16/10/24 PRACTICAL-12

AIM

(a) Implement eacho client server using TCP/UDP 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. AF-INET, socket)
                                as s.
    s. bind ( (host, port))
  print (f" UDP server running on
     {host} )
```

```
while True :
    data, addr = s.recvform(1024)
point·(f " Recieved message from {add}·
            {data ·decode ()}").
    if name = "main":
    start . server()
```

O/P

```
python server.py
DP server running on 127.0.0.1.12575
Recived message from (127.0.0.1, 59290):
                     Hello

python client.py
Recieved reply from server : Hello, client.
```

(b) Implement chat client server using TCP/UDP sockets:

```
chat . serv. py
import socket
def server():
  port = 12345
  host = '127.0.0.1'
with socket. socket(socket. AF_INET, socket.
                     SOCK_DIAGRAM)as s:
  s. bind((host, port))
  while (True):
  d, add = s.recvfrom(1024)
```

```
print ("Client", {d.decode( )})
  a = input ("Enter Reply").
  s.send to(a.encode(), add)
   if (a== "end").
        break
        exit
  recver ( ).
```

recvr 2 . py .

```
 import socket.
   import time.
   def recv(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"):
      recvr 2(a).
      break.
   else:
      recvr 2(a).
```

O/P.

```
python .\chat - serv.py
client {'hi'}
Enter Reply hello.
Client {"How are you"}
Enter Reply Im fine.

python. \recvr.py
Enter Message hi
{'hello'}
Enter Message How are you
{'Im fine'}
Enter Message.
```

RESULT:

The program is successfully executed and the output is verified.