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The artifact that I chose was a basic calculator that was used for the teamwork and collaboration class at SNHU. The artifact was used mostly to learn how to use BitBucket with other people on a team. Several concepts I wanted to showcase with this artifact was my ability to add to code and contribute to existing projects. I had also wanted to show that I can make various improvements to a project. In this situation, I wanted to add several functions and also improve on the GUI.

The reason this artifact is good for the ePortfolio is that it showcases my ability to contribute to existing projects. In many situations, as new computer science graduates, we may be expected to code on projects that already exist and are functional. Creating several functions for the calculator proves that I have the ability to do just that. The specific components that I added to the calculator were various math functions, sin, cosine, tangent and their inverse functions. I had also improved the graphical user interface to improve the layout of the buttons such as the numbers and the operator buttons.

The artifact satisfies several indicators of success such as innovative skills and techniques being used to accomplish goals. This involved researching ways to get the correct mathematical function into the calculator. After learning the approach to take in order to get the function to work, the function was added along with the proper buttons for the GUI. Logical problems were solved by correctly implementing the functions into the calculator. If the functions were not working, the calculator would not function properly. The functions can easily be tested against other calculators. My plans had been to improve the functional ability of the calculator and to improve the GUI. Both goals had been accomplished.

When working with the calculator I quickly learned my limitations on how far I can improve it with my current skill. The functions required some research to find mathematical formulas to use in order to get the correct answer for different numbers. However, using the mathematical formula isn’t always the best solution. Using libraries was definitely the easiest and most practical way to create functions for the calculator. I learned that when you have a plan to create something and once you start to actually implement that plan, you should be ready to replan again if your solution doesn’t work as intended.