Enhancement Two: Algorithms and Data Structure

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For Enhancement Two: Algorithms and Data Structures, I chose a project from CS: 250 Software Development Lifecyle. It is a slideshow the displays the top 5 vacation destinations. It has a picture of the location and a short description. The application has a previous and next button that allows the user to change slides. To meet the milestone requirements for algorithms and data structures I added a random button and cleaned up the code.

The random button demonstrates 2 of the course outcomes. The first outcome it meets is to design and evaluate computing solutions that solve a given problem using algorithmic principles and computer science practices and standards appropriate to its solution while managing the trade-offs involved in design choices. This program serves the user by displaying desirable vacation locations and does so in a nice-looking manor. This was done while implementing a new random button. The button functions with a method I created that generates a random number then iterates through a loop to determine the next slide shown to the user. This was done while considering the overall look and feel of the application. It had to fit in with what was already designed. The second outcome the enhancement meets is to develop a security mindset that anticipates adversarial exploits in software architecture and designs to expose potential vulnerabilities, mitigate design flaws, and ensure privacy and enhanced security of data and resources. When I created the method, I did more than just create a sorting solution. It contains code that prevents the minimum number from being greater than the maximum number. If this was not present, the application would crash. It also has code that limits the amount of loops that can run. If there were many slides, the program could take too long to run or even freeze.

I was able to meet my planned outcome for enhancement two. It shows my knowledge of algorithmic principles and composing secure code. I researched a lot of different libraries for this. I wanted to try to focus on efficiency and security while coding. I also added a lot of in line comments. There were quite a few things in my original code that I had to relearn. Overall, I feel like I created a great random method.

Works Cited

None/Not applicable