**Project 10 Documentation**

The purpose of this program is to build my understanding of templates and how they function and their functionality. For the project, we used templates for an ArrayStack and NodeStack, which we did a Datatype template, meaning that any type of DataType class objects that may be passed through each of the array and node classes. The functionality of templates is to be able to write functions that normally would require multiple functions because it requires to implement with different types of variables(example: int, double, etc.). With these templates, you now have the ability to create one function which can work with different variables. If a double were passed through a template function/class, it would convert all the template variables “T” to the type specifier which is needed in order for the function to work.

The biggest problem I had working with this was definitely, once again, the node class. ArrayStack was almost exactly the same as the last project, so it was a simple copy paste of logic. NodeStack had some minor changes, one because of the difference of variables, and as well as some slightly different implementation for certain functions. Although it wasn’t too difficult, that was the most challenging.

If I had more time to work on the project, I would attempt to create a much cleaner system and more elaborate test driver, as my test driver is fairly straight forward and simplistic with no user input and just raw numbers within the main, as I felt unnecessary in the test driver for this project.