FINAL ASSESSMENT EXAMINATION LAB – NOVEMBER 2019
SCHOOL OF COMPUTING SCIENCE AND ENGINEERING
PROGRAMME: B.TECH CSE
SBJECT CODE: CSE1004
SUBJECT TITTLE: NETWORK AND COMMUNICATION

DATE: 06.11.2019

Name Aadhitya

Question no 5 :
Implement the IPv4 address validation for connection oriented protocol using socket programming and print the results.

Server :

```
import socket

s = socket.socket(socket.AF_INET, socket.SOCK_STREAM)
port = 1121
s.bind(('', port))

s.listen(20)

cli, addr = s.accept()

data = cli.recv(1024)
data = data.decode()
print("Address Recieved")

a = data.split('.')
res = True
if len(a)!=4 :
    res = False

if res==True :
    for i in a :
        if len(i)==0 or (i[0] == '0' and len(i)>1) or (int(i)==0 and len(i)>0) :
            res = False
            break

    if res==True :
        arr = list(map(int, data.split('.')))
        for num in range(len(arr)):
```

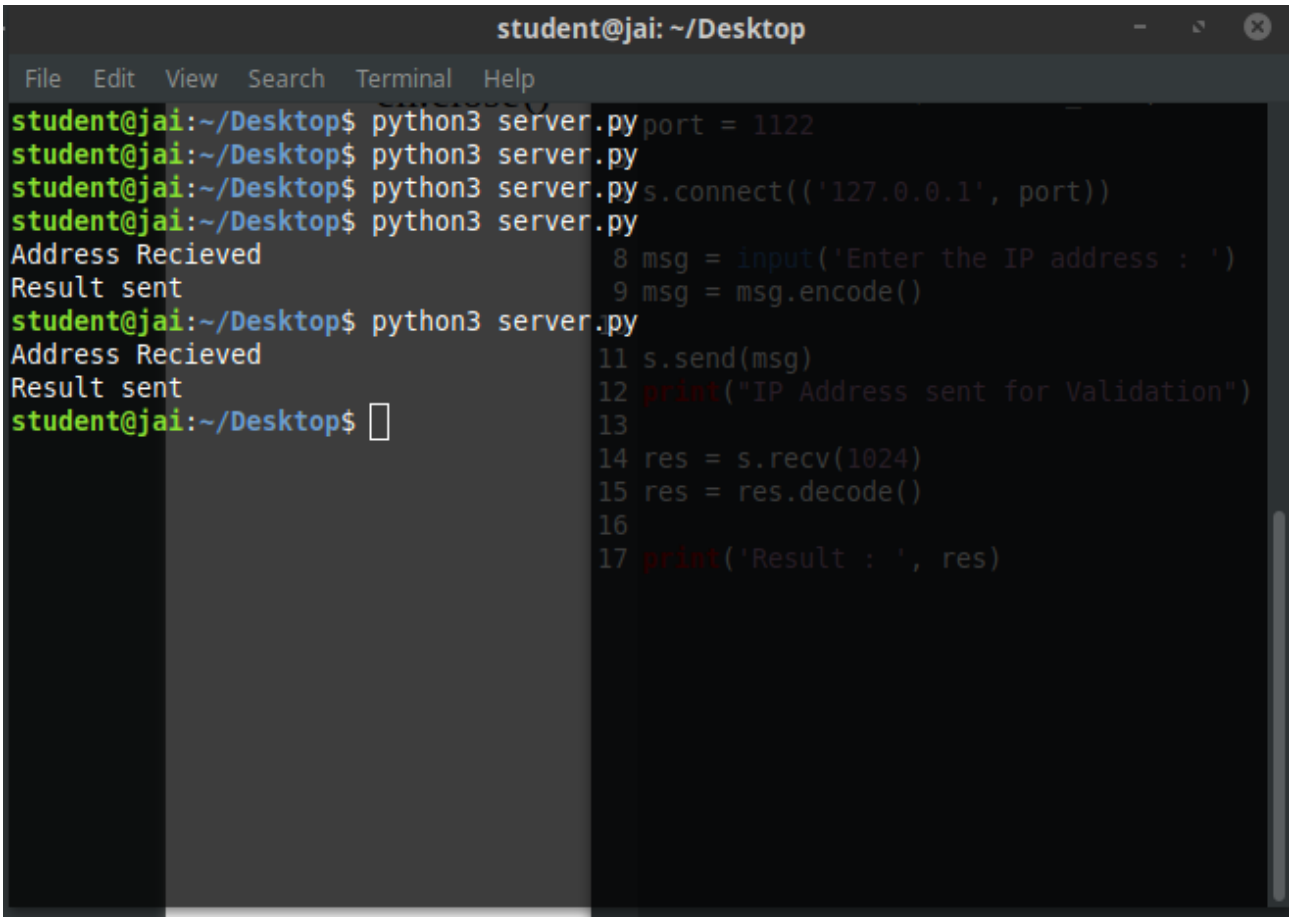
```
            if arr[num]<0 or arr[num]>255:
                res = False
                break

if res==True :
    result = "Valid"
else :
    result = "Invalid"

result = result.encode()
cli.send(result)

print("Result sent")

cli.close()
```



Client :

```
import socket

s = socket.socket(socket.AF_INET, socket.SOCK_STREAM)
port = 1121
```

```
s.connect(('127.0.0.1', port))

msg = input('Enter the IP address : ')
msg = msg.encode()

s.send(msg)
print("IP Address sent for Validation")

res = s.recv(1024)
res = res.decode()

print('Result : ', res)
```