Aim: 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:

ServerUDP.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(1024)

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

ClientUDP.py

```
from socket import *

serverName = "127.0.0.1"
serverPort = 12000
clientSocket = socket(AF_INET, SOCK_DGRAM)

try:
    sentence = input("\nEnter file name: ")
    clientSocket.sendto(bytes(sentence, "utf-8"), (serverName,
serverPort))
    filecontents, serverAddress = clientSocket.recvfrom(1024)
    print('\nReply from Server:\n')
    print(filecontents.decode("utf-8"))
except Exception as e:
    print(f"An error occurred: {e}")

clientSocket.close()
```

Output:

ServerUDP.py ClientUDP.py

UDP > ServerUDP.py > ...

```python
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(1024)
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

```
PS D:\jyothika\CN> & C:/Users/Jyothika/AppData/Local/Programs/Python/Python311/python.exe d:/jyothika/CN/UDP/ServerUDP.py
The server is ready to receive
```

ServerUDP.py ClientUDP.py

UDP > ClientUDP.py > ...

```python
from socket import *

serverName = "127.0.0.1"
serverPort = 12000
clientSocket = socket(AF_INET, SOCK_DGRAM)

try:
    sentence = input("\nEnter file name: ")
    clientSocket.sendto(bytes(sentence, "utf-8"), (serverName, serverPort))
    filecontents, serverAddress = clientSocket.recvfrom(1024)
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

```
PS D:\jyothika\CN> & C:/Users/Jyothika/AppData/Local/Programs/Python/Python311/python.exe d:/jyothika/CN/UDP/ClientUDP.py

Enter file name: d:\jyothika\CN\UDP\ServerUDP.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(1024)

 serverSocket.sendto(bytes(con,"utf-8"),clientAddress)
 print ('\nSent contents of ', end = ' ')
 print (sentence)
 # for i in sentence:
 # print (str(i), end = '')
 file.close()
PS D:\jyothika\CN>
```

ServerUDP.py ClientUDP.py

UDP > ServerUDP.py > ...

```python
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")
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    sentence, clientAddress = serverSocket.recvfrom(2048)
    sentence = sentence.decode("utf-8")
    file=open(sentence,"r")
    con=file.read(1024)
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

```
PS D:\jyothika\CN> & C:/Users/Jyothika/AppData/Local/Programs/Python/Python311/python.exe d:/jyothika/CN/UDP/ServerUDP.py
The server is ready to receive

Sent contents of  d:\jyothika\CN\UDP\ServerUDP.py
```