**Jason Toledo**

**Class: CS 521 – Fall 1**

**Final Project Summary**

For my final project, I decided to build a fishing log tracker to capture a user’s fish caught for that day. The program records the species, the quantity for each one caught, and the user’s opinion on how that fish tastes to them.

The program starts by prompting the user for the name of their previous log and showing them their results for that day. Then, the user is prompted on where they will be fishing for that day. The user then sets their personal goal for the day and the program responds with a different comment depending on how small or large their goal is.

Once the user sets their goal, the program will inform them of the available game (fish) for that particular habitat. The program then proceeds to go through a while loop to ask the user whether they caught a fish or not. If the user catches a fish that is not part of the current list, then they are able to manually enter new fish in the program and it will summarize those as well. Unfortunately, I think validating if these new fish are part of an official fish database somewhere may be beyond my current skill level – I would hope the user has entered the correct name. I envision that if this were a mobile app, the user would be able to scroll through a list of names or have a photo example to click on for each fish. If the user has caught 0 fish total, the program ends and there is no log created for that day.

A user-defined function takes the current fishing list the user created and turns it into the fishing log object. Then, depending on the number of fish a user caught, the program will tell them how they did compared to their goal.

The next part asks for how the user thinks each fish tastes. This part I found to be tricky to get the logic correct – it took me a while and I decided to use the remove() method rather than the pop() method and finally got it to work. The user will have to loop through the fish list to move on to the next part of the program.

This next section was definitely the most challenging block of code I had to go through. I implemented another while loop and nested conditionals to ask the user whether the habitat and taste values displayed matches what they wanted – if there is a change required, the program will invoke the private or public methods to change the habitat and taste values as they see fit. The program will then display the updated information to the user and ask them to confirm.

If everything looks good to the user, the program will then write their results as a neatly formatted text file containing the number of fish and species caught, the total fish caught for the day, and the “Fish” class \_\_repr\_\_ values in the output file.

I think that the program is useful because it shows the user their previous records by submitting the input file and prints it out for them. They will be able to keep track of their fishing activity and understand the progress they are making as a fisherman. I think this would be a great backend architecture if there was a frontend build paired with it.

PS. I would have never imagined I could build a 300+ line program, thank you!!!