**MDS Assignment – 08**

**SERVER.py**

from http import server

from re import X

import socket

from \_thread import \*

import mysql.connector

host = '127.0.0.1'

port = 1233

ThreadCount = 0

conn=mysql.connector.connect(host='localhost',username='root',password='Aishwarya@123',database='college')

my\_curr=conn.cursor()

try:

my\_curr.execute("select \* from student2")

result=my\_curr.fetchall()

print("Actual Table")

for i in result:

print(i)

j=0;

except:

conn.rollback()

def sort\_function():

pass

def client\_handler(connection):

connection.send(str.encode('You are now connected to the replay server... Type BYE to stop'))

n=len(result)

global j;

arr1=[]

arr2=[]

arr3=[]

for i in range(n):

if(result[i][0]<6):

arr1.append(result[i])

elif(result[i][0]>=6 and result[i][0]<=10):

arr2.append(result[i])

else:

arr3.append(result[i])

if(j==0):

for i in range(len(arr1)):

str1=""

for k in arr1[i]:

str1+=str(k)+" "

str1+='\n'

connection.send(str.encode(str1))

elif(j==1):

for i in range(len(arr2)):

str1=""

for k in arr2[i]:

str1+=str(k)+" "

str1+='\n'

connection.send(str.encode(str1))

else:

for i in range(len(arr3)):

str1=""

for k in arr3[i]:

str1+=str(k)+" "

str1+='\n'

connection.send(str.encode(str1))

j+=1

while True:

data = connection.recv(2048)

message = data.decode('utf-8')

if message == 'BYE':

break

reply = f'Server: {message}'

connection.send(str.encode(str1))

connection.close()

def accept\_connections(ServerSocket):

Client, address = ServerSocket.accept()

print('Connected to: ' + address[0] + ':' + str(address[1]))

start\_new\_thread(client\_handler, (Client,))

def start\_server(host, port):

ServerSocket = socket.socket()

try:

ServerSocket.bind((host, port))

except socket.error as e:

print(str(e))

print(f'Server is listing on the port {port}...')

ServerSocket.listen()

while True:

accept\_connections(ServerSocket)

start\_server(host, port)

**Client.py**

import socket

host = '127.0.0.1'

port = 1233

ClientSocket = socket.socket()

print('Waiting for connection')

try:

ClientSocket.connect((host, port))

except socket.error as e:

print(str(e))

Response = ClientSocket.recv(2048)

arr1=[]

while True:

Input = input('Your message: ')

ClientSocket.send(str.encode(Input))

Response = ClientSocket.recv(2048)

arr1.append(Response.decode('utf-8'))

sol=arr1[0].split('\n')

s=[]

for i in range(len(sol)-1):

val=sol[i].split(' ')

s.append(float(val[3]))

s.sort(reverse=True)

sorted\_arr=[]

for j in range(len(s)):

for i in range(len(sol)-1):

val=sol[i].split(' ')

if(s[j]==float(val[3])):

sorted\_arr.append(sol[i])

for i in sorted\_arr:

print(i)

ClientSocket.close()

**OUTPUT:-**

**Server output-**

PS E:\Dynamix> cd MDS-6

PS E:\Dynamix\MDS-6> python server.py

Actual Table

(id,div,branch,cgpa)

(1, 'A', 'CSE', 8.0)

(2, 'B', 'CSE', 8.3)

(3, 'A', 'IT', 8.6)

(4, 'A', 'IT', 5.3)

(5, 'B', 'IT', 7.8)

(6, 'A', 'ENTC', 5.0)

(7, 'B', 'ENTC', 9.0)

(8, 'B', 'CSE', 9.7)

(9, 'B', 'CSE', 10.0)

(10, 'A', 'IT', 9.0)

(11, 'B', 'CSE', 10.0)

(12, 'B', 'CSE', 7.5)

(14, 'B', 'ENTC', 6.0)

(15, 'B', 'ENTC', 8.0)

(13, 'A', 'IT', 7.0)

Server is listing on the port 1233...

Connected to: 127.0.0.1:54730

Connected to: 127.0.0.1:54733

Connected to: 127.0.0.1:54736

**Client 1 :-**

PS E:\Dynamix> cd MDS-6

PS E:\Dynamix\MDS-6> python client.py

Waiting for connection

Your message: hi

(id,div,branch,cgpa)

3 A IT 8.6

2 B CSE 8.3

1 A CSE 8.0

5 B IT 7.8

4 A IT 5.3

**Client 2:-**

PS E:\Dynamix> cd MDS-6

PS E:\Dynamix\MDS-6> python client.py

Waiting for connection

Your message: hi

(id,div,branch,cgpa)

9 B CSE 10.0

8 B CSE 9.7

7 B ENTC 9.0

10 A IT 9.0

7 B ENTC 9.0

10 A IT 9.0

6 A ENTC 5.0

**Client 3:-**

PS E:\Dynamix> cd MDS-6

PS E:\Dynamix\MDS-6> python client.py

Waiting for connection

Your message: hi

(id,div,branch,cgpa)

11 B CSE 10.0

15 B ENTC 8.0

12 B CSE 7.5

13 A IT 7.0

14 B ENTC 6.0

Your message: