

Creating a Calculator in C++

It's easier than you think!



“Making games is easier than you think ...”



Steps

- Environment setup
- Writing text to the console
- Capturing user input
- Putting it all together
- Build and run

Environment setup

- Install Xcode, Visual Studio or any other text editor
- That's it. That's the only step.



Writing text to the console

```
#include <iostream>

int main() {
    std::cout << "Hello, world!\n";
}
```

Capturing user input

```
#include <iostream>
```

```
int main() {
```

```
    std::string name;
```

```
    std::cout << "What is your name? ";
```

```
    std::cin >> name;
```

```
    std::cout << "Hello " << name << "!\n";
```

```
}
```

Putting it all together

Getting the first number

```
#include <iostream>

int main() {

    std::cout << "Enter first number: ";

    float firstNumber;

    std::cin >> firstNumber;

    // ...

}
```


Getting the operator

```
std::string mathOperator;  
std::cout << "Enter operator: ";  
std::cin >> mathOperator;
```

Getting the second number

```
std::cout << "Enter second number: ";  
  
float secondNumber;  
  
std::cin >> secondNumber;
```

Calculating the result

```
float result = firstNumber;  
  
if (mathOperator == "+") result += secondNumber;  
else if (mathOperator == "-") result -= secondNumber;  
else if (mathOperator == "/") result /= secondNumber;  
else if (mathOperator == "*") result *= secondNumber;  
else throw "Invalid operator.";
```

Displaying the result

```
printf("The result of %f %s %f = %f\n",  
      firstNumber, mathOperator.c_str(), secondNumber, result);
```

Build and run

```
$ g++ -std=c++17 calculator.cpp -o calculator  
$ ./calculator
```

That's it!



See? It *was* easy!



To see how you can make it more complicated, check out the repo:

https://github.com/neogeek/cpp_calculator