CS607: Contemporary Computing Platforms
Project 3

Submitted by:

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Requirements:

Flask (Tested with version: 1.1.2) $ pip3 install flask

Requests (Tested with version 2.22.0) $ pip3 install requests

How to run the program:

◆ Execute the 'run_app.py' by the following command

$ python3 run_app.py

◆ Either open the link from the terminal or copy the below address on your browser

http://127.0.0.1:5000/

Program Overview:

➔ You need to first add PoS terminals to your LAN network by giving the name and selecting the type of the PoS and then clicking on the 'add PoS' button. Each PoS will be an independent node of our network and will have its own ledger. Users will be interacting with these terminals with their smart cards

➔ Available PoS will be shown on the home page and you may choose to interact with them. There are two types of PoS terminals- Cash Card and Retail.

➔ With the Cash Card PoS terminal, you can either purchase a new card or recharge the old card.

➔ With the Retail PoS terminal, you can either check your card balance or purchase an item.

➔ On the PoS interaction page, you will have the option to mine the blocks, get the blockchain, and to get pending transactions that are not yet added to the main blockchain. Also, there will be smart card options as per the type of PoS terminal.

➔ Note that we need to manually mine the blockchain regularly to add pending transactions to the chain. Mining after every 'new card purchase' transaction is recommended.