C++2 Final

List of items used to make the program

1. Opening screen with a description of the application and instructions
2. Menu for the user to choose options
3. 4 classes
4. Inheritance (minimum 2 derived classes)
5. Polymorphism
6. Encapsulation
7. Templates
8. Design Pattern(s) (must be described and documented) – used multithreading to create a set of voids to insert into a void to run that thread.
9. Boost Library

Project Description

This project starts off by asking the user for their name. After they give their name it introduces what the program is and how it works. Then they are asked to input a number between one and five. Depending on what number they choose they will get a different void each time. The first void is a create your own character style of activity. It asks for the player input to get their character health, power and magical power. They are then given a premade helper along with a premade boss and minion. They get to decide themselves whether they have won the battle or not. After that they can choose to go back to the menu and have a chance to either redo the activity or do another one. The second void is one that uses multithreading to ask the user various questions like the year this program was made and various others. Can be added to in the future with more threads included. The third void is one that takes you to a section that uses templates to take the player input numbers to run them through a template with addition, subtraction, multiplication and division and outputs that number to the user. The fourth void takes the player to a random number generator. You must guess the number that is randomly generated by a boost function. After that it will run through three ai’s that each have a different search function then each other. After that it displays how many tries it took each one to find the number. The one with the lowest score is the winner. The last option will quit the program allowing the user to exit the program. The program also has a function where when it changes to a different screen the screen clears the old screen allowing the new data to be posted in the output.