UDP
CALCULATOR

SERVER:-

```
from socket import *
import socket

serverName =
'Localhost' serverPort =
12456
serverSocket = socket.socket(socket.AF_INET, socket.SOCK_DGRAM)
serverSocket.bind(('localhost', 12456))
print('The server is connected')

while True:
   number1, clientAddress = serverSocket.recvfrom(2048)
   print('Number1 received:', number1)

   number2, clientAddress = serverSocket.recvfrom(2048)
   print('Number2 received:', number2)

   number3 = int(number1.decode()) * 2 number3 =
   str(number3)
   serverSocket.sendto(number3.encode(),
   clientAddress)

   number4 = int(number2.decode()) * 3 number4 =
   str(number4)
   serverSocket.sendto(number4.encode(),
   clientAddress)

   operator, clientAddress = serverSocket.recvfrom(2048)
   operator = operator.decode()
   print('Received operator:',
   operator) print('Calculating..')

   if operator == '+':
      answer = int(number1.decode()) + int(number2.decode())
   elif operator == '-':
      answer = int(number1.decode()) - int(number2.decode())
   elif operator == '/':
      answer = int(number1.decode()) / int(number2.decode())
   elif operator == '*':
      answer = int(number1.decode()) * int(number2.decode())

   answer = str(answer)
   serverSocket.sendto(answer.encode(), clientAddress)

serverSocket.close()
```

CLIENT:-

```
from socket import *
import socket

serverName = 'localhost'
serverPort = 12456
clientSocket = socket.socket(socket.AF_INET, socket.SOCK_DGRAM)

print('Target IP:', serverName)
print('Target Port:', serverPort)
print('\n')

number1 = input('Input number1: ')
number2 = input('Input number2: ')
operator = input('Select an operator: (+ / * -) ')

clientSocket.sendto(number1.encode(), (serverName, serverPort))
clientSocket.sendto(number2.encode(), (serverName, serverPort))
clientSocket.sendto(operator.encode(), (serverName, serverPort))

number3, serverAddress = clientSocket.recvfrom(2048)
print('Sent back number 3:', number3.decode())

number4, serverAddress = clientSocket.recvfrom(2048)
print('Number 4 sent back:', number4.decode())

answer, serverAddress = clientSocket.recvfrom(2048)
print('Your result:', answer.decode())

clientSocket.close()
```

OUTPUT:-

SERVER:-

```
The server is connected
Number1 received: b'8'
Number2 received: b'5'
Received operator: +
Calculating..
```

CLIENT:-

```
Target IP: localhost
Target Port: 12456


Input number1: 8
Input number2: 5
Select an operator: (+ / * -) +
Sent back number 3: 16
Number 4 sent back: 15
Your result: 13
```