

19CS406-EX-1 STUDY OF SOCKET PROGRAMMING WITH CLIENT-SERVER MODEL

Experiment : 1

DATE : 09-03-2023

AIM :

To implement socket programming date and time display from client to server using TCPSockets

ALGORITHM :

SERVER :

1. Create a server socket and bind it to port.
2. Listen for new connection and when a connection arrives, accept it.
3. Send server"s date and time to the client.
4. Read client"s IP address sent by the client.
5. Display the client details.
6. Repeat steps 2-5 until the server is terminated.
7. Close all streams.
8. Close the server socket.
9. Stop.

CLIENT :

1. Create a client socket and connect it to the server"s port number.
2. Retrieve its own IP address using built-in function.
3. Send its address to the server.
4. Display the date & time sent by the server.
5. Close the input and output streams.
6. Close the client socket.
7. Stop.

PROGRAM :

CLIENT :

```
# Developed by :YUVARAJ.S
# Register Number : 22008589
import socket
from datetime import datetime
s=socket.socket()
s.bind(('localhost',8000))
s.listen(5)
c,addr=s.accept()
print("Client Address : ",addr)
now = datetime.now()
c.send(now.strftime("%d/%m/%Y %H:%M:%S").encode())
ack=c.recv(1024).decode()
if ack:
    print(ack)
    c.close()
```

SERVER :

```
# Developed by :YUVARAJ.S
# Register Number : 22008589
import socket
s=socket.socket()
s.connect(('localhost',8000))
print(s.getsockname())
print(s.recv(1024).decode())
s.send("acknowledgement recived from the server".encode())
```

OUTPUT:

CLIENT :



```
import socket
from datetime import datetime
s=socket.socket()
s.bind(('localhost',8000))
s.listen(5)
c,addr=s.accept()
print("Client Address : ",addr)
now = datetime.now()
c.send(now.strftime("%d/%m/%Y %H:%M:%S").encode())
```

```
ack=c.recv(1024).decode()
if ack:
    print(ack)
    c.close()
```

```
Client Address : ('127.0.0.1', 55597)
acknowledgement received from the server
```

SERVER :

```
import socket
s=socket.socket()
s.connect(('localhost',8000))
print(s.getsockname())
print(s.recv(1024).decode())
s.send("acknowledgement received from the server".encode())
```

```
('127.0.0.1', 55597)
27/04/2023 11:52:35
```

```
39
```

RESULT:

Thus, the program to implement socket programming date and time display from client to server using TCP Sockets was successfully executed.