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Data Communication and Computer Networks

DA – 4

Ques ->

Army camp is recruiting trainee by considering different parameters such as height, weight, and age and chest measurement. Selection will be based on the following conditions.

Age should be greater than 18 and less than 25

Height should be between 5.2 to 5.6 inches

Weight should be between 45 to 60kg

Chest should be greater than 45cm

Write a python program to find whether the person to fit to the army or not .print the reason for disqualification like (disqualified due to age, due to height, weight and chest)

Code:

Server.py ->

```
import socket
port=9999
s=socket.socket()
host=socket.gethostname()
s.bind((host,port))
s.listen(5)
print("Server listening...")
while True:
    conn, addr=s.accept()
    print("Got connection from ",addr)
    data=conn.recv(1024)
```

```
print("Server reviewed ",repr(data))
filename='correct.txt'
f=open(filename,'r')
l=f.read(1024)
while(l):
    data = l.split(" ")
    age = int(data[0])
    height = float(data[1])
    weight = int(data[2])
    chest = int(data[3])

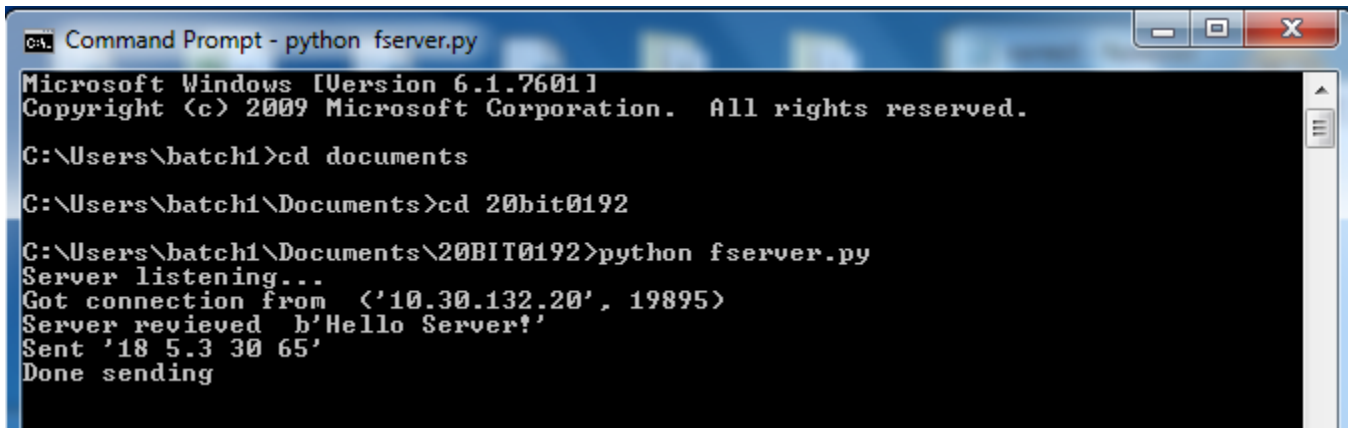
    if(age < 18 or age > 25):
        conn.send("Disqualified, Since age is not correct".encode("utf-8"))
    elif(height < 5.2 or height > 5.6):
        conn.send("Disqualified, Since height is not correct".encode("utf-8"))
    elif(weight < 45 or weight > 60):
        conn.send("Disqualified, Since weight is not correct".encode("utf-8"))
    elif(chest <45):
        conn.send("Disqualified, Since chest is not correct".encode("utf-8"))
    else:
        conn.send("Qualified, yay!".encode("utf-8"))
    print('Sent',repr(l))
    l=f.read(1024)
f.close()
print("Done sending")
conn.close()
```

Client.py ->

```
import socket
c=socket.socket()
host=socket.gethostname()
port=9999
c.connect((host,port))
c.send('Hello Server!'.encode('utf-8'))
with open('output.txt','w') as f:
    print("file opened")
    while True:
        print("receiving data...")
        data=c.recv(1024)
        if not data:
            break
        print(data.decode("utf-8"))
        f.write(data.decode("utf-8"))
f.close()
print("Successfully get the file")
c.close()
print("Connection closed")
```

Output ->

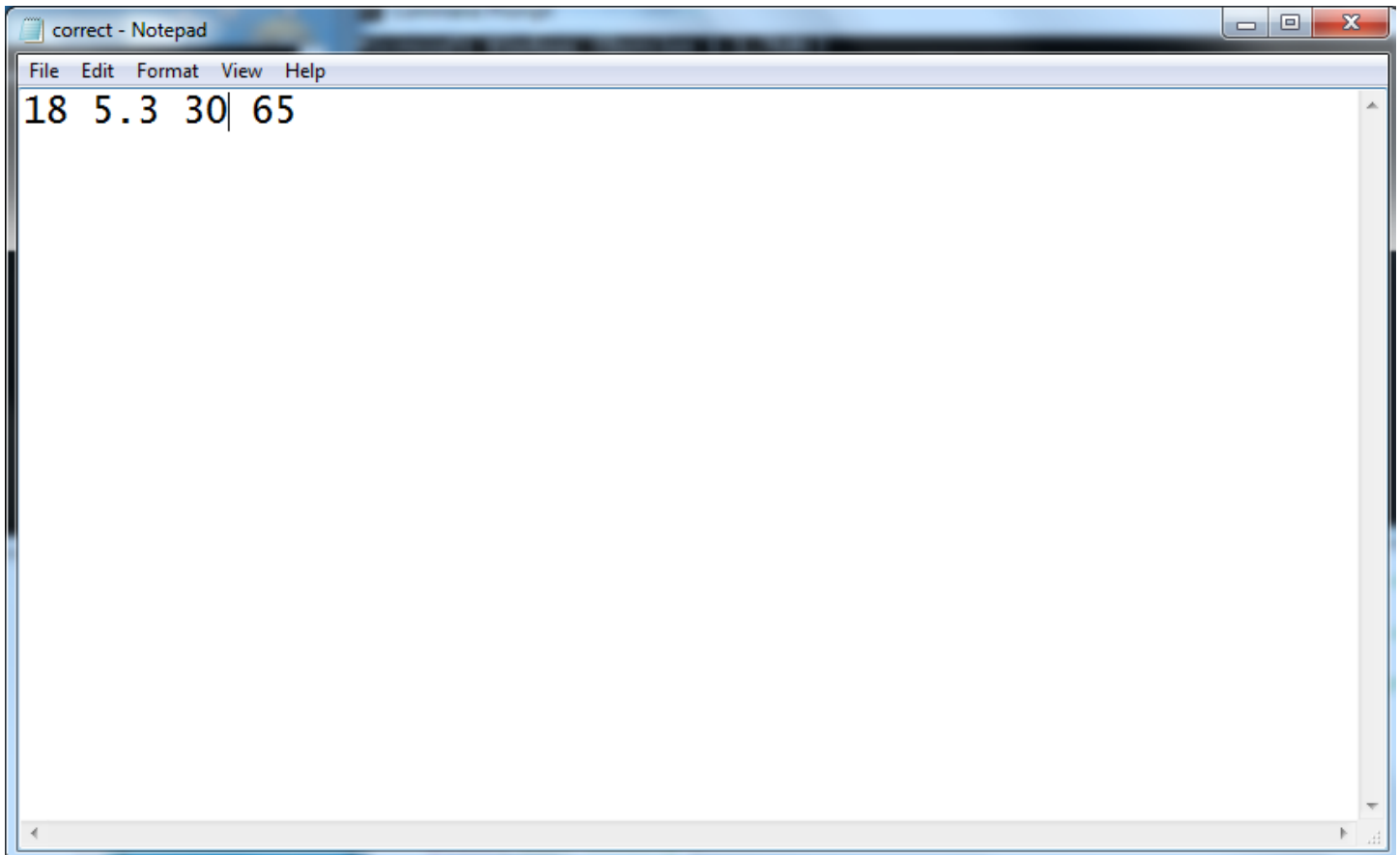
Server output ->



```
Command Prompt - python fserver.py
Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.

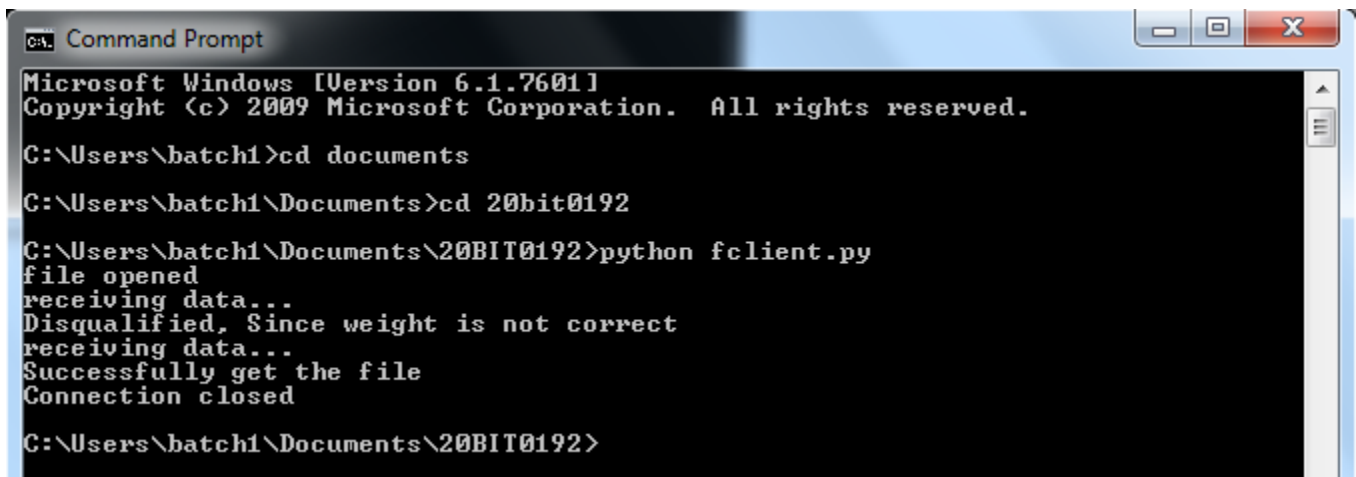
C:\Users\batch1>cd documents
C:\Users\batch1\Documents>cd 20bit0192
C:\Users\batch1\Documents\20BIT0192>python fserver.py
Server listening...
Got connection from (<10.30.132.20', 19895)
Server reviewed b'Hello Server!'
Sent '18 5.3 30 65'
Done sending
```

