**ProjX Documentation**

**Purpose:**

The purpose of this project was to be familiar with dynamic memory allocation and smart pointers.

**Design:**

The design of this project was very simple and easy to follow. I feel like this project was kind of an easy points kind of project.

**Challenges:**

This project was not that hard at all and was easier than other projects. Smart pointers are not that hard for me to understand so this project was relatively easy for me.

**Changes:**

This project wasn’t as difficult as anticipated. I finished it relatively quick and fast. I am really starting to hate the conceptual based projects where we need to make a class and test it with a driver. I liked CS135 more where we made more useful and fun projects like calculators, tic tac toe, or calculations. These projects in CS202 are more annoying to deal with and harder to understand. I feel that there should be example outputs so I can gauge how I should setup my code to achieve a desired output rather than reading to see what specific methods need to have with them.

**Observations:**

I am not going to go too into detail with what I observed. The code seems to work fine except for the ref count. Some numbers were 0 and 1 as expected but towards the end, the ref count for when the destructors were called returned weird high value numbers and I am not sure why. I did this project last minute and I did not have time to investigate these numbers to determine if they were correct or not. When I run the code more than one time the numbers change.

Here is the output:

