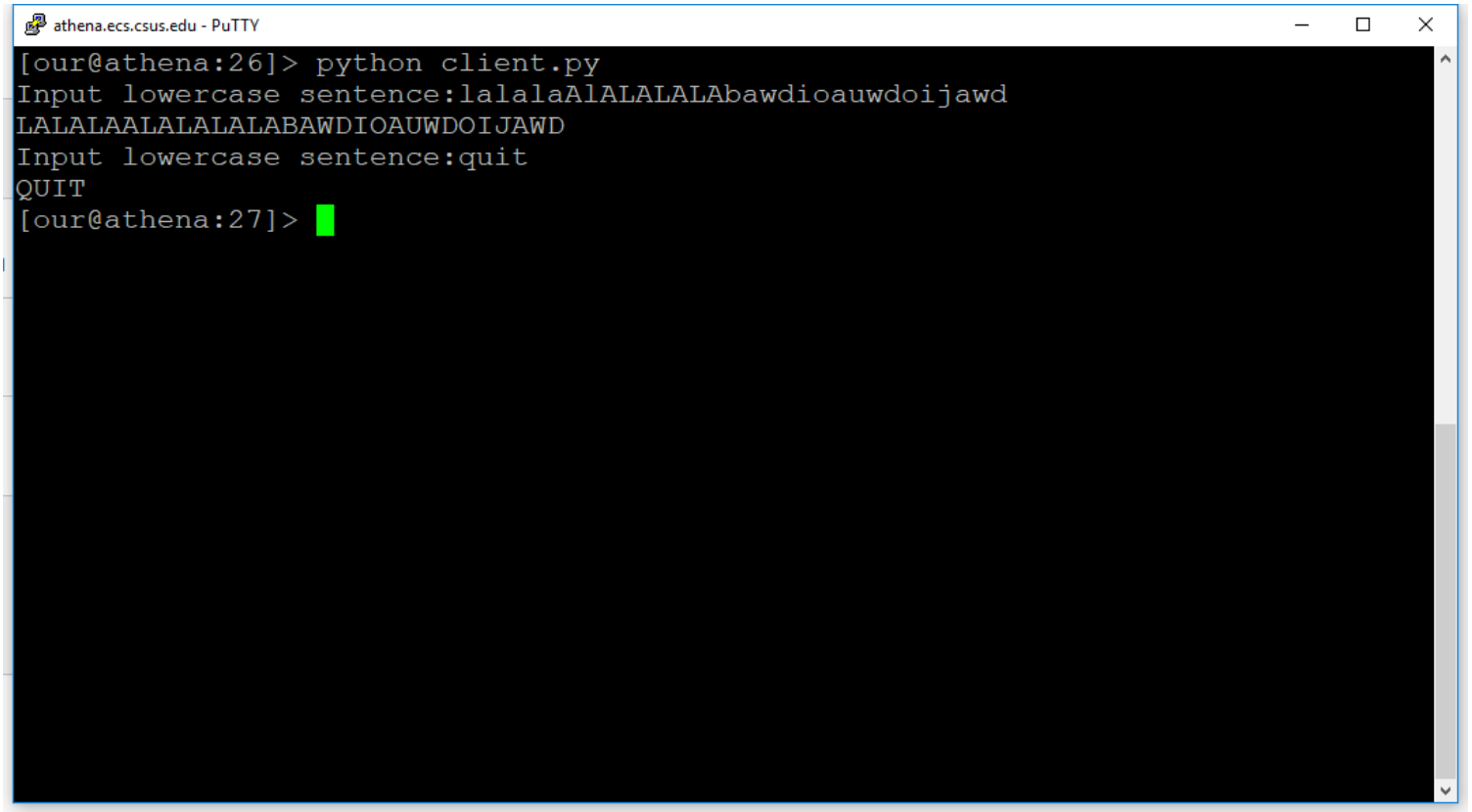
