FLOW CHART

Initialization of class Election

- Blockchain() initialized.

Blockchain.create_genesis_block()

- this method will be called in Blockchain()
- it will create genesis Block.

register_to_vote()

- it will create instance of voter
- assigned private-public key pair.
- hashed_id and public key pair will be stored in Election Data.

Blockchain.cast_vote()

- it will create instance of Vote class.
- Vote.encrypte() - voteData will be encrypt using Authority Public Key.
- Vote.sign() - vote will be sign by private key of voter.

Vote.verify_vote()

- verfying digital signature.
- checking uniqueness of vote from the previous votes.
- verified vote will be added to mempool of blockchain.

Blockchain.create_block()

- Block will be created if sufficient Vote in mempool.
- Block will have previous hash, votes, nonce,timestamp,height
- Blockchain.Proof_of_Work() - Block will me mined to get required Hash with given difficulty.

Blockchain.add_block()

- Block.verify() - it will check the proof of work of the block and previos hash.
- if valid, Block will be added to Blockchain, else will be discarded.

Block Added on Blockchain.