

Exp No: 12

Date: 13/10/24

Aim:

a) Implement echo client server using TCP sockets.

client:

```
import socket
import time
```

```
def ping_server (host = '127.0.0.1', port = 12345):
```

```
    with socket.socket (socket.AF_INET, socket.SOCK_DGRAM) as s:
```

try:

```
    s.sendto (b "hello", (host, port))
```

```
    except s.timeout
```

```
        print ('Request timed out')
```

```
if __name__ == "__main__":
```

```
    ping = server()
```

server:

```
import socket
```

```
def start_server (host = '127.0.0.1', port = 12345)
```

```
    with socket.socket (socket.AF_INET, socket.SOCK_DGRAM) as s:
```

TCP/IP

```
s.bind (host, port)
print (f 'UDP server running on
{host}')
```

while True:

```
data, addr = s.recvfrom (1024)
print (f "Received message from {addr}
{data.decode ()}")
```

```
if __name__ == '__main__':
    start_server ()
```

Output:

python server.py

UDP server running on '127.0.0.1': 12345

Received message from ('127.0.0.1', 59292),
hello.

python client.py

Received reply from server: Hello, client

b) Implement chat client server using tcp/udp
sockets:

chat serv.py

import socket

def send ():

port = 12345

host = '127.0.0.1'

with socket.socket(socket.AF_INET,
socket.SOCK_DGRAM) as s:

s.bind((host, port))
while True:

d, addr = s.recvfrom(1024)
print("client", {d.decode()})
a = input("Enter reply")
s.sendto(a.encode(), addr)
if a == "end":
break
exit.

receiver.py

import socket
import time

def receiver2(a):
host = '127.0.0.1'
port = 12345

with socket.socket(socket.AF_INET,
socket.SOCK_DGRAM) as s:

s.sendto(a.encode(), (host, port))
d, addr = s.recvfrom(1024)
print({d.decode()})
while True:

a = input("Enter message")
if a == "end":
receiver2(a)
break

Ques: `recv2(a)`

O/P:-

`python | chat_serv.py`

client { 'hi' }

Enter reply hello

client { 'how are you' }

Enter reply : In fine

`python | recv.py`

Enter message hi
{ 'hello' }

Enter message how
are you
{ 'In fine' }

Enter message .

Result:

Thus the program is executed successfully & the output is verified.

20/11/21