

## **Data Communication and Computer Networks**

### **Lab Assignment 3**

#### **Ques:**

WRITE A SOCKET PROGRAMING FOR IDENTIFY THE CLASS OF A GIVEN ADDRESS. (Using TCP or UDP)

127.134.26.75

220.137.49.72

197.145.12.14

224.145.126.8

#### **Code :**

**Da0192\_server.py ->**

#Using TCP

import socket

s = socket.socket()

host = "127.0.0.1"

port = 1234

s.bind((host, port))

s.listen(5)

print("Server is running...")

def getClass(data):

ll = data.split('.')

op = ll[0]

cl = int(op)

ans = 0

if(cl >=0 and cl <= 127):

ans = "A"

elif(cl >= 128 and cl <= 191):

ans = "B"

elif(cl >=192 and cl<=223):

ans = "C"

elif(cl>=224 and cl <=255):

ans = "D"

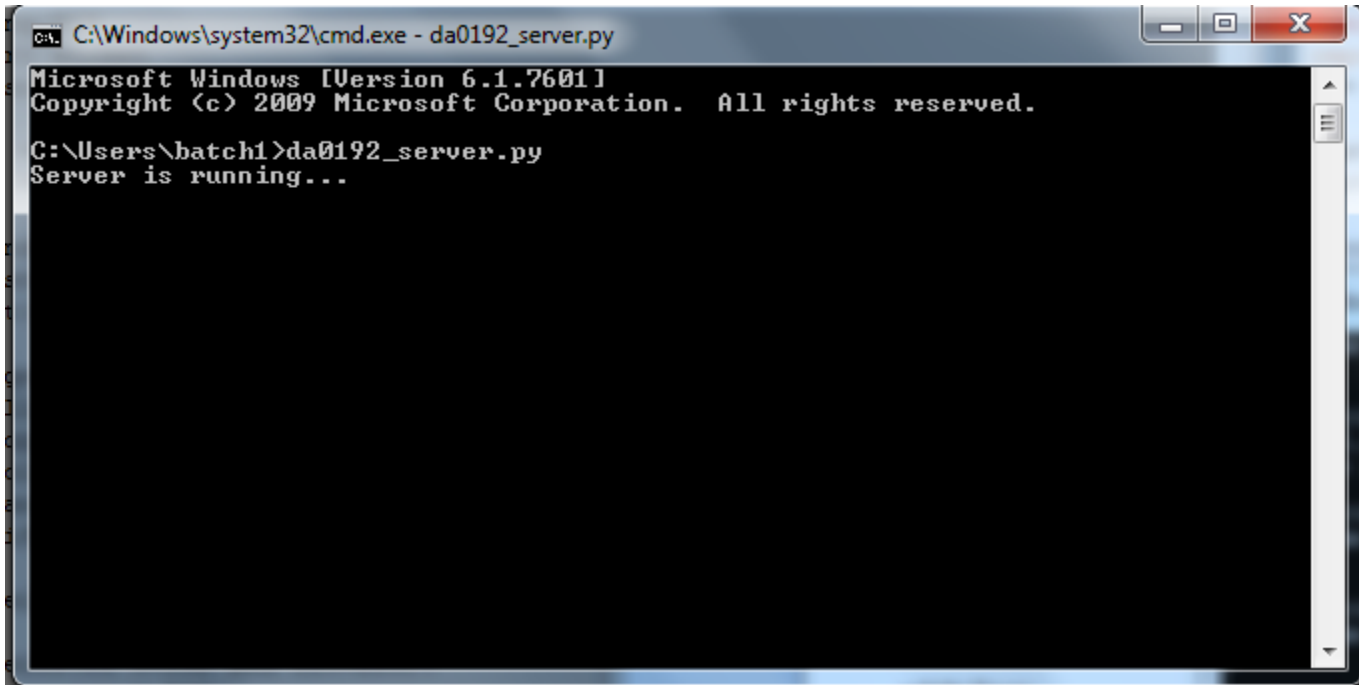
return ans

while True:

c, addr = s.accept()

```
data = c.recv(1024).decode()
op = getClass(data)
c.send(op.encode())
c.close()
```

