Enhancement One: Software Design/Engineering

A. **The Artifact Description**

The artifact was developed with Java GUI for SNHU Travel website. This application was designed to display the top five travel destinations. This source code was provided for course CS-250, Software Development Lifecycle.   The software was released to students and allows students to expand the business presence and offering trendy, niche vacation packages that will gain a larger audience with the US.

B. **Inclusion of the Artifact Justification**

In today software market, the key is to expand the client base with new tools for their customers. This artifact was attracted to me because I can see there is an opportunity to enhance the application to maximize the potential. In order to optimize the software, the areas must be improved are structure, efficiency, and commenting.

C. **Planned Enhancements Review**

During code review, there were some observable features that need enhancement.
1. Including a header with information about where it came from, who wrote it and who has the ownership of it. Providing a description of code functionality. This information will help to make it easier to extend the code for the future update.

2. Replaced the magic number of textPane.setbound in Line 44, and stop index in line 64 with the argument to pass into the method as parameter. Assign a descriptive name for argument. This will eliminate the structure limitation because all components were initialized in a private method.

3. Modified the private String getResizeIcon(int i) method to take int i and return a single string in the getFileString(int index). Added an error handling to throw an exception if the resource of the image is not existing.

D. **Reflect on Enhancement Process**

Some of the programming best practices were not applied in this source code that wasn't standout to me when I had this CS-250 last year. Many professors in previous classes have been emphasized about commenting or documenting the code and I can see why it is important now. Secondly, design program such a way that allows the next developer to update and expand the code with minimal modification. At the minimum, error handling should be implemented to prevent software crashed when calling files from an external resource. During the enhancement process, the challenge I had was to figure out how to get the source code running. Of course, it was not running successfully the first few tries because the image files were missing. There was no instruction on how to apply the dependency files to run the code so it was a bit difficult to remember how to get it running again since the last time I ran the code.