

JAVA PYTHON LAB 11**Supriya Patil****222011038****Aim: To implement of TCP/IP****Batch: B4****Source code: UDP Server**

```
import socket

# Create a UDP socket
server_socket = socket.socket(socket.AF_INET, socket.SOCK_DGRAM)

server_ip = '127.0.0.1' # Server IP address
server_port = 65333 # Server port

# Bind the socket to a specific IP and port
server_socket.bind((server_ip, server_port))
print(f"Server listening on {server_ip}:{server_port}")

while True:
    # Receive data from the client
    data, client_address = server_socket.recvfrom(1024)
    print(f"Received data from {client_address}: {data.decode()}")

    # Send a response back to the client
    response = "Hello, client!"
    server_socket.sendto(response.encode(), client_address)

# Close the socket
server_socket.close()
# Above function will never work because server works infinitely

# Run the UDP server
udp_server()
```

Output:

```
Server listening on 127.0.0.1:65333
Received data from ('127.0.0.1', 65407): Hello, server!
```

Source code: UDP Client

```
import socket

def udp_client():
    # Create a UDP socket
    client_socket = socket.socket(socket.AF_INET, socket.SOCK_DGRAM)

    server_ip = '127.0.0.1' # Server IP address
    server_port = 65333 # Server port

    # Send data to the server
    message = "Hello, server!"
    client_socket.sendto(message.encode(), (server_ip, server_port))

    # Receive a response from the server
    data, server_address = client_socket.recvfrom(1024)
    print(f"Server response: {data.decode()}")

    # Close the socket
    client_socket.close()

# Run the UDP client
udp_client()
```

Output

```
Server response: Hello, client!
```

```
Process finished with exit code 0
```