## Server output ->

A screenshot of a Windows command prompt window. The title bar reads "C:\Windows\system32\cmd.exe - da0192\_server.py". The window content shows the Microsoft Windows logo, version 6.1.7601, and copyright information for 2009. Below this, the command "C:\Users\batch1>da0192\_server.py" has been entered, and the output "Server is running..." is displayed. The window has standard Windows window controls (minimize, maximize, close) in the top right corner.

```
C:\Windows\system32\cmd.exe - da0192_server.py
Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.

C:\Users\batch1>da0192_server.py
Server is running...
```

## Da0192\_client.py ->

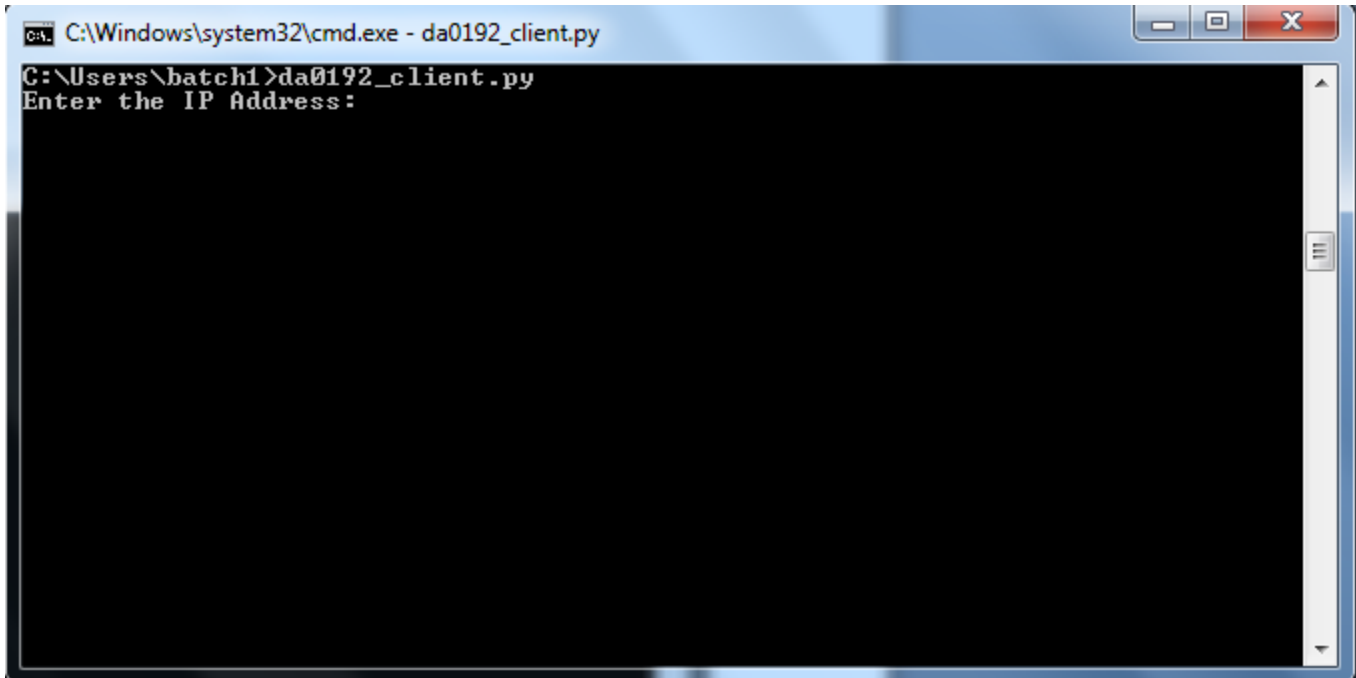
```
#Using TCP
import socket
s = socket.socket()

host = "127.0.0.1"
port = 1234

s.connect((host, port))

inp = input("Enter the IP Address: ")
s.send(inp.encode())
op = s.recv(1024).decode()
print(op)
```

