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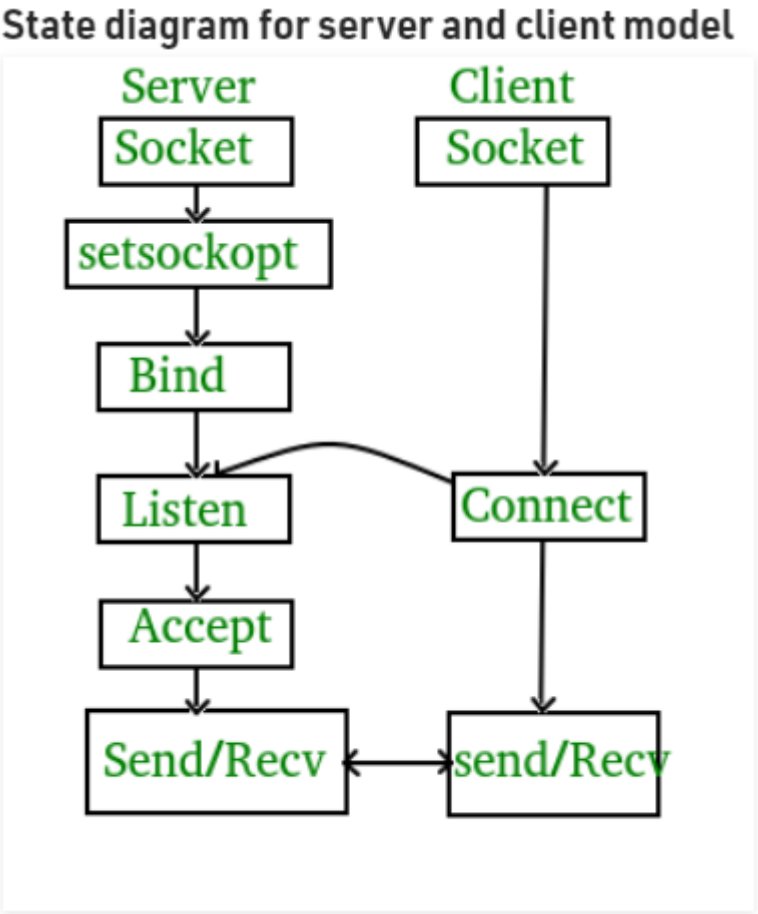
CEL 51, DCCN, Monsoon 2020
Lab 8: Socket Programming

AIM:
To implement Socket Programming and establish a connection between client and server.

THEORY:
Socket programming is a way of connecting two nodes on a network to communicate with each other. One socket(node) listens on a particular port at an IP, while other socket reaches out to the other to form a connection. Server forms the listener socket while client reaches out to the server. They are the real backbones behind web browsing. In simpler terms there is a server and a client.



CODE:

- **server.py**

```
import socket

s = socket.socket()
print("Socket successfully created")
```

```
port = 12345

s.bind(('', port))
print ("socket binded to %s" %(port))

s.listen(5)
print ("socket is listening")

while True:

   c, addr = s.accept()
   print('Got connection from', addr)
   c.sendall(b'Thank you for connecting')
   c.close()
```

- **client.py**

```
import socket

s = socket.socket()
port = 12345

s.connect(('127.0.0.1', port))
print(s.recv(1024))
s.close()
```

OUTPUT:

- **server.py**

```
C:\Users\Akshat\Desktop\College Extras Sem.5\DCCN Lab\Exp8>python server.py
Socket successfully created
socket binded to 12345
socket is listening
Got connection from ('127.0.0.1', 57626)
```

- **client.py**

```
C:\Users\Akshat\Desktop\College Extras Sem.5\DCCN Lab\Exp8>python client.py
b'Thank you for connecting'
```

CONCLUSION:

I understood how to successfully establish a connection between client and server using socket programming.

REFEERENCES:

1. geeksforgeeks.org/socket-programming-python/
2. https://realpython.com/python-sockets/