Criterion A: Planning

Athletics COVID-19 spreadsheet scanner

The scenario

The client, Mr. xx is a teacher and athletic director at a United States high school. He is in charge of managing all of the students and their clearance to go to practice while COVID-19 is in effect. His solution to this is a google form that students have to fill out in order to be allowed to attend practice . This google form allows him to then put all of this information into a spreadsheet and export it to a .csv file (appendix 1). His problem is that because of the amount of athletes filling out this form multiple times each, there are over 5,000 lines. This makes it very difficult for him to properly search for an athlete and find the last date they attended practice, which he needs to do when finding out who could be affected by a positive COVID-19 test.

Initial consultation with client

I went to Mr. xx to talk to him to see if he could use a program to assist him with his athletic director duties and this is what he told me about. He explained that a program that would allow him to find the last date a specific athlete attended would be extremely helpful.

I talked to my Computer Science teacher and he said that this would be a good idea, as we had been learning how to construct a file scanning program just the week before.

Rationale for the proposed product

I decided to use java to solve this problem for multiple reasons. First of all, Netbeans, the Java development kit I used, is completely free. In addition, because of its object oriented nature, I could turn every athlete and their answers to the forms into an object and store them easily while still being able to access this information. Furthermore, a java application offers a volatile solution, which is a good thing in this case because it allows for the sensitive data to not be stored in the java program, so if the client deletes the file it is scanning from, the program is not a privacy concern on it's own. Additionally, I decided to use java because I am learning it at school, it's simple to make a functioning file, java is on most computers, the swing editor allows for easy Graphical Interface creation and editing, and it allows me to add new features easily with object oriented programming. In addition, the feature in java to split a value by a delimiter allows me to easily get the information from a spreadsheet exported to a .csv file.

Success Criteria

1. Program will have an athlete object that can store the needed values
2. Program will be able to scan a .csv file in the correct format and return the values from it
3. Program will have a search and sort feature that will allow the program to take the file, search for what it needs, and then sort that information
4. Program will have a functioning user interface that allows the user to get from feature to feature
5. Program will have a file explorer to get the location of the file that will be searched
6. Program will have functioning search by name, search by name list, and search by date features that allow the user to input a name or date and get the correct output
7. Program will inform the user with messages when an athlete cannot be found and if an incorrect file is chosen

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