

MultiMediaCommunicatino HW2

계산기 서버, 클라이언트 프로그램

Server 역할:

- (1) Client로부터 여러개의 숫자와 연산자(operator) 정보를 입력 받는다.
- (2) Server는 전달받은 숫자를 바탕으로 덧셈, 뺄셈, 곱셈을 계산해서 그 결과를 Client에게 전달한다.
(ex) Client로부터의 입력: 3, 5, 9, + => Server는 3+5+9 결과값을 client에게 전달
Client로부터의 입력: 4, 3, 2, - => Server는 4-3-2 결과값을 client에게 전달
- (3) 필요 시 client프로그램은 피연산자의 개수를 묻고 입력할 수 있도록 한다.
(ex) Client로부터의 입력:
operation count?: 3,
operand 1: 3
operand 2: 5
operand 3: 9
operator: +

위의 역할을 수행하는 계산기 Server와 Client 프로그램을 TCP/IP 프로그래밍 예제
(강의자료에 있는 echo server, echo client 프로그램)를 참고하여 작성하여 제출하시오

1. In C language (네트워크 경고 시 액세스 허용 버튼을 눌러준다.)

> Client

```
cmd 명령 프롬프트
C:\tctest\ccfolder>gcc kjh-13184322-calcClient.c -o kjhClient -lws2_32

C:\tctest\ccfolder>kjhClient 127.0.0.1 8888
connected.....to server
START! Thank you for using my service.
This is trial 1
How many numbers do you want to calculate? : 5
1 / 5 's : 1
2 / 5 's : 2
3 / 5 's : 3
4 / 5 's : 4
5 / 5 's : 5
choose one of three (+,-,*) : +
result : 15
END.....you have 2 trials left..
C:\tctest\ccfolder>
C:\tctest\ccfolder>kjhClient 127.0.0.1 8888
connected.....to server
START! Thank you for using my service.
This is trial 2
How many numbers do you want to calculate? : 6
1 / 6 's : 100
2 / 6 's : 9
3 / 6 's : 8
4 / 6 's : 7
5 / 6 's : 6
6 / 6 's : 5
choose one of three (+,-,*) : -
result : 65
END.....you have 1 trials left..
C:\tctest\ccfolder>
C:\tctest\ccfolder>kjhClient 127.0.0.1 8888
connected.....to server
START! Thank you for using my service.
This is trial 3! and this is the last chance.
How many numbers do you want to calculate? : 4
1 / 4 's : 8
2 / 4 's : 4
3 / 4 's : 2
4 / 4 's : 1
choose one of three (+,-,*) : *
result : 64
END... Have a nice day! there is no more chance.
C:\tctest\ccfolder>
```

> Server

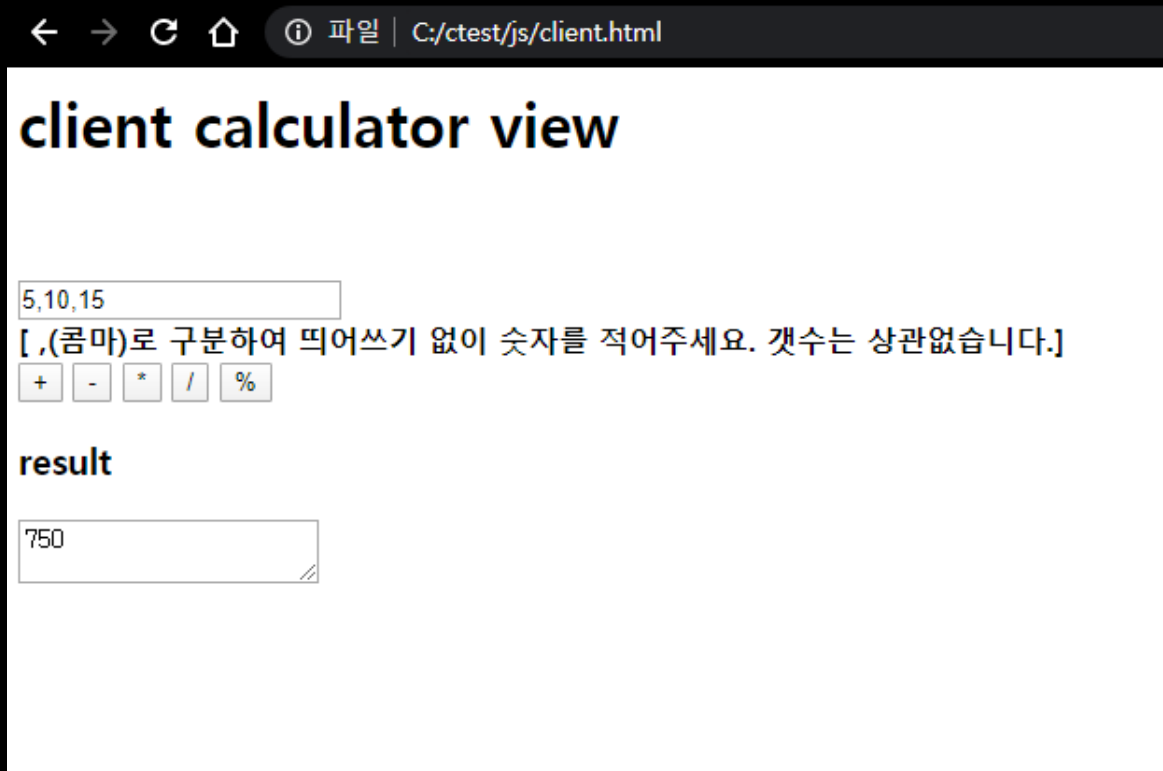
```
cmd 명령 프롬프트
C:\tctest\ccfolder>gcc kjh-13184322-calcServer.c -o kjhServer -lws2_32

C:\tctest\ccfolder>kjhServer 8888
waiting.....(3 clients available)....
connected to client 1 !!! .....
..... terminated.
waiting.....(2 clients available)....
connected to client 2 !!! .....
..... terminated.
waiting.....(last client)....
connected to client 3 !!! .....
...terminated completely.

C:\tctest\ccfolder>
```

2. In Javascript (네트워크 경고 시 액세스 허용 버튼을 눌러준다.)

> Client



> Server

