

## CYCLE 2 PROGRAM 4

Using UDP sockets, write a client-server program to make client sending the file name and the server to send back the contents of the requested file if present.

Code:

Server.py

```
from socket
import *serverPort
= 12000
serverSocket = socket(AF_INET, SOCK_DGRAM)
serverSocket.bind(('127.0.0.1', serverPort))
print ('The server is ready to receive')
while 1:
    sentence, clientAddress =
    serverSocket.recvfrom(2048)sentence =
    sentence.decode('utf-8') file=open(sentence,"r")
    con=file.read(2048)

    serverSocket.sendto(bytes(con,'utf-

8'),clientAddress)print ('\nSent contents of ', end = "")
print (sentence)
# for i in sentence:
    # print (str(i), end =
    "")file.close()
```

Client.py:

```
from socket import *
serverName =
'127.0.0.1'
```

```

serverPort = 12000
clientSocket = socket(AF_INET, SOCK_DGRAM)
sentence = input('\nEnter file name: ')
clientSocket.sendto(bytes(sentence,'utf-8'),(serverName,
serverPort))
filecontents,serverAddress = clientSocket.recvfrom(2048)
print ('\nReply from Server:\n')
print (filecontents.decode('utf-
8'))clientSocket.close()
clientSocket.close()

```

Output:

The screenshot displays two Python IDE windows side-by-side, illustrating a client-server interaction.

**Left Window (client.py):** The code defines a client socket and sends a file name to the server. The output shows the client sending the file name and receiving a reply from the server.

```

client.py - C:/Users/Admin/Desktop/18A21C5047/CN/client.py (3.10.8)
File Edit Format Run Options Window Help
from socket import *
serverName = '127.0.0.1'

serverPort = 12000
clientSocket = socket(AF_INET, SOCK_DGRAM)
sentence = input('\nEnter file name: ')
clientSocket.sendto(bytes(sentence,'utf-8'),(serverName,
serverPort))
filecontents,serverAddress = clientSocket.recvfrom(2048)
print ('\nReply from Server:\n')
print (filecontents.decode('utf-8'))
clientSocket.close()
clientSocket.close()

Python 3.10.8 [tags/v3.10.8:aaaf517, Oct 11 2022, 16:50:30] [MSC v.1933 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
===== RESTART: C:/Users/Admin/Desktop/18A21C5047/CN/client.py =====
Enter file name: serverup.py
Reply from Server:
from socket import *
serverPort = 12000
serverSocket = socket(AF_INET, SOCK_DGRAM)
serverSocket.bind(('127.0.0.1', serverPort))
print ('The server is ready to receive')
while 1:
    sentence, clientAddress = serverSocket.recvfrom(2048)
    sentence = sentence.decode('utf-8')
    file=open(sentence,"r")
    con=file.read(2048)

    serverSocket.sendto(bytes(con,'utf-8'),clientAddress)

print ('\nSent contents of ', end = '')
print (sentence)
# for i in sentence:
#     print (str(i), end = '')
file.close()
>>>

```

**Right Window (server.py):** The code defines a server socket and listens for incoming connections. The output shows the server binding to the port and receiving a connection from the client.

```

server.py - C:/Users/Admin/AppData/Local/Programs/Python/Python310/serverup.py (3.10.8)
File Edit Format Run Options Window Help
from socket import *
serverPort = 12000
serverSocket = socket(AF_INET, SOCK_DGRAM)
serverSocket.bind(('127.0.0.1', serverPort))
print ('The server is ready to receive')
while 1:
    sentence, clientAddress = serverSocket.recvfrom(2048)
    sentence = sentence.decode('utf-8')
    file=open(sentence,"r")
    con=file.read(2048)

    serverSocket.sendto(bytes(con,'utf-8'),clientAddress)

print ('\nSent contents of ', end = '')
print (sentence)
# for i in sentence:
#     print (str(i), end = '')
file.close()

Python 3.10.8 [tags/v3.10.8:aaaf517, Oct 11 2022, 16:50:30] [MSC v.1933 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
===== RESTART: C:/Users/Admin/AppData/Local/Programs/Python/Python310/serverup.py =====
0/serverup.py
The server is ready to receive
>>>

```