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# UDP CLIENT-SERVER USING SOCKET PROGRAMMING IN PYTHON

**AIM:**

To implement UDP client-server communication using socket programming in python.

**ALGORITHM:**

SERVER

        1.create a socket using using socket.socket().

        2.bind the socket to an IP and port using bind().

        3.accept client connection using accept().

        4.receive data using recv from().

        5.send response using send to().

        6.close connection.

     CLIENT

        1.create a socket using socket.socket().

        2.send data using sendto().

        3.receive response using recv( from().

        4.close connection.

## CODE:

### SERVER

```python
importsocket

server_socket = socket.socket(socket.AF_INET, socket.SOCK_DGRAM)
server_socket.bind(('localhost', 55555)) print('UDP Server is up
and listening on port 55555')

while True:

data, addr = server_socket.recvfrom(1024) received_msg =
data.decode() print("Connected with", addr) print("Message
Received from Client:", received_msg)

print("Do you want to continue (type y or n):")
choice                                =                         input()
if               choice.lower()                  ==                    'n':
break
server_socket.close()
```

### CLIENT:

```python
import socket

client_socket =socket.socket(socket.AF_INET, socket.SOCK_DGRAM)

server_address =('localhost', 55555) message = input("Enter your
message: ")

client_socket.sendto(message.encode(), server_address)

data,_=client_socket.recvfrom(1024) print("Message Received from
Server:", data.decode())

client_socket.close()
```

**OUTPUT:**

```
D:\>python server.py
UDP Socket Created
Waiting for messages
Connected with  ('127.0.0.1', 60664)
Message Received from Client:  hello udp
Message reply sent to Client!
Do you want to continue (type y or n):
```

```
D:\>python client.py
Enter your message: hello udp
Message Received from Server:  hello udp

D:\>
```

**RESULT:**

Thus,TCP client-server communication was successfully implemented  using socket programming in python