Lab 6: IDEs

Nathan Jarus

June 21, 2017

Introduction

This lab will give you some experience configuring and using IDEs. The starter code is available in a git repository (check your email for the link). You can get the git repository with `git clone`.

Problem $\sqrt{-1}$: Clean Up After Yourself

The repository for this lab does not include a `.gitignore` file. As you work through this lab, you should create one that ignores the junk you don't want in a git repo: compiled files, editor backup files, etc. Use `git status` to see what sorts of files Geany and Code::Blocks create.

Note: you *do* want to include the project files you create in your repository.

Problem 1: Geany

1. Create a project for the assignment.

2. Import the existing files into the project.

3. Build and run the code. (Remember, you need to tweak the build settings to work correctly.)

4. Implement the `combination` function in `funcs.cpp`. The combination operator, most commonly known as part of the Binomial Theorem but also widely useful in statistics and combinatorics, is defined by the following operation:
$$\binom{n}{m} = \frac{n!}{m!(n-m)!}$$

   The combination operator is also used to generate Pascal's Triangle, which is what we will be doing in this assignment.

5. It'd probably be good to write a bit of code in `main` to make sure your function works.

6. `git add` your Geany project file and your changes to `funcs.cpp` and `main.cpp`.

7. `git commit` your changes.

Problem 2: Code::Blocks

1. Create a project for the assignment.

2. Import the existing files into the project.

3. Build and run the code. (Don't forget to turn on `-Wall`!)

4. Use the `TrianglePrinter` class to print out the first 7 rows of Pascal's Triangle. `add` will add a number to the current row and `newrow` will start a new row.

   The first row of Pascal's triangle is $\binom{0}{0}$. The second row is $\binom{1}{0}$, $\binom{1}{1}$, and so on and so forth.

5. `git add` your Code::Blocks project file and your changes to `main.cpp`.

6. `git commit` your changes.

Epilogue

`git push` your committed changes to gitlab so that I can grade them.