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IPC144 FINAL PART 2 REFLECTION PAPER

I.

I believe this program can greatly benefit from modular programming since it has a lot of functions and to compile them in one code would be extremely confusing and would lead to a lot of error which may be hard to find since the code would be too long and to read through lines and lines of code only to find one problem would be really tedious and exhausting. We decided to make this program more modular by making each function separate because of the above stated reasons. We did this by making a function for the stored data about the cyclists, a function for the options of the code, and a function that accepts input from the user.

II.

What we did to reduce the repetitiveness of the categories in the code is that we reused the categories and differentiated them using the categories S, M, and L. by using this we do not need to re-type the same text for each categories, how this works is that the code will ask for the category the user wants to see, and by using the input variable which is a variable in the void pointer we used called “checkCategory, the code will determine whichever category the user wants and show it to the user. Another technique you can use to do this is by using an array of struct, but I think that this is less efficient because the code will be longer than the void pointer we used and will be more tedious than the method we used.

III

The readFileRecord() function determined when the end of line (record) had been reached because the code had the correct number of newline characters (\n) in it, and to figure out the issue regarding the rider who withdrew from the race, that problem can be solved by just making the “withdraw” field blank if the rider did not withdraw from the race, and have the character “w’ if the rider did opt to withdraw. Another technique that can be done is to make a new field that has an input as to whether or not the rider did in fact withdraw from the race or not, which I believe would be easier because you no longer have to worry about having different number of fields. I found it difficult to do the instruction given in the final assessment, because it asked to include a text file, and we were not used to use text file because we always typed in the data we need in the code. But after reading the notes, we figured out how to read text files and I think that it is a better way of representing files than typing the data in the code.