Code Reading

Fall 2016 Reading # 4 – Leap Year

Dr. Gurka Report

Name: Manoj Vasa

Time: 45 minutes

Assigned: Monday, August 29

Due: Wednesday, August 31, beginning of class

Note: this report is all about your process when reading; there are no code questions.

Questions.

1. How close would you say you were to understanding the program as a whole before you worked with a classmate or used other references?

I couldn’t completely understand the code until further discussion with other classmates. I understood the logic of the operations and the purpose of the arrays, but couldn’t quite relate the results array with the results array index calculation before collaborating with a classmate.

1. Did you work with a classmate? Who was it (or who were they)? Specifically, what was the collaboration useful for?

I worked with Aaron and Joey to discuss what we understood about the code so far. It was helpful to work with others since we all had some information that the others didn’t to understand the code. It became easier to put out all we knew and work with our combined information. I had some specific questions about the operations being done with the yearAsLong variable in the results array that were answered by my classmates. We learned that the operations in the brackets next to results was actually being used for indexing the elements in the results array.

1. Did you run the code? Was that helpful? What data did you use to test the program and improve your understanding?

Yes, I did run the code. It proved helpful to try inputting different years to see what the results would be. I tried years that were light years first to see how the program would run. After seeing multiple times that the results were wrong I understood it had something to do with the true or false statements in the results array.

1. What formatting changes did you make to the code to improve readability? Was it helpful?

I added some space between some line and repositioned some curly brackets to know where some of the code began and ended. I also spaced out the mod calculations and separated them from the cluster of parentheses so I could read those operations better. It was very helpful to space out the code.

1. What other techniques did you use to understand the code?

I traced the code by hand to see if I could see the process of the code more clearly.

1. What was hardest to understand about this code? Why?

I couldn’t understand the purpose behind the way the results array was structured. It seemed odd to have ordering of true and false Boolean expressions in an array.

1. What was easy?

Understanding the calculations being done with the mod and shifting was easy to understand. It was straightforward and simple in terms of readability after the first glance.

1. Were you able to find the bug on your own? How? If not, did you have a general idea where it might be? And do you now understand the bug and how to fix it?

Yes, I was able to detect the bug upon further analyzing the code on my own. I kept running numbers that were leap years to seen what index the code would calculate. This lead me to check the positioning of the Boolean statements in the results array and the index of that array that was called in the calculation. After seeing that the location of the true didn’t match the index number calculated, I changed the ordering of the results array.

1. What else would you like to tell me about your reading of this code?

As I was reading the code I felt that some of the code was just unnecessarily split into separate lines. The print statements at the end of the code were an example of this. These lines felt hard to read before fixing this error.

1. Any final questions about the code or the exercise?

Why go through the trouble of exceptions to display if a year is a leap year or not a leap year? It just seems excessive.

With the report, hand in your updated version of the code, in which you’ve made changes for better readability. Highlight your changes, and include your name in a comment.