solution will focus on clarity of understanding Blockchain concepts & Blockchain platform and hands on knowledge of the developer. Solution need not be complex or fancy.

**Development Environment**

Below are some possible options to setup the development environment and complete this assignment.

1. Wipro or personal Laptop
2. A VM instance in google cloud (can use trial account)
3. An EC2 instance in AWS (can use trial account)
4. Github for code repository