Class: CS499 Computer Science Capstone

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

I included my original artifact the Project Two Dashboard, which was created approximately a year ago. I also included my new revised artifact Project Two Dashboard Revised class, which I created this week.

1. **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?**

I selected this item to demonstrate my ability to utilize innovative skills and techniques to improve the overall user experience on the dashboard. It’s important to demonstrate my ability to consider and prioritize the importance of a positive user experience when talking about my work. I want to showcase my ability to design and build code that is technically sound with appropriate data structures and algorithms but is also designed with user preferences in mind.

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

I believe I met the course outcome I planned to complete with this enhancement, because I was able to modify the programming of the dashboard to expand and improve the user experience. I also added comments to each of the new and existing dashboard features to provide clear documentation about each of the features. This will be especially important when working within a team to make it clear to other developers what the functionality is for each item. For example, if an enhancement request were to come in from the business to expand the viewing capabilities to 20 items per page, then the assigned developer could see my comment next to the page\_size = 10 code that this is where the setting view is set to 10 for optimal viewing, and this is the correct place to modify the code per the enhancement.

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

It was challenging not having the original data file from MongoDB to be able to unit test receiving the data back while trying out the various feature changes to the dashboard interface. For this activity I had to rely solely on my research of the various interface options available for desired modification of the dashboard. To research modification options for the dashboard, I referenced the following Python documentation: <https://realpython.com/python-dash/#how-to-create-interactive-components> and <https://dash.plotly.com/datatable/interactivity>