

SYNOPSIS OF THE PROJECT

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Shared folder/git repository details	https://github.com/Ann-Sarah
Project Title	Decentralized Chat System

Description of Project:

Decentralized application make use of peer-to-peer networks, this ensures that no network failure can occur due to central node failure. Blockchain serves as an immutable ledger(any records that have the ability to remain unchanged) which allows messaging to take place in a decentralized manner. A decentralized application for communication and resource sharing is need in today's world, where keeping data on a centralized server can be risky and costly experience. With the help of various consensus, we can implement different ways to share resources and communicate. Together with Blockchain and Decentralized Applications, we can create a secure and reliable messaging application that overcomes the drawbacks of traditional messaging applications.

This project makes the use of decentralized Application approach (dApps). In our application all the user data is stored on a block which is connected to other blocks forming a chain. As the name suggests, a decentralized application does not have a centralized server. It is basically a peer-to-peer network. Also the data that is stored in block is almost impossible to view as a very secure encryption and hashing functions (256 bits) are used, if a hacker tries to make changes to the information in block then, he/she will have to make changes to all the copies of that block on whole blockchain network and that can be quite impossible. Though block are on all nodes, they cannot access the information in it, only the owner of the information can access it.

- Ethereum is a decentralized blockchain platform that establishes a peer-to-peer network that securely executes and verifies application code, called smart contracts. Smart contracts allow participants to transact with each other without a trusted central authority.
- Ganache is used for setting up a personal Ethereum Blockchain for testing your Solidity contracts.
- MetaMask is a software cryptocurrency wallet used to interact with the Ethereum blockchain. It allows users to access their Ethereum wallet through a browser extension or mobile app, which can then be used to interact with decentralized applications.

Front end and Backend Tools	Front end: html, css, javascript
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Date of Submission: 19/04/2022