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CS – 499

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**Milestone Two Assessment**

**Briefly describe the artifact. What is it? When was it created?**

The artifact that I chose to meet this category is a Java program that has multiple travel destinations. Each destination has a picture with a slight description of the destination. It was created in March of last year when I was enrolled in CS – 250 Software Development Lifecycle course, and I thought that this would be a good project to port to a new language.

**Justify the inclusion of the artifact in your ePortfolio. Why did you select this item? What specific components of the artifact showcase your skills and abilities in software development? How was the artifact improved?**

The reason why I chose this artifact is because it was going to be a challenge for me. Meaning that I haven’t written a Python project in months, so I thought it would be a great refresher for the language overall. It is also a learning curve because I have never used the mat plot library in Python to implement pictures with individual descriptions to a Python project.

Within the enhanced artifact there are components that showcase my skills as a developer, one skill that it showcases is that an understanding of the Python language overall because I was able to take an artifact that was written originally in Java language and port it to Python. Another skill is being able to create a subplot of pictures along with individual descriptions for each image. With the implementation of this design, I was able to change the background of the output window to display a lighter shade of gray and put the description of each destination in alignment with the image it corresponds to.

The artifact was improved by way of changing the background color of the destinations along with their descriptions. Therefore, the background makes the description more readable allowing to inform the user of the destinations they are observing. Another improvement that I have implemented was adding more travel destinations as well as the best time to visit each destination.

**Did you meet the course objectives you planned to meet with this enhancement in Module One? Do you have any updates to your outcome-coverage plans?**

I have met some of the course outcomes with this enhancement, one of which is designing and developing professional-quality written communications that are coherent, technically sound with inline comments throughout the Python project. Another object that I have met from this enhancement category is to achieve computing solutions that solve a problem using principles and computer science practices that are appropriate for the language. Therefore, I have met the planned course outcomes with this enhancement. I was successfully able to port this project into Python language and meet the three planned course outcomes that were discussed in Module One Enhancement Plan. As of the time of writing this I currently do not have any updates to my outcome-coverage plans.

**Reflect on the process of enhancing and modifying the artifact. What did you learn as you were creating it and improving it? What challenges did you face?**

One thing I have learned from the enhancement of this artifact was how to work with Python again. It was a great refresher of the language, and it has made me feel confident as a developer. I honestly thought I forgot everything about the language, but as it turns out, I was incorrect about my assumptions. I was introduced to a new Python library while working on the enhancements of this project which was the Tkinter library. With this library I learned how to create canvas structures and grids to display the pictures with the appropriate description labels. Another thing I learned was to create functionality within Python that enables the user to click on the image or description of the image and the background change color to indicate that the row is selected.

I did face challenges with this milestone, one being that I learned a whole new language that enabled me to complete this application enhancement appropriately. Another challenge that I faced with this milestone is that I am receiving a warning of unexpected argument on two lines that I am having trouble figuring out. In my research, I have found to use widget and ‘bg’; However, when changing the lines of code as suggested, I am still receiving the same warning. Therefore, I am led to believe that this warning is not critical to the overall applications functionality.

Another challenge I faced was implementing the scroll wheel functionality, but after researching the implementation I was able to enhance the artifact another way to make it easier for the users to scroll through the output window. Meaning that they can scroll through the page with their mouse, rather than having to hover above the actual scroll bar within the left side of the window.