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Software Development I

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### Final Write Up

My final code is not close to what I planned to do. I tried coding in files, timers, and videos. I failed doing all of these. I got close to succeeding in creating a timer but it would not operate correctly to correspond with my program. I also wrote code display image files but I unsuccessfully displayed any image files. I did successfully create several different GUIs and loops to run through the program several times. I also wrote code to keep track of what round the user was on and code to end the loop once all five rounds were completed.

When I wrote code for the timer the timer would run but I could not get it to stop in 10 second intervals or 5 minute intervals. It was only a running clock on the command line. I tried getting a running clock displayed in my JFrame but I was unsuccessful. When I created a file class I could not get the program to recognize my file. I changed how saved my file to several different ways but I was still unsuccessful. I also changed my code to try to fix the problem but it only created more problems in my code.

In my final code I created a JLabel, JPanel, JButton, and JOptionPanes. I added the JLabel and the JButton to the JPanel so they could be displayed. The JLabel changes from blank to a command to "Restart". The JButton is a button that can be pressed to start and restart. It is displayed in the JPanel. The JOptionPane is less complex than GUIs but I found it useful for the code I was writing. I used the JOptionPane to display what round the user was on and what exercise they should do for ten seconds.

This program is the outline of a app for speech language pathologists and their clients. It gives flexibility to a client's therapy schedule. Not having consistent therapy does not help the process of recovery or prevent further damage to facial muscles. The client does not need to be with their therapist to do their exercises or therapy. That saves the client money and time. It also helps the therapist to give the client an exercise schedule that consists of multiple therapy sessions without even coming into the therapist's office.

My motivation for this program is to give flexibility to a patient's therapy schedule and to help achieve a rapid recovery. My goal is to eventually be able to make this code into a app. I would not be able to use java for the app but, I would like to use this program as a frame work for future work. This paper will provide a description of my project and all of the parts needed for it to be successful. As well as the requirements for the program, other similar apps, and a user manual.

A brief system description would include one of the most important parts: the loop keeping track of what round the user is on. The loop controls what is displayed for the user. During those 5 rounds the user will be prompted to do ten exercises for ten seconds each. After the user does the exercise for ten seconds they click the button displayed to go onto the next exercise. After all of the rounds are completed the user can either restart or terminate the program. Some other works would include apps like "Small Talk Oral Motor Exercises" which has pictures, videos, and descriptions pop up to show examples of the exercise. It is designed for people with weak mouth, tongue, and lip muscles or poor oral coordination. The app helps strengthen the oral musculature, which is very similar to the program I am coding. My code differs from these generic apps because it is specially designed to each client and times each exercise. It can also be coded to specifically fit the patients needs.

This program is relatively simple and very user friendly. Once the program starts exercise numbers pop up and will correspond to a specific exercise. Once the exercise is completed the user is prompted to click a button if the exercise was completed. If the exercise was completed, then the next exercise pops up. After all rounds have been completed the user has the option to restart or they can terminate the program by clicking the x.

In conclusion the requirements for this program are a little more advanced than where I am at with my Java coding skills. Although a couple parts of my code that I planned on creating were not created, I successfully created code that guided a user through five rounds of ten, ten second exercises. In the future if I were to recreate this program I would not use Java. I would use a programming language that is compatible with apple products like Xcode. Java is not the most useful language for my goal of the program. With more experience and practice I believe I will be able to create a complete program in a different programming language. There are not many steps for the program but all together they become a more difficult problem.