CMPE 207 : Network Programming and Applications

Homework 2: Simple TCP Server

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1. Text content is uploaded onto the server and the server is made open for the clients to connect.

HW2.py > …

```python
import socket
ONE_CONNECTION_ONLY = (True)

s = socket.socket(socket.AF_INET, socket.SOCK_STREAM)
s.bind((socket.gethostname(), 1234))
s.listen(5)
print('File server started....')
while True:
    clientsocket,address = s.accept()
    print(f'Connection from {address} has been established')
    data = clientsocket.recv(1024)
    print(f'Server received {data}')
    with open ("Hello_World.txt",'rb') as file:
        data = file.read(1024)
        while data:
            clientsocket.send(data)
            print(f'sent {data!r}')
            data = file.read(1024)
    print('File sent successfully')
    clientsocket.close()
    if(ONE_CONNECTION_ONLY):
        break
s.close()
```

2. Client connects to the server to read the text content.

```python
import socket

c = socket.socket(socket.AF_INET, socket.SOCK_STREAM)
c.connect((socket.gethostname(), 1234))
c.send(b"Hello from client")
with open("ASCII_ART.txt",'wb') as file:
    print("file open")
    print("receiving data...")
    while True:
        data = c.recv(1024)
        print(f'data={data}')
        if not data:
            break
        file.write(data)
print('Received the file')
with open("ASCII_ART.txt",'r') as f:
    art = f.read()
    print(art)
c.close()
print("Connection is closed")
```

3. Here is the screenshots of the output (text file content)