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1/22/2013
CS 163

Assignment #1

1) Success

Algorithm to be successful in this class
1_ Stay up to date on the lectures
1a_ Set aside time to the lectures throughout the week and especially the weekend\
2_ Take the quizzes in an appropriate fashon
2a_ Ensure that there is sufficient time set aside to take the quiz
2a i_ Spend time analyzing incorrect answers and determining the appropriate answers
2a ii_ Ensure that the correct answer is know
3_ Stay up to date on the homework
3a_ Read the syllabus to understand due dayes
3b_ Ensure that the homework is well understood
4_ Apply the knowledge so that it is best understood
4a_ Do the practice labs to ensure that the information is well understood

2) Style

I took a lot at my App Organizer program from CS162, and found it to be moderately well documented. Now that I have taken a second look, there are definitely things that I would have done to make it much more readable. I took a more specific look at the main() function for thie assignment. Three things that could have been done to make the program much more readable included: a consistent form of indentation for comments, a comment that distinguished the ending from the ‘main’ program, and a comment that described all of the actions and the variables. The last addition was very important and it is very evident in the after comparison on the following page when I implemented these changes.

Before:

```
68 //Main Program
69 int main()
70 {
71   //Variables
72   item app[NUM_APPS];
73   folders folder[NUM_FOLDERS];
74   int num_apps = 0;  //The number of apps
75
76 //Setup
77   //Makes  sure that there is a file to read from, even if it is empty
78   ofstream write;
79   write.open("apps.txt", ios::app);
80   write.close();
81
82   read_from_file(app, num_apps);
83
84   generate_folders(folder, app, num_apps);
85
86   welcome();
87
88 //Main program
89   while(manager(app, num_apps, folder));  //Main manager loop
90
91   write_to_file(app, num_apps);  //At the end write (overwriting) the whole file
92
93   return 0;
94 }
```

After:

```
68 //Main Program
69 int main()
70 {
71   //Variables
72   item app[NUM_APPS];           //Creates an array of classes that manages the apps
73   folders folder[NUM_FOLDERS];  //Creates an array of folders to manage the folders
74   int num_apps = 0;             //Stores the number of apps
75
76 //Setup
77   //Makes  sure that there is a file to read from, even if it is empty
78   ofstream write;                   //Creates an output filestream write function
79   write.open("apps.txt", ios::app); //"Opens" a file, and creates it if it does not exist
80   write.close();                    //Closes the output variable
81
82   read_from_file(app, num_apps);    //Reads in the current apps from the file (if there are any)
83
84   generate_folders(folder, app, num_apps);  //Generates the folders from the read in apps
85
86   welcome();                        //Welcomes the user to the program
87
88 //Main program
89   while(manager(app, num_apps, folder));  //Main manager loop, loops until the manager loop tells it to stop
90                                           //by returning a false variable.
91 //Ending
92   write_to_file(app, num_apps);           //At the end write (overwriting the original) the whole file
93
94   return 0;
95 }
```

3) Ethics and Security

From my own experience, I have noticed that over time with the wide prevalence of technology in my life (smartphone, laptop and others) I have taken for granted that most of the time that I access the internet it is through a secure private network or a cellular tower, that I have to extremely careful the rare times that I do use unsecured Wi-Fi. With a huge increasing number of public hotspots, with much more than 220,000 in the U.S., what we transfer over unsecured networks can become even more susceptible to interception. In a study referenced in a CBS news article, “security experts estimate hackers can easily take in $1,000 worth of data from just one hacked computer”. The wide amount of important data that can be intercepted over open wireless channels is astounding and intentionally extremely damaging. This information ranges from credit card numbers to Social Security numbers, which can be immensely important and valuable. The threat when using a wireless network, while not immediately widespread, is becoming even more prevalent as the number of open wireless networks greatly increases.

Work Cited (for question 3)

"Dangers of Free Public Wifi." *CBSNews*. CBS Interactive, 8 July 2012. Web. 23 Oct. 2012. <http://www.cbsnews.com/2100-501083_162-6657962.html>.