

Programming Assignment1

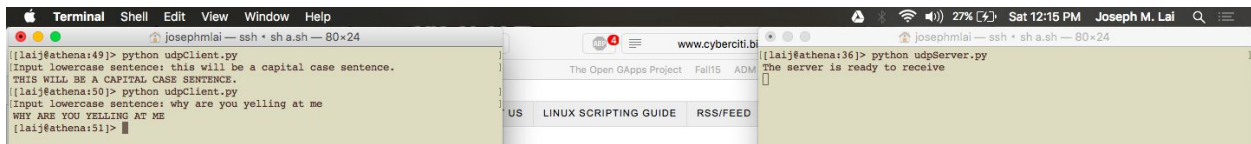
UDP:

Client:

```
from socket import *
serverName = 'athena.ecs.csus.edu'
serverPort = 12000
clientSocket = socket(AF_INET, SOCK_DGRAM)
message = raw_input('Input lowercase sentence: ')
clientSocket.sendto(message, (serverName, serverPort))
modifiedMessage, serverAddress = clientSocket.recvfrom(2048)
print modifiedMessage
clientSocket.close()
```

Server:

```
from socket import *
serverPort = 12000
serverSocket = socket(AF_INET, SOCK_DGRAM)
serverSocket.bind(('', serverPort))
print 'The server is ready to receive'
while 1:
    message, clientAddress = serverSocket.recvfrom(2048)
    modifiedMessage = message.upper()
    serverSocket.sendto(modifiedMessage, clientAddress)
```



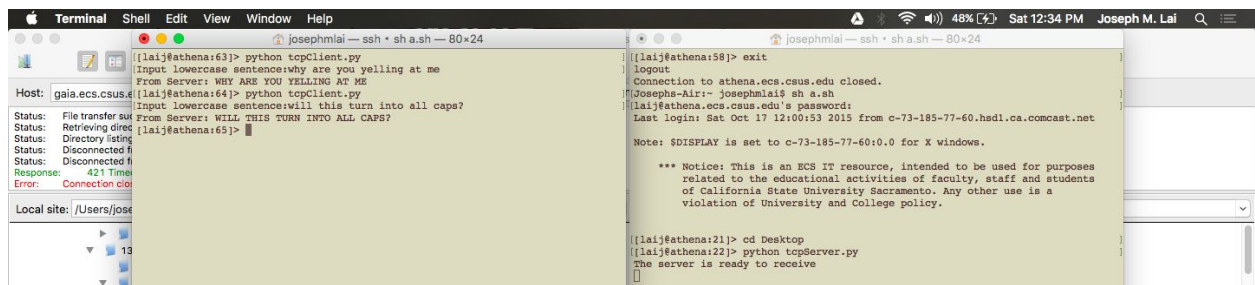
TCP:

client:

```
from socket import *
serverName = 'athena.ecs.csus.edu'
serverPort = 12000
clientSocket = socket(AF_INET, SOCK_STREAM)
clientSocket.connect((serverName, serverPort))
sentence = raw_input('Input lowercase sentence:')
clientSocket.send(sentence)
modifiedSentence = clientSocket.recv(1024)
print 'From Server:', modifiedSentence
clientSocket.close()
```

server:

```
from socket import *
serverPort = 12000
serverSocket = socket(AF_INET, SOCK_STREAM)
serverSocket.bind(('', serverPort))
serverSocket.listen(1)
print 'The server is ready to receive'
while 1:
    connectionSocket, addr = serverSocket.accept()
    sentence = connectionSocket.recv(1024)
    capitalizedSentence = sentence.upper()
    connectionSocket.send(capitalizedSentence)
    connectionSocket.close()
```



```
Terminal Shell Edit View Window Help
Josephmlai -- ssh • sh a.sh -- 80x24

[laij@athena:63] python tcpClient.py
Input lowercase sentence:why are you yelling at me
From Server: WHY ARE YOU YELLING AT ME
[laij@athena:64] python tcpClient.py
Input lowercase sentence:will this turn into all caps?
From Server: WILL THIS TURN INTO ALL CAPS?
[laij@athena:65]
Status: File transfer suc
Status: Retrieving direc
Status: Directory listing
Status: Disconnected f
Status: Disconnected f
Response: 421 Times
Error: Connection clod

Local site: /Users/josephmlai

Josephmlai -- ssh • sh a.sh -- 80x24

[laij@athena:58] exit
logout
Connection to athena.ecs.csus.edu closed.
Josephmlai:~$ josephmlai$ sh a.sh
[laij@athena.ecs.csus.edu's password:
Last login: Sat Oct 17 12:00:53 2015 from c-73-185-77-60.hsd1.ca.comcast.net

Note: $DISPLAY is set to c-73-185-77-60:0.0 for X windows.

*** Notice: This is an ECS IT resource, intended to be used for purposes
related to the educational activities of faculty, staff and students
of California State University Sacramento. Any other use is a
violation of University and College policy.

[laij@athena:21] cd Desktop
[laij@athena:22] python tcpServer.py
The server is ready to receive
```