

clientSocket.py :-

Code:-

```
from socket import *

def problem_algo(question):
    type,operand1,operator,operand2 = question.split()
    operand1, operand2 = int(operand1), int(operand2)
    if operator == '+':
        return operand1 + operand2
    elif operator == '-':
        return operand1 - operand2
    elif operator == '*':
        return operand1 * operand2
    elif operator == '/':
        return operand1 // operand2

def clientSocket():
    serverName = '127.0.0.1'
    serverPort = 8888
    with socket(AF_INET, SOCK_STREAM) as clientSocketTcp:
        try:
            clientSocketTcp.connect((serverName, serverPort)) # Making a TCP conn to
server
            clientSocketTcp.settimeout(15)
            #welcome message (handshake)
            initialContact = clientSocketTcp.recv(1024).decode().strip()
            print("Server-side Message: " + initialContact) # message from server
            #sending husky name to server
            northeasternUsername = input("enter your username of Husky ID: ")
            greetServer = "HELLO " + northeasternUsername + "\n"
            print("sending... " + greetServer.strip() )
            clientSocketTcp.send(greetServer.encode())

            while True:
                query = clientSocketTcp.recv(1024).decode().strip()
                print("server: " + query)
```

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if query.startswith("DONE"):
    print("Receved Flag: " + query.split()[1])
    break
elif query.startswith("MATH"):
    ans = problem_algo(query)
    res = "ANSWER " + str(ans) + "\n"
    print("sending: " + res.strip())
    clientSocketTcp.send(res.encode())
elif not query:
    print("No data received. Exiting.")
    break
```

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clientSocketTcp.close()
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except timeout:
    print("connection timeout")
except ConnectionRefusedError:
    print("500 internal server error i think server is not running")
except Exception as e:
    print("Error: " + e)
```

```
if __name__ == "__main__":
    clientSocket()
```

Result:-

```
server: DONE
3F823E7CC6958457B008E2E3E2388F67FF4AFCBE13960AEBCFE4E4C6D5C9CD05
```

```
Receved Flag:
3F823E7CC6958457B008E2E3E2388F67FF4AFCBE13960AEBCFE4E4C6D5C9CD05
```