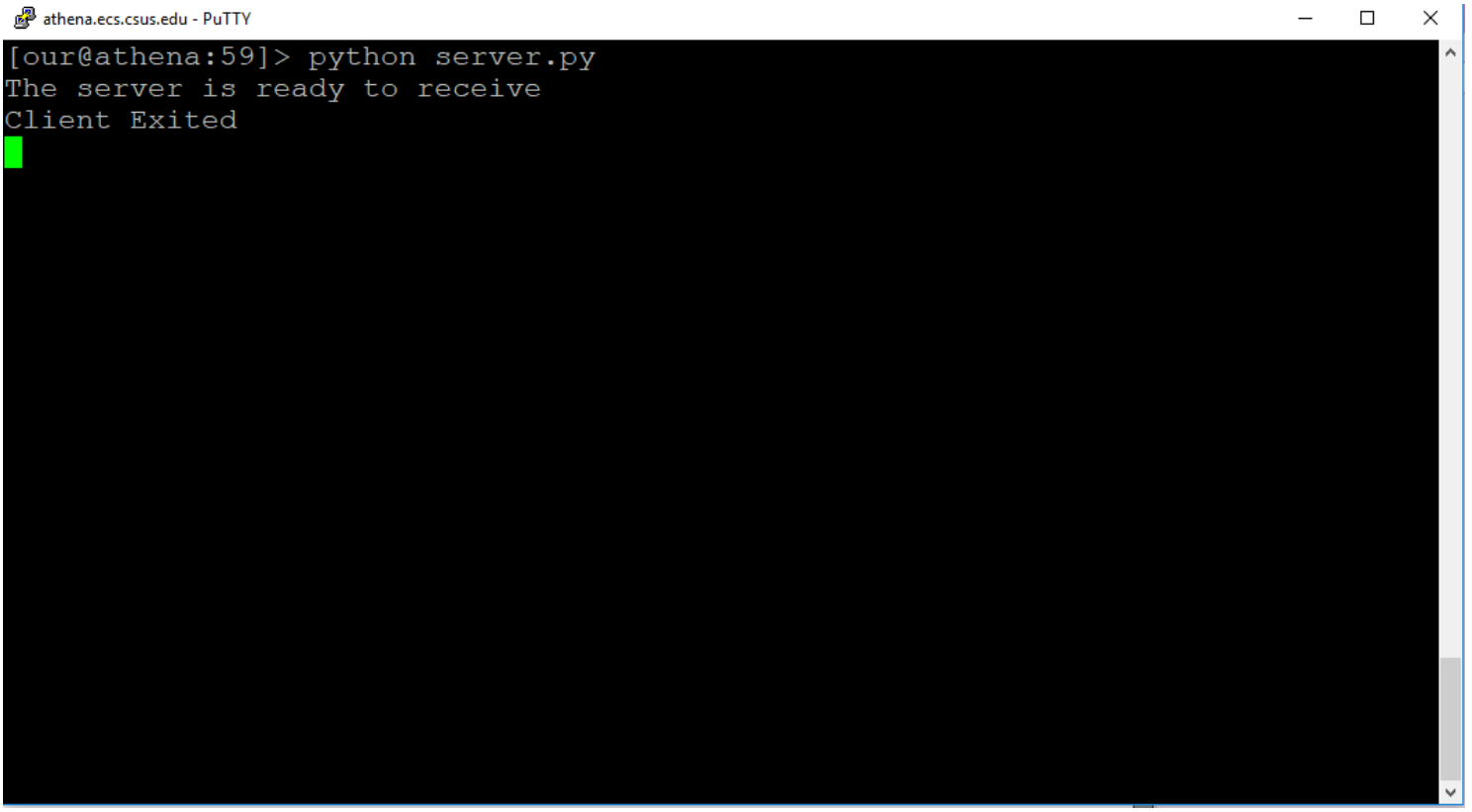
SOCKET PROGRAMMING 1 - RONGGUANG OU

