Poznan University of Technology

Object Oriented Programming

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Object Oriented Programming
Agenda

- What have I created?

- Did I have any problems?

- Did I learn anything new?

- What could be improved?

What have I created?

Object Oriented Programming
A calculator calculator in C++

It is very small, foucsed on usability

A very fleek interface with modern qt-like design

Using raylib as the UI manager (yes, it's an library to make games but it also works for UI)

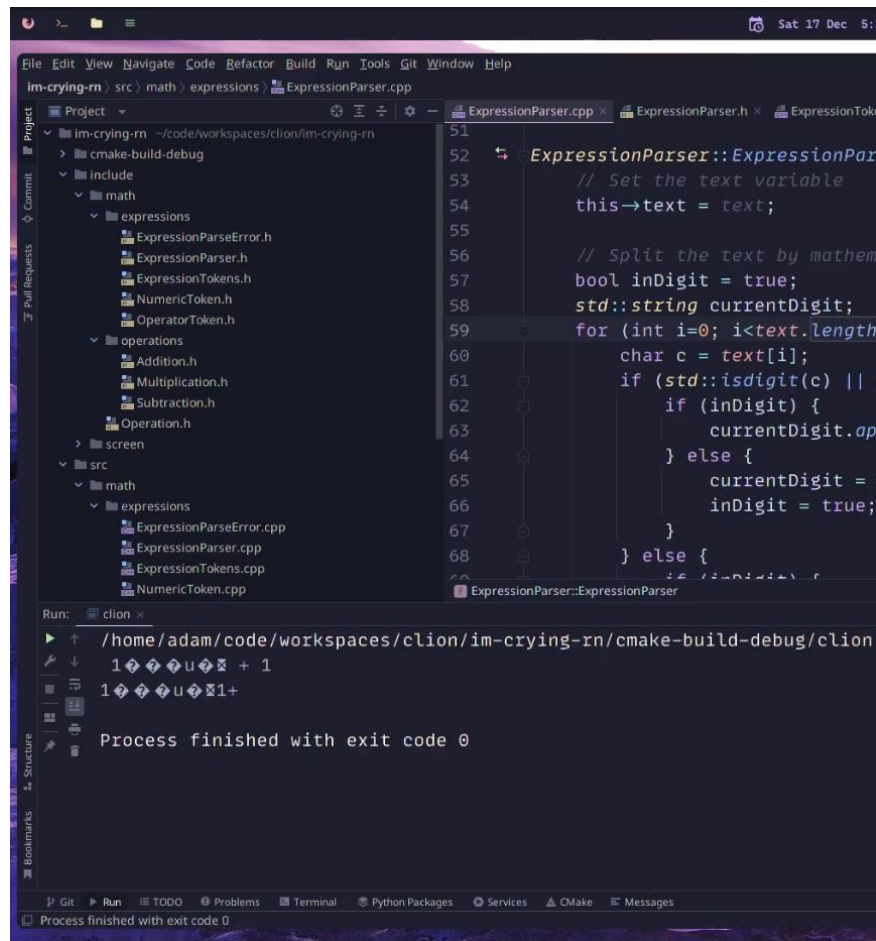Why calculator? Because it's easy

Did I have any problems?

Problems that I have encountered

- Project structure
- Scraping things and changing functionality to feed new needs
- Pointer arithmetic

The solutions that arose

- Better planning and a plain old piece of paper
- Learning how to move in a project and what files are needed for what (and are they really needed?)
- **Skill issue**

Did I learn anything new?

Object Oriented Programming
And how i formed an opinion on C++

This project allowed me to program in C++ for a bit and make my mind up about the language and if I really want to continue working in it (ever). The main problems that I had were that things that shouldn't require deep knowledge do cause problems if you are not careful or don't know how to use it (I had problems especially using string iterators and string streams).

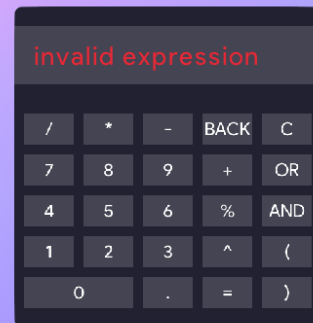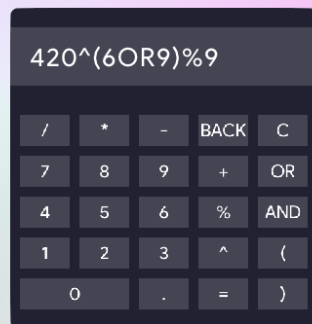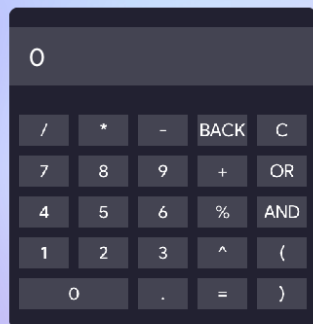# What can be improved?

Object Oriented Programming
Improvement options for the project

Ways that I thought of to improve the project

- More human-like expressions (like leading `-` signs and more)

- Optimizing the tokenization of objects (very long function with nesting is not ok)

- Improving the style of the code (using a google C++ style guide for example)

Photos of the project (cute)

Calculator 1

```
0

/      *      -      BACK   C
7      8      9      +      OR
4      5      6      %      AND
1      2      3      ^      (
       0      .      =      )
```

Calculator 2

```
420^(6OR9)%9

/      *      -      BACK   C
7      8      9      +      OR
4      5      6      %      AND
1      2      3      ^      (
       0      .      =      )
```

Calculator 3

```
56.2-94.63

/      *      -      BACK   C
7      8      9      +      OR
4      5      6      %      AND
1      2      3      ^      (
       0      .      =      )
```

Calculator 4

```
invalid expression

/      *      -      BACK   C
7      8      9      +      OR
4      5      6      %      AND
1      2      3      ^      (
       0      .      =      )
```

Questions?

Fin