Final Project CSCE 155N

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Our final project was to make code that includes a multitude of concepts that we were able to learn this semester, including graphical user interface (GUI), GitBash, as well as the basics of code which we have spent a lot of time learning during this course. It was also something that we could use even after this course has concluded. Because we are both very invested in our education and both have goals of pursuing a degree after a bachelor’s degree, we wanted it to be something we could use for a long time. The purpose of our code is to be able to tell a student what their final grade in a class may be. Having this code and being able to type a few numbers in, to then give us our predicted grade will be useful to us in the future as well as this semester and in the next week, with it being finals. Although this is a very useful code, we did have a few struggles along the way that we did not predict when getting started.

During our design process we had a few roadblocks. Our main issue was getting Gitbash to work and implement our code together, to then have it run smoothly. When writing our code, we split it up equally with one of us doing most of the GUI while the other wrote the equation to do the calculations of the grades. This seemed to work well for us and did not cause many problems when putting the entire code together. Though we had code that would work together, we had issues actually getting it together. We went through several different trials to get this to work. In the end we met up in person, so we were able to know our code did do exactly what we wanted to do. Because we were in person, we were able to answer each other’s questions and eventually get it to work.

Another major flaw in our code in the beginning was not factoring in that some classes have a different weight for different assignments. For example, the weight of our assignments was 10 percent while the weight of our tests were 50 percent. Due to this we would calculate all the points that were in the gradebook and then realize that we were not getting an accurate score for the class. In order to fix this issue, we had to add more code. This code basically adds a spot in the window that pops up when the code is run, in this new pop up, there is a box that says what is the weight of the select number of points. This allows us to then plug in all of the percentages and the points and wind up with the correct grade prediction.

Another issue we did not realize we had until the end was the fact that we only had one callback function to bring up the code and to meet the requirements of the assignment we needed two. We had to go back and add a part that pops up with an optional place to put what you need on your final exam. This allowed us to have two callback functions as well as increase the applicability of our code. Now that we have this second callback function, we can see what we need to score on the final to get our desired grade for the course and we have a better idea of our score for the class. Although we thought this was a bummer at first because it created another problem for us to solve and it allowed us to increase the usability of our code.

Graphical user interface is something that is used in everyday life, even if it is not noticed. To send a text message to someone it uses GUI, to do just about anything in our technology age it usually requires use user interface. In the future, using GUI is something that will happen, being an engineer and having to create presentations to inform companies on statistics of a specific object or technique a graph and presentation will be needed. I can see using GUI to increase the interaction with the graphs and the presentation in a company like setting. This example is just one, of many ways GUI could be used in our future occupations, while GUI is seen everywhere and will continue to be seen everywhere especially as our technology continues to develop.

Overall, the design and development of this final code was interesting, giving us some trials and tribulations. Now that we have it made, we will be able to use the skills used to make it in the future as well as the code itself. This project was something that will be super useful in our future.