Wednesday, February 20, 2019 8:06 PM

UDP Client SIDE



UDP SERVER SIDE



UDP Client Code

client.py

```python
from socket import*

#server setup
serverName = '127.0.0.1'
serverPort = 1603

#clientSocket object
clientSocket = socket(AF_INET,SOCK_DGRAM)

while True:
    message = raw_input('Input lowercase sentence:')
    clientSocket.sendto(message.encode(),(serverName,serverPort))
    modifiedMessage,serverAddress = clientSocket.recvfrom(2048)
    print modifiedMessage.decode()
    if message == 'quit':
        clientSocket.close()
        break;

#clientSocket.close()
```

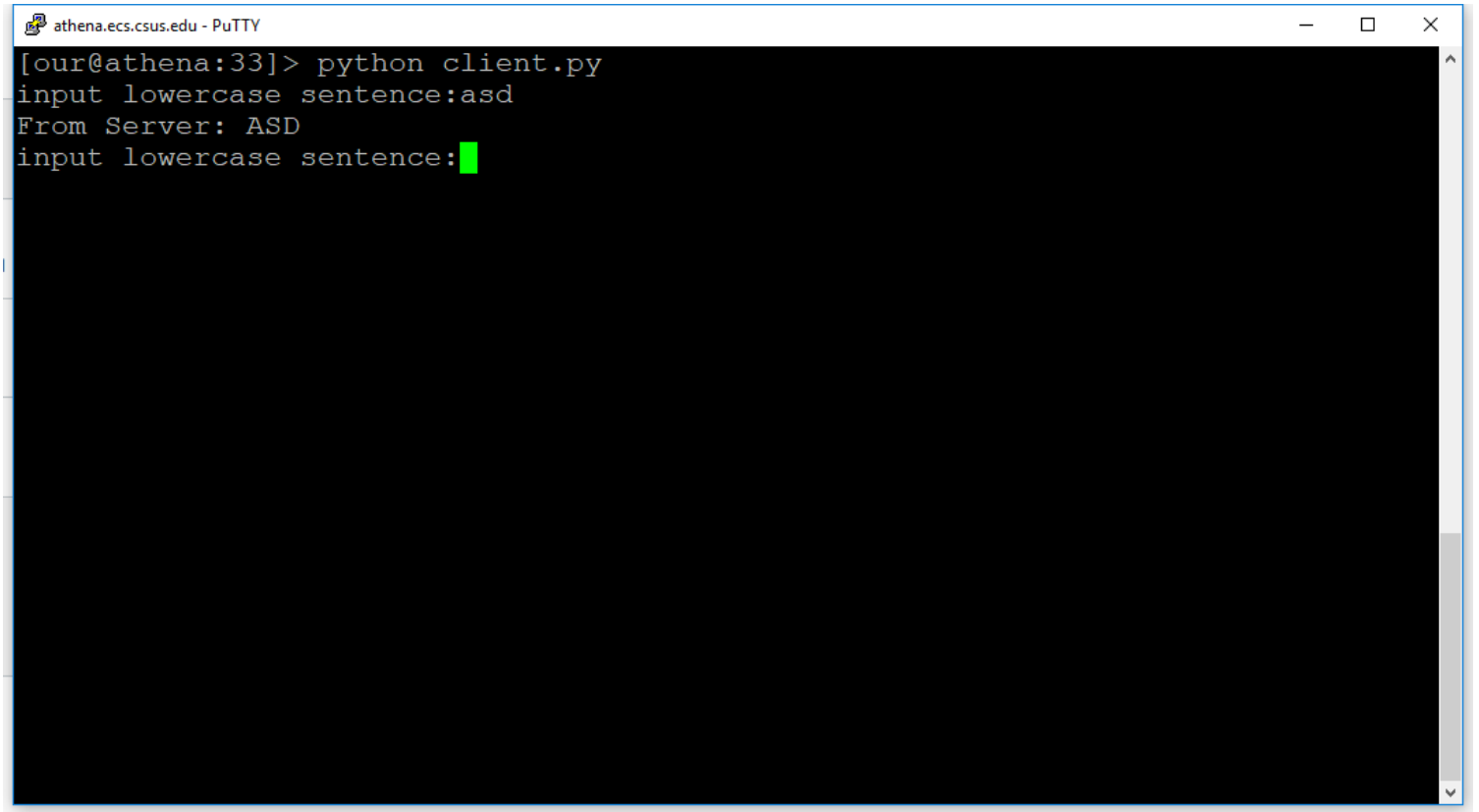
UDP Server Code

server.py

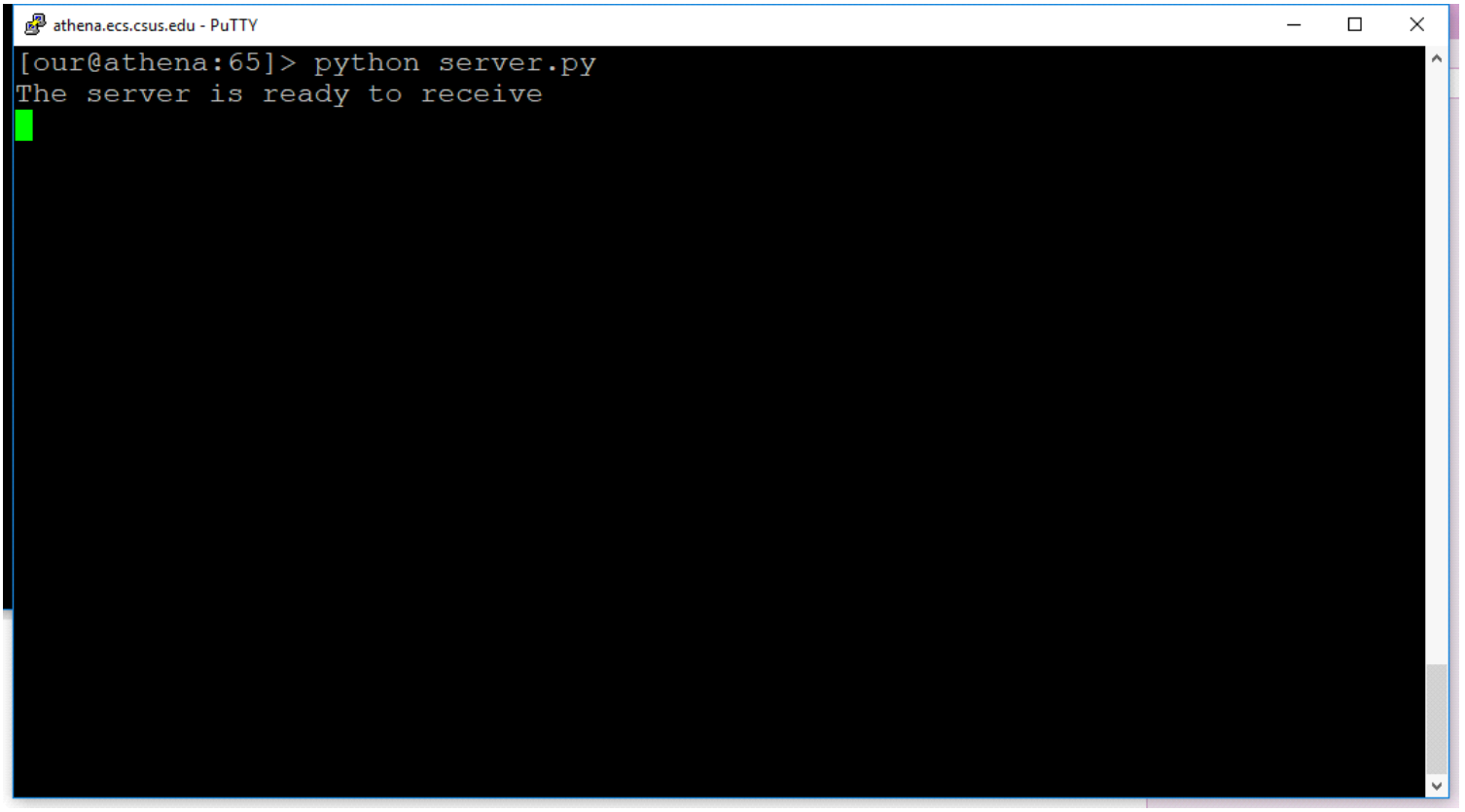
```python
#UDP SERVER CODE
from socket import*


serverPort = 1603
serverSocket = socket(AF_INET,SOCK_DGRAM)
server_address = ('127.0.0.1' , 1603)
serverSocket.bind(server_address)
print("The server is ready to receive")
run = True
while run:
    message,clientAddress = serverSocket.recvfrom(2048)
    #print("Caught incoming message")
    modifiedMessage = message.decode().upper()
    serverSocket.sendto(modifiedMessage.encode(),clientAddress)
    if(message == 'quit'):
        print("Client Exited")
    if(message == 'serverquit'):
        serverSocket.close()
        print("Server Terminated by Client")
        run = False
```

TCP Client Side



TCP Server Side



TCP Client Code

client.py

```
#TCP CLIENT CODE
from socket import*
server_address = ('127.0.0.1',1603)
clientSocket = socket(AF_INET,SOCK_STREAM)
clientSocket.connect(server_address)
while True:
    sentence = raw_input('input lowercase sentence:')
    clientSocket.send(sentence.encode())
    modifiedSentence = clientSocket.recv(1024)
    print('From Server: ' + modifiedSentence.decode())
    clientSocket.close()
```

TCP Server Code

server.py

```
#TCP SERVER CODE
from socket import*
server_address = ('127.0.0.1' , 1603)
serverSocket = socket(AF_INET,SOCK_STREAM)
serverSocket.bind(server_address)
serverSocket.listen(1)
while True:
    print 'The server is ready to receive'
    connectionSocket, addr = serverSocket.accept()
    sentence = connectionSocket.recv(1024).decode()
    capitalizedSentence = sentence.upper()
    connectionSocket.send(capitalizedSentence.encode())
    connectionSocket.close()

```