Shaun Sobers

Summary Report

MySimplePaintApp

Advance Programming

Program Description:

The MySimplePaintApp is a desktop application that allows users to draw different shapes such as rectangles, ellipses, and freehand drawings, and fill them with different colors. It also allows users to select, resize, and move shapes around the canvas. The program is built using C# and .NET framework, and it utilizes the Windows Forms technology for creating the user interface.

The initial plan for the program was to create a simple drawing application that allows users to draw shapes and fill them with different colors. However, during the development process, several features were added to the program to improve its functionality and usability. The following sections describe the changes made to the program, the features that turned out to be easier or harder than expected, the features that had to be changed or dropped, and the lessons learned during the development process.

Changes Made to the Program:

Initially, the program only allowed users to draw rectangles and ellipses. However, during the development process, a freehand drawing feature was added to allow users to draw arbitrary shapes. The program was also modified to allow users to select, resize, and move shapes around the canvas. Undo and redo features were also added to the program to allow users to undo and redo their actions. Finally, a feature was added to allow users to copy and paste shapes.

Features that Turned Out to Be Easier or Harder than Expected:

The ExportFile feature ended up being easier than expected. The implementation of the feature was straightforward, and it required minimal changes to the existing code. The selection, and move features were a bit more complex, but as I did more research it became a bit easier to implement. For example, for the selection, I was unsure of how I could do this, but with the help of some YouTube videos, and google, I realized that It was as simple as going through the list, and seeing if there are any shapes in the area of the selection of your mouse, is so that shape will be labeled as selected. The feature that was the hardest to implement was the resizing of the created shapes. This was hard because I didn’t want to resize the shape using the original sliders, but instead I wanted to resize it using the mouse. This required me to do a lot of research on how to implement it.

Features that had to be Changed or Dropped:

There were many feature that I initially wanted to implement, but because of the complexity or the usefulness, I chose against it. For example, I wanted to implement a rotate feature, but because all my shapes are evenly placed, regardless of if it is rotated, it will look the same. Another feature I chose to remove was the text feature. While trying to implement this code, I realized that it would be longer than expected due to the fact that each textbox would have to be saved, with the strings content that the user inserted.

Lessons Learned:

The development of the MySimplePaintApp taught several lessons. First, it is important to plan the program's functionality carefully before starting the development process. However, it is also essential to be open to making changes and adding features during the development process, as this can improve the program's functionality and usability. Second, it is important to choose the appropriate data structures and algorithms to implement the program's features efficiently. Finally, it is crucial to test the program thoroughly to identify and fix bugs and usability issues. Testing should be an ongoing process throughout the development process and not just at the end of the development process.

In conclusion, the MySimplePaintApp is a simple yet useful program that allows users to draw and manipulate shapes on a canvas. The program's development process taught several lessons, including the importance of careful planning, the need for choosing appropriate data structures and algorithms, and the importance of testing the program thoroughly. Overall, the project allowed me to practice some of the topics taught throughout the semester, as well as gave me a great project that I can use on my portfolio.