Hadi Abdelaal

CS-499

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**3-2 Milestone (Software designing & engineering)**

A C++ software that determines a student's median rating and letter grade is an initial artifact. This is one of the programs I made when I originally started learning C++ as a programming language. It was founded based on the C++ course on the Codecademy site that I took a couple of years ago.

I chose this item since I thought it would make an excellent representation of my multilingualism and comprehension. One of the possibilities listed in the rubric was to think about translating an assignment into another programming language, which is exactly what I did with mine. The artifact has undergone improvements so that it may now be used in a broader Java project instead of only C++, though I do not believe that it has been made better technically. I also think that it proves that I can use that skill in a large project, especially when working in my future job when asked to change a software to another programming language, that kind of skill is important in the workforce. Regarding the improvement of the artifact, I believe transferring the script from C++ into Java, and running it without errors would be a great example of understanding multiple programming languages as mentioned in the rubric of our course. I believe I have met the course objectives that I was planning to meet with the enhancement in module one. I have met some of the course outcomes for this enhancement as such; In the discipline of computer science, use techniques for creating cooperative settings that allow a variety of audiences to assist in company decision-making. Creating, architecting, and present written, verbal, and visual communications of an expert caliber that are technically sound, logical, and well-tailored to different audiences and situations. Show that you can apply reputable and cutting-edge methods, abilities, and resources in computing practices to build computer solutions that provide value and meet specific industry objectives.

I discovered that, at least superficially, the two languages are fairly comparable during the process of translating this C++ application into Java, and that knowing the fundamentals of both of them was quite helpful. The most difficult thing for me to do was to pick up where I left off with C++ and start coding in Java again. It took a little longer than it would have taken if I had been studying Java code because it had been a while since I performed any of it. It was a good experience as I have never attempted to transfer a software from one programming language to another, even though the project is relatively small, but it’s a good start to transferring bigger project from one programming language to another.

The big enhancement that I did for this artifact besides changing the script from C++ to java. The advantages of the improvement I made are listed below. Putting in place a user-friendly GUI, also a lovely format for the output. Incorporating sophisticated query features like GPA ranges and surname wildcards. giving the individual the ability to add and remove courses. Rely just on JRE and no additional external environments or plugins. Occasionally, the UGMS uses checkboxes or messaging windows to trigger warnings.