

File: server.py

```
import socket
import hashlib
import time
import math

s = socket.socket()

s.bind(("localhost", 8888))

s.listen(5)

while True:
    c, addr = s.accept()
    print "Connected to client ", addr

    message = raw_input("Enter message: ")
    hashObject = hashlib.sha1(message)
    hexDig = hashObject.hexdigest()
    hashS = str(hexDig)
    c.send(message+"\t"+hashS)

    c.close()
```

File: client.py

```
import socket
import hashlib

s = socket.socket()

s.connect(("localhost", 8888))

receivedString = s.recv(1024)
message = receivedString.split("\t")[:-1]
message = "\t".join([word for word in message])

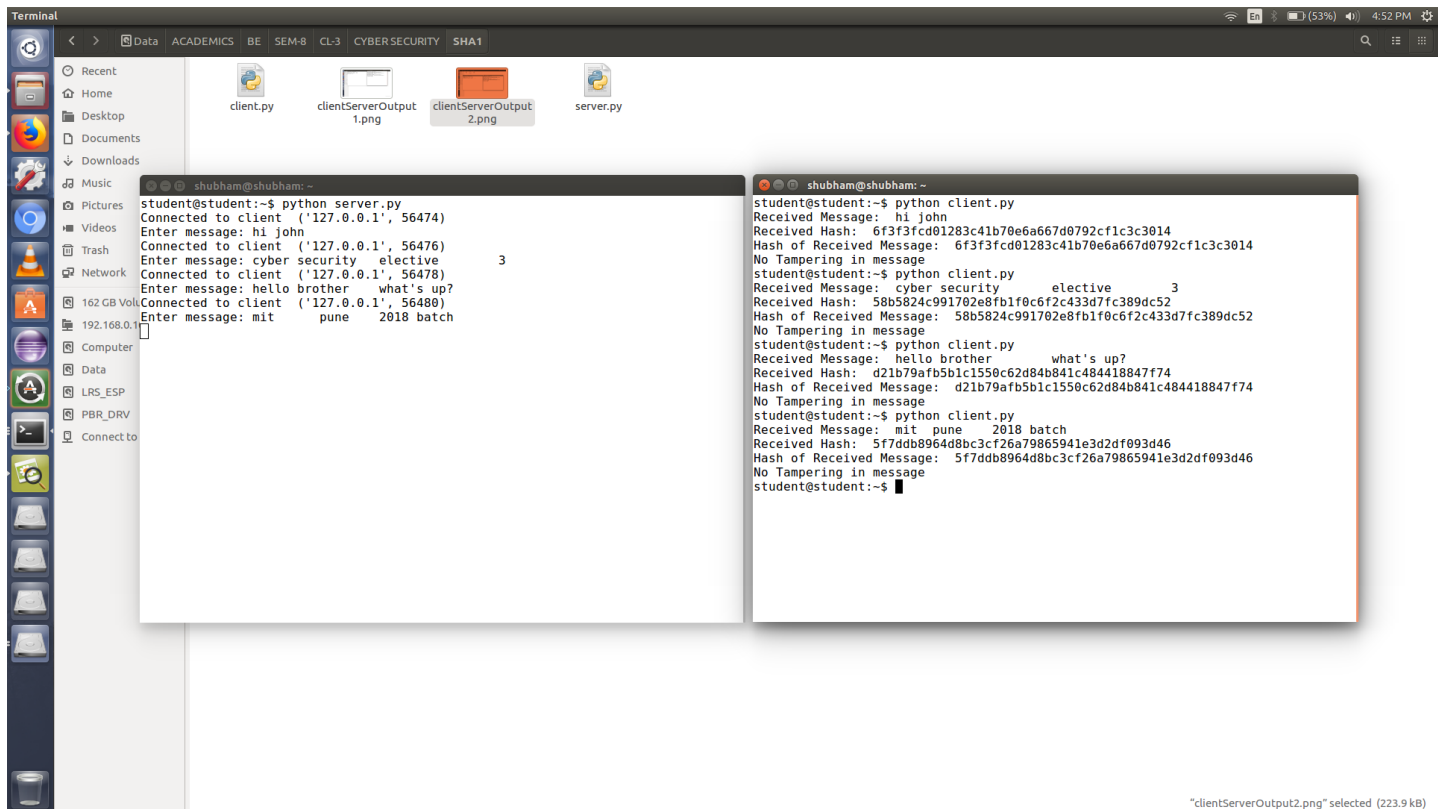
hashValue = receivedString.split("\t")[-1]
print "Received Message: ", message
print "Received Hash: ", hashValue

hashObject = hashlib.sha1(message)
hexDig = hashObject.hexdigest()

print "Hash of Received Message: ", hexDig

if(hexDig == hashValue):
    print "No Tampering in message"
else:
    print "Tampering in message"
```

OUTPUT :



```
student@student:~$ python server.py
Connected to client ('127.0.0.1', 56474)
Enter message: hi john
Connected to client ('127.0.0.1', 56476)
Enter message: cyber security elective
Connected to client ('127.0.0.1', 56478)
Enter message: hello brother what's up?
Connected to client ('127.0.0.1', 56480)
Enter message: mit pune 2018 batch

student@student:~$ python client.py
Received Message: hi john
Received Hash: 6f3f3fcd01283c41b70e6a667d0792cf1c3c3014
Hash of Received Message: 6f3f3fcd01283c41b70e6a667d0792cf1c3c3014
No Tampering in message
student@student:~$ python client.py
Received Message: cyber security elective 3
Received Hash: 58b5824c991702e8fb1f0c6f2c433d7fc389dc52
Hash of Received Message: 58b5824c991702e8fb1f0c6f2c433d7fc389dc52
No Tampering in message
student@student:~$ python client.py
Received Message: hello brother what's up?
Received Hash: d21b79afb5b1c1550c62d84b841c484418847f74
Hash of Received Message: d21b79afb5b1c1550c62d84b841c484418847f74
No Tampering in message
student@student:~$ python client.py
Received Message: mit pune 2018 batch
Received Hash: 5f7ddb8964d8bc3cf26a79865941e3d2df093d46
Hash of Received Message: 5f7ddb8964d8bc3cf26a79865941e3d2df093d46
No Tampering in message
student@student:~$
```

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