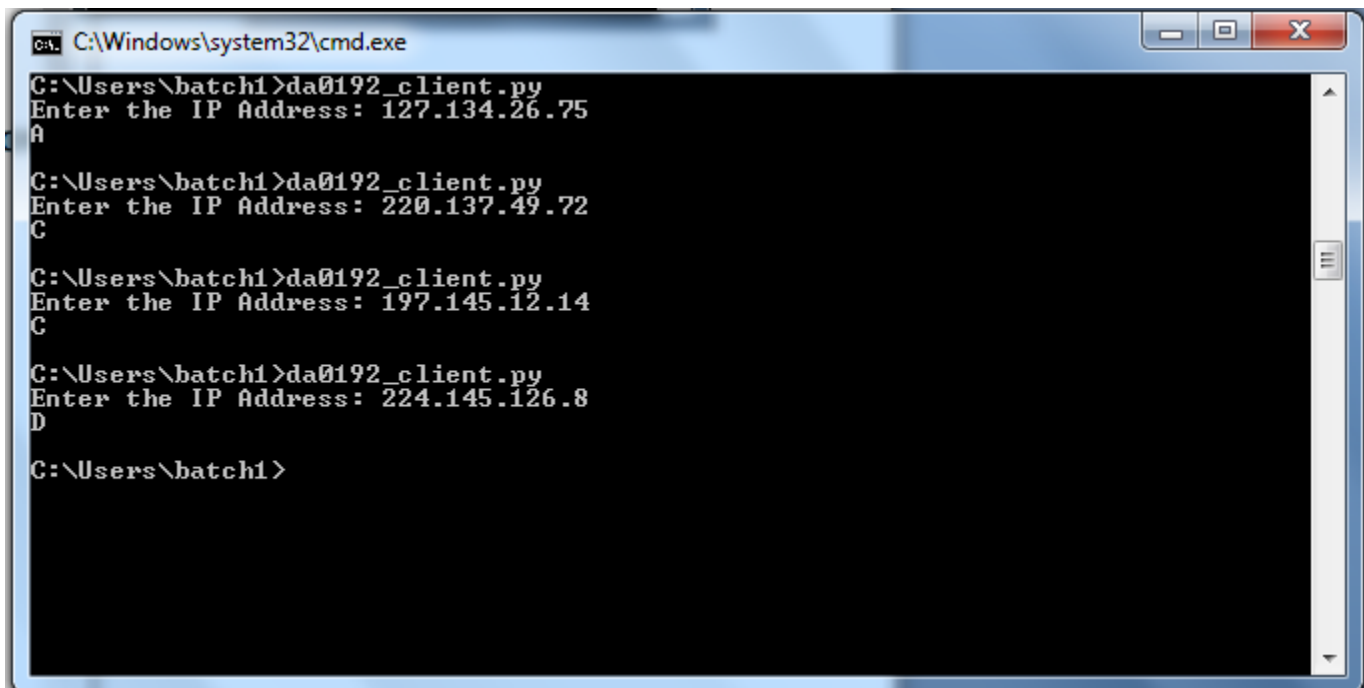
## Client Screenshot ->



A screenshot of a Windows command prompt window. The title bar reads "C:\Windows\system32\cmd.exe - da0192\_client.py". The command prompt shows the user running "C:\Users\batch1>da0192\_client.py", followed by the prompt "Enter the IP Address:".

```
C:\Windows\system32\cmd.exe - da0192_client.py
C:\Users\batch1>da0192_client.py
Enter the IP Address:
```

## Output Screenshot ->



A screenshot of a Windows command prompt window. The title bar reads "C:\Windows\system32\cmd.exe". The command prompt shows the user running "C:\Users\batch1>da0192\_client.py" four times, each time followed by a different IP address and a letter (A, C, C, D). The output of the program is not visible.

```
C:\Windows\system32\cmd.exe
C:\Users\batch1>da0192_client.py
Enter the IP Address: 127.134.26.75
A

C:\Users\batch1>da0192_client.py
Enter the IP Address: 220.137.49.72
C

C:\Users\batch1>da0192_client.py
Enter the IP Address: 197.145.12.14
C

C:\Users\batch1>da0192_client.py
Enter the IP Address: 224.145.126.8
D

C:\Users\batch1>
```