In [1]:

```python
import hashlib
```

In [5]:

```python
def hashGenrator(data):
    result = hashlib.sha256(data.encode())
    return result.hexdigest()
class Block:
    def __init__ (self,data,hash,prev_hash):
        self.data=data
        self.hash=hash
        self.prev_hash=prev_hash

class Blockchain:
    def __init__(self):
        hashLast = hashGenrator('gen_last')
        hashStart = hashGenrator('gen_hash')

        genesis= Block('gen-data',hashStart,hashLast)
        self.chain=[genesis]

    def add_block(self,data):
        prev_hash=self.chain[-1].hash
        hash= hashGenrator(data+prev_hash)
        block= Block(data,hash,prev_hash)
        self.chain.append(block)

bc=Blockchain()
bc.add_block('1')
bc.add_block('2')
bc.add_block('3')

for blocks in bc.chain:
    print(blocks.__dict__)
```

```
{'data': 'gen-data', 'hash': '0a87388e67f16d830a9a3323dad0fdfa4c4044a6a6389c
ab1a0a37b651a5717b', 'prev_hash': 'bd6fecc16d509c74d23b04f00f936705e3eaa907b
04b78872044607665018477'}
{'data': '1', 'hash': 'e3e6c97161f3deaf01599fda60ba85593b07f70328bf228473d1d
408f7400241', 'prev_hash': '0a87388e67f16d830a9a3323dad0fdfa4c4044a6a6389cab
1a0a37b651a5717b'}
{'data': '2', 'hash': '47e8645e3c14bd4034a498aa88ea630bc0793375207bf90ca4697
92a5d9484e1', 'prev_hash': 'e3e6c97161f3deaf01599fda60ba85593b07f70328bf2284
73d1d408f7400241'}
{'data': '3', 'hash': '82084603decb1a14a8819dacaa86197659f1e150c4a50186e6804
3004b5a3c06', 'prev_hash': '47e8645e3c14bd4034a498aa88ea630bc0793375207bf90c
a469792a5d9484e1'}
```

In [ ]: