Artifact Description

The artifact is a Java Swing application that displays a list of top detox destinations with their descriptions and images. It was originally created for a software development project to demonstrate skills in creating graphical user interfaces (GUIs) and handling data structures in Java. The initial version of the application was created earlier in the course, and the enhancement was added recently to further showcase my skills in algorithms and data structures.

Justification for Inclusion

I selected this artifact for my ePortfolio because it represents my ability to develop interactive and user-friendly software applications. The specific components that showcase my skills in software development include:

GUI Design: The use of Java Swing to create a visually appealing interface.

Data Handling: The management of detox destination data using the DefaultListModel and TextAndIcon classes.

Algorithm Implementation: The enhancement added to sort the list of destinations alphabetically, demonstrating my understanding of algorithms and data structures.

The enhancement improved the artifact by adding functionality that allows users to sort the list of destinations, making it more user-friendly and interactive. This demonstrated my ability to apply algorithms to improve the efficiency and usability of an application.

Reflection on the Enhancement Process

During the enhancement process, I learned how to apply sorting algorithms to a real-world application and how to integrate new functionality into an existing codebase. I faced challenges in ensuring that the sorting function worked seamlessly with the existing data structure and GUI components. I incorporated feedback from peers and instructors to refine the sorting feature and improve the overall user experience.

The artifact was improved by making it more interactive and user-friendly, with the addition of the sorting feature. This enhancement met the following course outcomes:

Building Collaborative Environments: By working with peers to gather feedback and improve the application.

Designing and Evaluating Computing Solutions: By enhancing the application to meet user needs for sorting and organizing information.

Using Innovative Techniques and Tools in Computing Practices: By applying sorting algorithms to improve the functionality of the application.

While the enhancement focused on algorithms and data structures, it did not directly address some other course outcomes such as security mindset for software architecture. However, it provided a solid foundation for future enhancements that could address these areas.

Overall, the enhancement process was a valuable learning experience that allowed me to apply my knowledge of algorithms and data structures to a practical software development project. It also highlighted the importance of user feedback and iterative improvement in the development process.