

Codice socket programming

UDP client

```
from socket import *
serverName = 'localhost'
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()
```

UDP 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)
    print "Datagram from: ", clientAddress
    modifiedMessage = message.upper()
    serverSocket.sendto(modifiedMessage, clientAddress)
```

TCP client

```
from socket import *
serverName = 'localhost'
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()
```

TCP 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 True:
    connectionSocket, clientAddress = serverSocket.accept()
    print "Connection form: ", clientAddress
    sentence = connectionSocket.recv(1024)
    capitalizedSentence = sentence.upper()
    connectionSocket.send(capitalizedSentence)
    connectionSocket.close()
```

TCP client persistent

```
from socket import *
serverName = 'localhost'
serverPort = 12000
clientSocket = socket(AF_INET, SOCK_STREAM)
clientSocket.connect((serverName, serverPort))
while True:
    sentence = raw_input('Input lowercase sentence ( . to stop):')
    clientSocket.send(sentence)
```

```
    if sentence == '.':
        break
    modifiedSentence = clientSocket.recv(1024)
    print 'From Server:', modifiedSentence
clientSocket.close()
```

TCP server persistent

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