**I. Introduction**

The "Aloha Stitch" project aims to create an interactive program that simulates a conversation between the user and Stitch, a fictional character. Stitch has two distinct moods, loving and rotten, based on the user's previous input of phrases such as "I love you" or "You're rotten." This project entails implementing an interactive system that remembers Stitch's mood and responds to user input with predefined phrases.

**II. Methodology**

The program follows a structured approach to solve the problem. The user inputs a code that corresponds to predefined phrases, and Stitch responds accordingly. If the user enters "I love you," Stitch becomes loving, while "You're rotten" shifts Stitch's mood to rotten. Some phrases trigger different responses depending on Stitch's mood, while others have consistent responses. The project incorporates idiot-proofing to validate user input and ensures that Stitch's mood is correctly remembered between runs.

**III. Implementation Steps**

The program's implementation consists of several key components:

1. Input Stitch's mood from a file.

2. Idiot-proof Stitch's mood to validate its correctness.

3. Prompt the user to input a code for the predefined phrases.

4. Idiot-proof the user's input to ensure it's a valid code.

5. Generate responses based on the user's code and Stitch's mood.

6. Output Stitch's response to the user.

7. Update and output Stitch's current mood to a file for future runs.

**IV. Challenges and Solutions**

During implementation, we faced some challenges and issues, including handling user input validation, managing the complexity of responses based on mood, and correctly storing and retrieving Stitch's mood from a file. We addressed these challenges by using structured programming and extensive testing to ensure that Stitch responds accurately.

**V. Learning Outcomes**

This project offered several valuable lessons. Notably, we learned the importance of idiot-proofing to validate input. While we did not utilize loops in this project, we recognized that they can be beneficial for repetitive tasks and could have streamlined the code. Overall, this project provided insights into program structure, user interaction, and maintaining program state.

**VI. References**

“CS 1313 010: Programming for Non-majors in C, Fall 2022 Programming Project #4: Italian Restaurant Due by 10:20am Wednesday Oct.” *CS 1313*, 26 October 2022, http://cs1313.ou.edu/proj4.pdf. Accessed 23 October 2023.