For Wrong input ->



```
correct - Notepad
File Edit Format View Help
18 5.3 30| 65
```

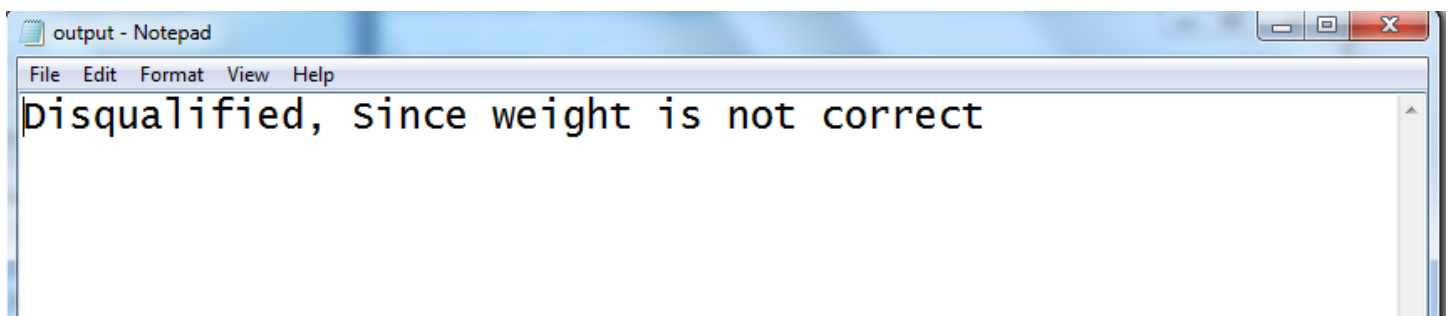
Client output ->



```
Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.

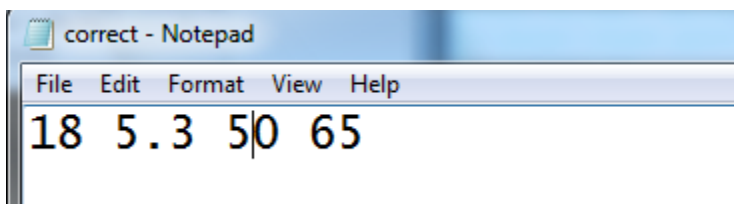
C:\Users\batch1>cd documents
C:\Users\batch1\Documents>cd 20bit0192
C:\Users\batch1\Documents\20BIT0192>python fclient.py
file opened
receiving data...
Disqualified, Since weight is not correct
receiving data...
Successfully get the file
Connection closed
C:\Users\batch1\Documents\20BIT0192>
```

Output File:



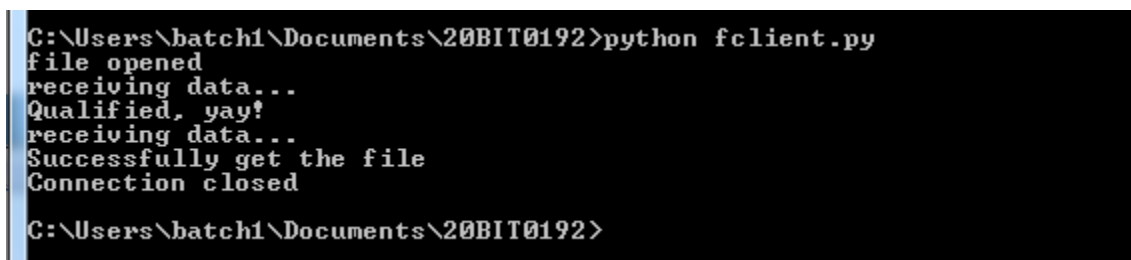
```
output - Notepad
File Edit Format View Help
Disqualified, since weight is not correct
```

For correct input ->



```
correct - Notepad
File Edit Format View Help
18 5.3 50 65
```

Client output ->



```
C:\Users\batch1\Documents\20BIT0192>python fclient.py
file opened
receiving data...
Qualified, yay!
receiving data...
Successfully get the file
Connection closed
C:\Users\batch1\Documents\20BIT0192>
```

File Output ->

