

Programing Assignment 1: Socket Programing

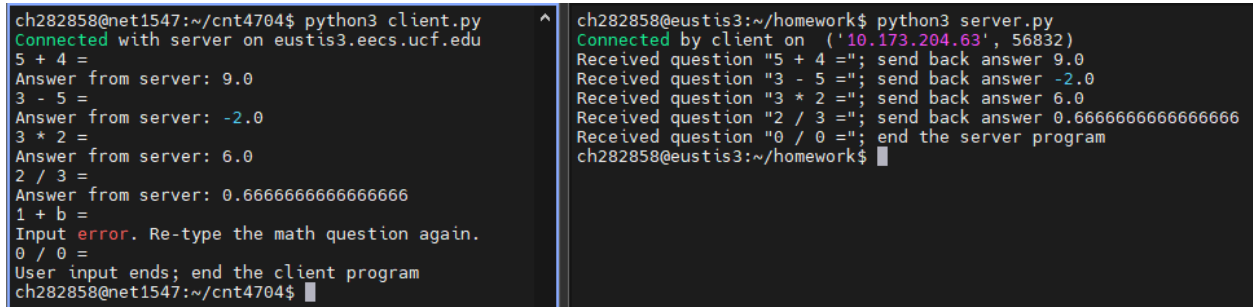
Description:

This program consists of two files: client.py and server.py. When both programs are active, the user will be shown the IP address they are connected to and prompted to enter in a math problem as a single string. The client process will verify that the operands have valid numeric values before sending them to the server. The string is then given to the server, where it is broken down into three parts: operandX, operator, and operandY. The server will verify that the operator is valid before calculating the answer, then sending it back to the client. If an operand or operator is invalid, the user will be prompted to re-enter their question.

Instructions:

1. Upload “client.py” to eustis and “server.py” to eustis3.
2. Enter “python3 server.py” in eustis3.
3. Enter “python3 client.py” in eustis.
4. Begin entering equations in eustis.

Screenshot:



```
ch282858@net1547:~/cnt4704$ python3 client.py
Connected with server on eustis3.eecs.ucf.edu
5 + 4 =
Answer from server: 9.0
3 - 5 =
Answer from server: -2.0
3 * 2 =
Answer from server: 6.0
2 / 3 =
Answer from server: 0.6666666666666666
1 + b =
Input error. Re-type the math question again.
0 / 0 =
User input ends; end the client program
ch282858@net1547:~/cnt4704$

ch282858@eustis3:~/homework$ python3 server.py
Connected by client on ('10.173.204.63', 56832)
Received question "5 + 4 ="; send back answer 9.0
Received question "3 - 5 ="; send back answer -2.0
Received question "3 * 2 ="; send back answer 6.0
Received question "2 / 3 ="; send back answer 0.6666666666666666
Received question "0 / 0 ="; end the server program
ch282858@eustis3:~/homework$
```