Jewelia England

CS 499

Enhancement One Software design and Engineering

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The artifact that I have chosen to enhance for the first category, software design and engineering is a previous project that I worked on in my CS program for a bank application. What this code previously did is it takes an initial amount of money deposited into the bank, monthly deposits, and an interest rate to calculate a final rate.

I chose this artifact because I felt there were endless possibilities for the direction that I wanted to go to improve it. I have chosen to first start by converting the code from C++ to Java. This demonstrates my ability to code in multiple languages. I have not worked in Java too much throughout my time in the computer science program here at SNHU so I wanted to have another java project to show in my portfolio. I chose to incorporate a GUI into this program that will print a premium and interest payment, print the first year of payment with interest and balance for each month, and compare different interest rates and times. My program displays four different graphs to visually show the information that has been imputed and compare multiple interest rates, years, etc. I like this application because I can use it in real life scenarios when financially planning.

I did meet every single course objective I planned on meeting with the enhancements I had planned in module one. I ended up deciding to do four graphs instead of two because I felt it furthered the usability of the code for different scenarios. The graphs are as follows: Annual interest over months with deposits, Annual interest over months with no deposits, Monthly closing balance over time with deposits, and monthly Closing balance over time with no deposits.

I learned so much while enhancing my bank application. I had very little experience working with a GUI. I believe I had only touched on it briefly in a past course so I was familiar with it but this was the first time I actually planned and implemented one myself. I also added many comments to my code because it had little to none previously. This was good practice as I was able to go back and know exactly what each section of the code was doing immediately. This is something I need to be intentional about when it comes to my projects because I typically do not comment on my code as much as I should. A challenge that I faced at first was just knowing where to start when changing my codeover from C++ to Java. Originally, my code was written in visual studio and I decided to use Eclipse to write my code in Java. I was able to have both screens up on two monitors so that I could refer back and forth to the C++ code.