#### A PROJECT PROPOSAL ON

# COMPARISON OF BLOCKCHAIN PLATFORMS: ETHEREUM, HYPERLEDGER FABRIC AND CORDA

#### ADVANCED COMPUTER NETWORK SECURITY

## COMS 4507/7507

#### **DONE BY**

#### **Team Members**

Saisrikar Paruchuri 44751575

Michelle Forrester 42658166

Michael Li Connor 41773080

**Anant Tuli** 44411600

COURSE COORDINATOR

MARIUS PORTMANN



## **Project Goal**

The goal of this project is to compare the most notable differences of three blockchain platforms (Ethereum, Hyperledger Fabric, and Corda). Performing an in-depth comparison of these distributed ledger technologies (DLTs) can aid decision makers to choose a suitable platform for their specific use case.

## **Project Scope**

This project analyses and compares important differences among Ethereum <sup>[9]</sup>, Hyperledger Fabric <sup>[1]</sup> and Corda <sup>[2]</sup> platforms. The motivation behind the inception of each of the blockchain platforms will also be detailed in the report to accurately describe the need for was created since the reason for the inception of new DTLs as many key differences in their features are the reason why different blockchain platforms had to be created rather than using a pre-existing solution and detailing each of the blockchain platform (Ethereum, Fabric, Corda).

#### References (Relevant Related Work)

- 1. <a href="https://docs.google.com/document/d/1Z4M\_qwILLRehPbVRUsJ3OF8Iir-gqS-ZYe7W-L">https://docs.google.com/document/d/1Z4M\_qwILLRehPbVRUsJ3OF8Iir-gqS-ZYe7W-L</a>
  <a href="mailto:E9gnE/pub">E9gnE/pub</a>
- 2. <a href="https://docs.corda.net/">https://docs.corda.net/</a> <a href="static/corda-introductory-whitepaper.pdf">static/corda-introductory-whitepaper.pdf</a>
- 3. <a href="https://www.ethereum.org/">https://www.ethereum.org/</a>
- 4. https://docs.corda.net/
- 5. https://www.corda.net/
- 6. <a href="https://github.com/corda/corda">https://github.com/corda/corda</a>
- 7. <a href="https://www.hyperledger.org/projects/fabric">https://www.hyperledger.org/projects/fabric</a>
- 8. <a href="https://github.com/hyperledger/fabric">https://github.com/hyperledger/fabric</a>
- 9. <a href="http://www.cryptopapers.net/papers/ethereum-yellowpaper.pdf">http://www.cryptopapers.net/papers/ethereum-yellowpaper.pdf</a>

## Proposed Methodology/Approach

The project involves reviewing a number of research papers, official websites and git repositories on each of the blockchain platforms (Ethereum, Fabric and Corda). After reviewing the research on above blockchain platforms, the following will be reported in detail:

- 1. The key features of each blockchain platform (Ethereum, Fabric and Corda) will be identified and reported.
- 2. The motivation behind the inception of each of the blockchain platform will also be detailed in the report as many key differences in features are the reason why different blockchain platforms are introduced rather than using a pre-existing solutions.
- 3. The advantages and limitations of each blockchain platform in mutual aspects such as scalability, security, smart contracts and more.

The report will contain a separate section for each of the blockchain platform detailing them separately and then finally bringing all of the relevant information together in the form of a comprehensive comparison table as the result section followed with discussion and conclusion to the report.

## Plan for the Project

The project is planned to be carried out according to the schedule outlined in the Gantt Chart below:

