

COMPUTER NETWORKS

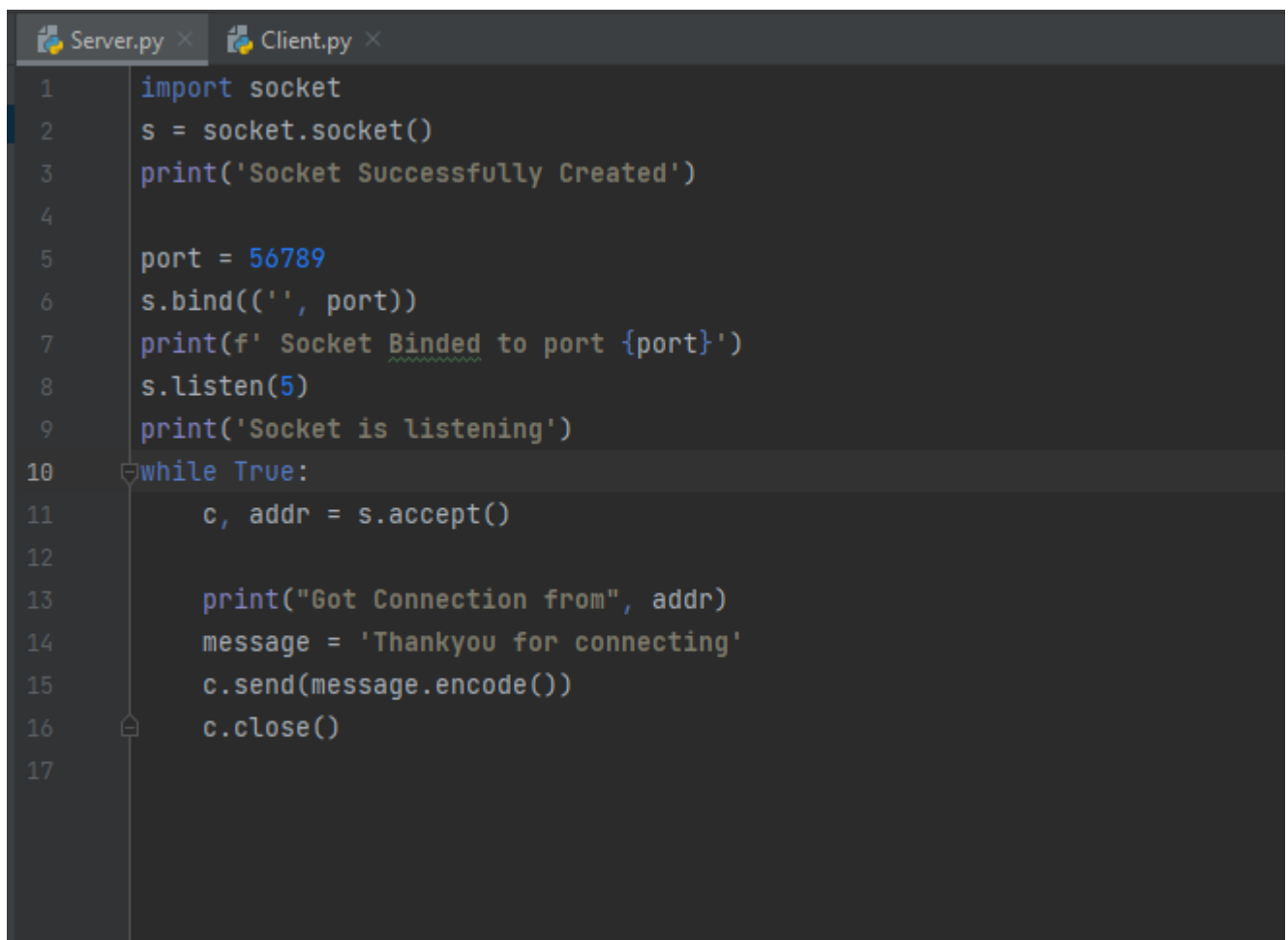
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Assignment 2
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CLIENT-SERVER SOCKET Programming In PYTHON

Steps

- Setting up the Pycharm and creating two Python files named as
- Server.py
- Client.py
- Writing the code of Server.
- Importing the library which Is necessary for this project to run.
- Specifying the port on which the client and the server will communicate.


Server.py

A screenshot of a code editor with two tabs: 'Server.py' and 'Client.py'. The 'Server.py' tab is active, showing the following Python code:

```
1 import socket
2 s = socket.socket()
3 print('Socket Successfully Created')
4
5 port = 56789
6 s.bind(('', port))
7 print(f' Socket Binded to port {port}')
8 s.listen(5)
9 print('Socket is listening')
10 while True:
11     c, addr = s.accept()
12
13     print("Got Connection from", addr)
14     message = 'Thankyou for connecting'
15     c.send(message.encode())
16     c.close()
17
```

Figure: Server Code

Client.py

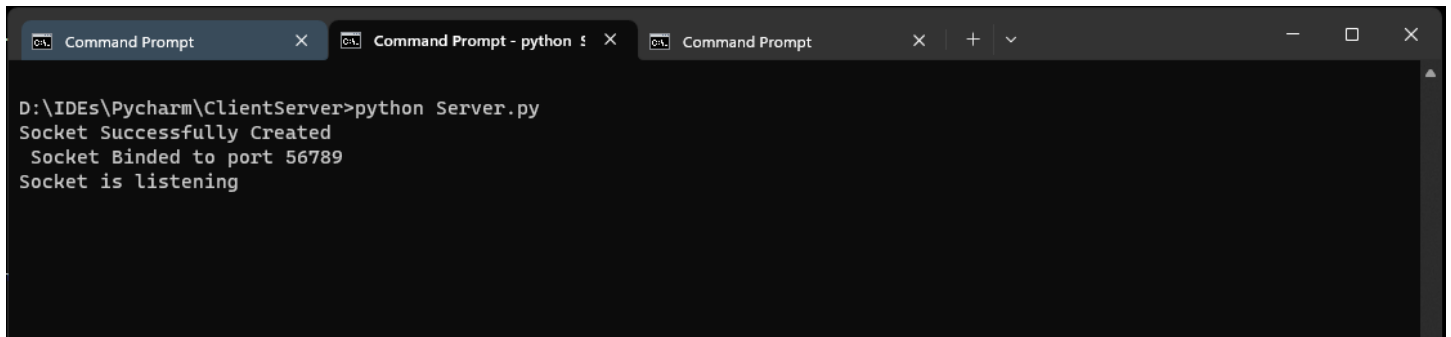


```
1 import socket
2 s = socket.socket()
3
4 port = 56789
5
6 s.connect(('192.168.0.100', port))
7
8 print(s.recv(1024))
9 s.close()
```

Figure: Client Code

NOTE: Now in order to start the communication between the Client and the server we have to open CMD for Client and Server individually and go to the directory where the code is saved or the Python project is saved and run from there.

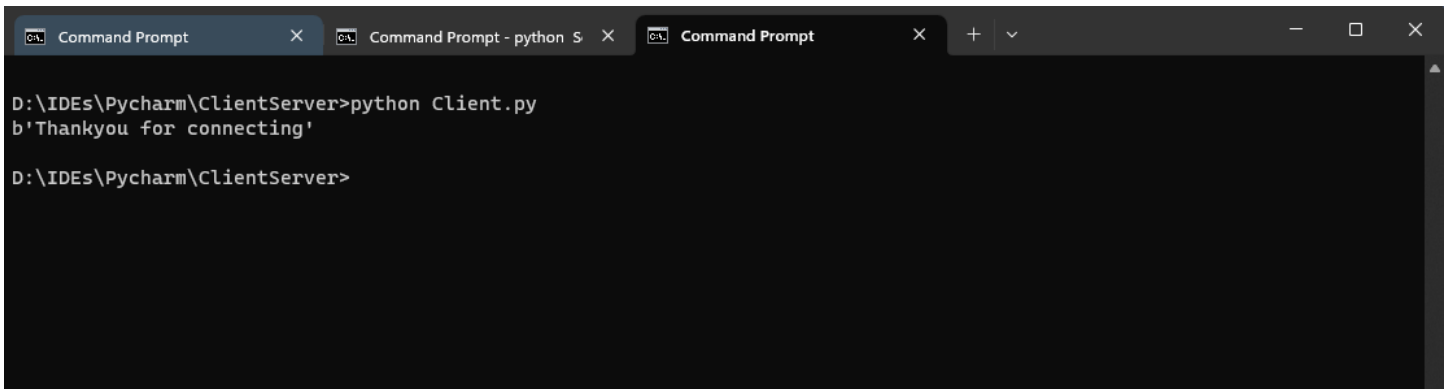
- The server is Starting, it is listening on the port and ready for the connection from the Client.



```
Command Prompt
D:\IDES\Pycharm\ClientServer>python Server.py
Socket Successfully Created
Socket Binded to port 56789
Socket is listening
```

Figure: Server is Starting

- The client accepts and creates the connection on the same port that the Server is running on.

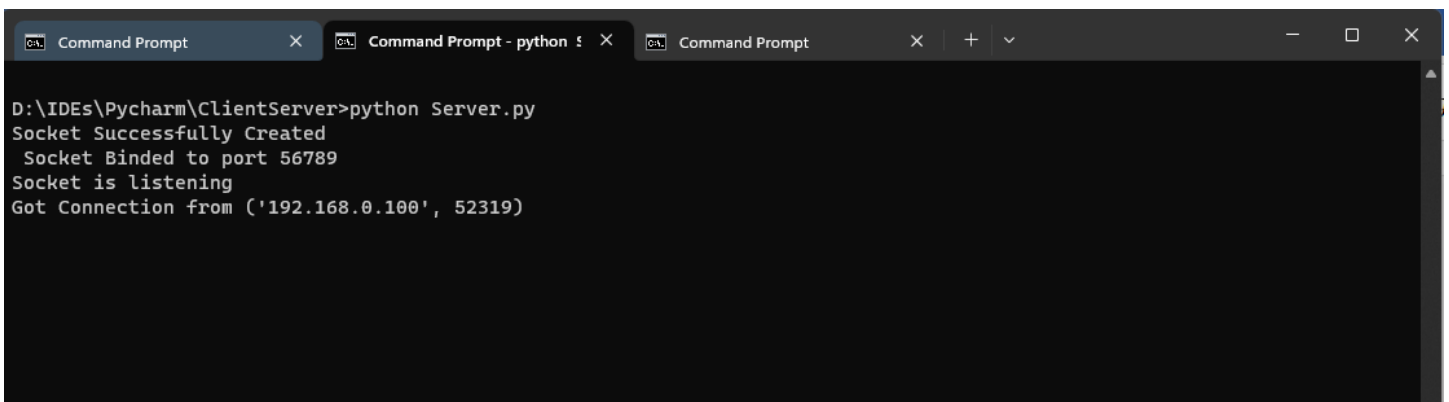


```
D:\IDES\Pycharm\ClientServer>python Client.py
b'Thankyou for connecting'

D:\IDES\Pycharm\ClientServer>
```

Figure: Client making the connection

The output of the Server which shows that the Client and Server are communicating.



```
D:\IDES\Pycharm\ClientServer>python Server.py
Socket Successfully Created
Socket Binded to port 56789
Socket is listening
Got Connection from ('192.168.0.100', 52319)
```

Figure: The Server shows the IP address of the Client with which connection is made