

Setup

- Install anaconda : <https://www.anaconda.com/download/#window>
- Stellar Python SDK: <https://stellar-base.readthedocs.io/en/latest/>

Hashing

- About SHA-256 and link to JS implementation on GitHub
<https://www.movable-type.co.uk/scripts/sha256.html>
- More in depth description of SHA-256 and two other hashing functions
<http://www.iwar.org.uk/comsec/resources/cipher/sha256-384-512.pdf>
- Maybe we should consider a Proof of Stake algorithm for consensus
<https://blockgeeks.com/guides/proof-of-work-vs-proof-of-stake/>
<https://www.investopedia.com/terms/p/proof-stake-pos.asp>
- A good break down of hashes, blocks, PoW, and PoS
<https://medium.com/@robertgreenfieldiv/explaining-proof-of-stake-f1eae6feb26f>

Server Side

- Run python server side language -
https://developer.mozilla.org/en-US/docs/Learn/Common_questions/set_up_a_local_testing_server
- The console could be done through a server using Django, which would allow us to run python code in an https address to simulate our blockchain. Could also allow for a webapp kind of feel for the console.

A blockchain implementation was chosen over a graph implementation along with a proof of stake consensus algorithm. In order to keep track of user transactions a master dictionary will be used to check validity of user purchases. The dictionary will be used in conjunction with the proof of stake algorithm. To handle coin distribution, freezing, and the burning of coins, a central bank is going to be used to keep track of total supply, price of coin, and fraudulent activity. It seems that a bulk of coins will be created to start and will not be created again. Instead coins will be frozen and then reclaimed whenever new coins are needed for the market. Networking and working with a console wallet will be handled using Stellar Lumen's API for python.

The Stellar-Base API will provide many useful functions for our implementation and will be a resource that will be useful for all team members. Stellar was chosen because of their focus on quick transactions in the form of remittances.