Matthew Gale

COSC 603

February 24, 2016

Project 1 Task 5

I learned some interesting things from this project. The first is comments, well define variable names and documentation is very useful. Without the comments in the Fortran77 program, converting it to any other language would had been difficult. The well define variable names were useful to follow the logic of the code even with the “goto” statements. What helped the most was probably the documentation and the flow chart that came with the program. When everything comes together with well written comments, variable names and documentation, changing a program to another language is not that difficult.

The most valuable thing that I experience from this code was probably the documentation. The paper had two main aspects that made it very useful, the flow chart and the formulas. The flow chart was useful for me to convert the program from Fortran77 to Java because it provided an excellent basis to create pseudo code and an outline line for the program. It clearly stated where and what the “if” statements should be and what the program should be doing. Second the formulas were useful because seeing a formula written with the exponents and logs, is easier to understand than how Fortran77 showed it. Javadocs and JAutodocs made adding comments in to the java code a lot easier because it adds outlines in front of the functions and variables. Also it generated a document that if I was calling the “fire danger” class everything that was public, or could be, was well documented.

The second useful thing in the program were the comments. The documentation gave a great understanding on the flow of the program but the comments explain why the program jumped around. Because Fortran77 used a lot of “gotos” and labels, keeping everything straight in my head was a little difficult but with the comments I was able to understand the code. Also, the code seems to be an updated version because there were more “if” statements than there were in the flow chart. Javadocs does not add comments in the middle of the code to explain why the “if” statement is there or why you are calling a function. The creator of the fortran77 code did.

Variables were the least important part I found in this program because the arrays were one letter variable. Everything else had a good name and help tremendously in following the code. If everything was “x”, “y”, “z” etc. the code would has been very difficult to follow. With Javadocs, however, since they added comments in front of the variables I did not have to spell out every little detail about the variable in the name.

My experience with converting the Fortan77 code in to java was a pleasant one because of the documentation and beautiful code. Since the flow chart gave me a good starting point and the comments filled in any missing holes in the documentation this task was fairly easy to accomplish. With Javadocs I hope that in the future is someone were to convert the Java code into something new language, it would be just as seamless.