

# Day 3 Assignment

## Blockchain Essentials

### Answer 1:

#### SHA256 Hash

Data:	<div>Blockchain is amazing.</div>
Hash:	<div>8c14be87776f4e306871fb7adf4065b0996c588210e87018f7b30fc8c59a22e4</div>

#### Block

Block:	# 1
Nonce:	31152
Data:	<div>This is my first block</div>
Hash:	<div>00008fb6a690b8e4e60c32e5056a0897059a89211b53c2fbdefaa0d2aec8acf9</div>
<div>Mine</div>	

#### Blockchain

Block:	# 1
Nonce:	6776
Data:	<div>Learning blockchain is amazing.</div>
Prev:	<div>00</div>
Hash:	<div>0000d49809a92f5c0b48874210ca6d900bfe0cd441432ef1005</div>
<div>Mine</div>	

Block:	# 2
Nonce:	32525
Data:	<div>LetsUpgrade makes it more amazing.</div>
Prev:	<div>0000d49809a92f5c0b48874210ca6d900bfe0cd441432ef1005</div>
Hash:	<div>000028519c5182e7b6147db06447996d0b01528c0998a5a6ede</div>
<div>Mine</div>	

Block:	# 3
Nonce:	66012
Data:	<div>Sir Sai makes It easy to learn :)</div>
Prev:	<div>000028519c5182e7b6147db06447996d</div>
Hash:	<div>000021d32c72690a08c49a02c42bb8e6</div>
<div>Mine</div>	

# Distributed Blockchain

Peer A

Block: # 1

Nonce: 19155

Data: block 1 of peer A

Prev: 00

Hash: 0000a606b1e6fa90ac0a11cd400152bdbc2b1b5b4ae8dc7133

Mine

Block: # 2

Nonce: 93615

Data: Block 2 of peer A

Prev: 0000a606b1e6fa90ac0a11cd400152bdbc2b1b5b4ae8dc7133

Hash: 000035b9c5762210a48c9727c53c93040b04e49374aa60de79

Mine

Block: # 3

Nonce: 66811

Data: Block 3 of peer A

Prev: 000035b9c5762210a48c9727c53c93040b04e49374aa60de79

Hash: 0000700acbb1bdae604225c7c076bb

Mine

# Tokens

Peer A

Block: # 1

Nonce: 7711

Tx: \$ 25.00 From: Darcy -> Bingley  
\$ 4.27 From: Elizabeth -> Jane  
\$ 19.22 From: Wickham -> Lydia  
\$ 106.44 From: Lady Cat -> Collins  
\$ 6.42 From: anil -> Elizabeth

Prev: 00

Hash: 0000dc8dd72c489a120ee1a70b775ea13bf9e5c505b3bb3de1

Mine

Block: # 2

Nonce: 51976

Tx: \$ 97.67 From: Ripley -> Lambert  
\$ 48.61 From: Kane -> Ash  
\$ 6.15 From: Parker -> Dallas  
\$ 10.44 From: Hicks -> Newt  
\$ 88.32 From: Bishop -> Burke  
\$ 45.00 From: Hudson -> Gorman  
\$ 92.00 From: Vasquez -> Apone

Prev: 0000dc8dd72c489a120ee1a70b775ea13bf9e5c505b3bb3de1

Hash: 000063be9cb2abfe6a011ced77ec24c8fdbc8bfc64c5a76bec

Mine

Block: # 3

Nonce: 70422

Tx: \$ 10.00 From: Emily  
\$ 5.00 From: Madison  
\$ 20.00 From: Lucas

Prev: 000063be9cb2abfe6a011ced77ec24c8fdbc8bfc64c5a76bec

Hash: 00005fe976671a273cc46a4c71b1e75

Mine

# Coinbase Transactions

Peer A

Block: # 1

Nonce: 19767

Coinbase: \$ 100.00 -> Anil

Tx:

Prev: 00

Hash: 000037580892f92ffd1a3a49d58524288ffa8dec88ce856e1

Mine

Block: # 2

Nonce: 22958

Coinbase: \$ 100.00 -> Anil

Tx: \$ 10.00 From: Anders -> Sophia  
\$ 20.00 From: Anders -> Lucas  
\$ 15.00 From: Anders -> Emily  
\$ 15.00 From: Anders -> Madison

Prev: 000037580892f92ffd1a3a49d58524288ffa8dec88ce856e1

Hash: 0000d07ebb1a752d5c540aab1f68cd4388a81f454c584c4d7a

Mine

Block: # 3

Nonce: 146

Coinbase: \$ 100.00 -> Anil

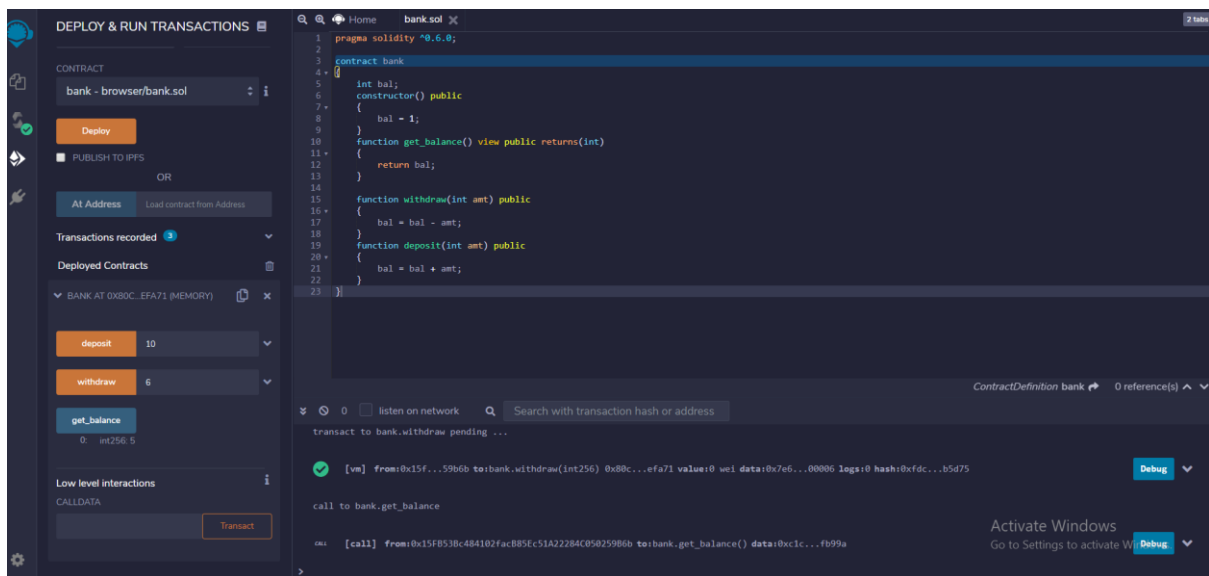
Tx: \$ 10.00 From: Emily  
\$ 5.00 From: Madison  
\$ 20.00 From: Lucas

Prev: 0000d07ebb1a752d5c540aab1f68cd4388a81f454c584c4d7a

Hash: 15352b0e291dde6e2b18556a7cbd0b0e

Mine

## Answer 2:



### Smart contract code:

```
pragma solidity ^0.6.0;
```

```
contract bank
```

```
{
```

```
    int bal;
```

```
    constructor() public
```

```
    {
```

```
        bal = 1;
```

```
    }
```

```
    function get_balance() view public returns(int)
```

```
    {
```

```
        return bal;
```

```
    }
```

```
    function withdraw(int amt) public
```

```
    {
```

```
        bal = bal - amt;
```

```
    }
```

```
function deposit(int amt) public
{
    bal = bal + amt;
}
}
```