Assignment 5

CS321 Winter 2023, Professor Christopher Diggins

Create a Windows form application with a Picture control and several other controls.

Allow the user to click anywhere in the picture of control and draw a shape of your choice (like an Ellipse or Rectangle). While the user moves the mouse the shape should be updated. When the user lets the mouse button up complete drawing the shape. If the user presses the right mouse button, cancel drawing the shape.

Add the following menu items:

- "Test" that will draw 5 shapes in random positions:
- "Undo" that will undo the last drawn shape.
- "Clear" that will clear all shapes.

Add UI controls to the form for changing:

- The outline color – could be a button that opens a color dialog.
- The fill color – same as above.
- The stroke width – could be a track bar.
- Whether the shape is filled or not – could be a checkbox.

You can find a sample application at:

- https://github.com/cdiggins/cs321/tree/main/code-examples/SimplePainterApplication

In this application if you click on the picture box a shape will be drawn of a size specified by track-bars. Your application on the other hand should allow the user to change the shape based on the mouse movement.

Grading:

- 10 Points – does what is asked.
- 5 points – code is good quality and follows style conventions - https://learn.microsoft.com/en-us/dotnet/csharp/fundamentals/coding-style/coding-conventions

Submission

Please submit:

- A screenshot as .PNG of your application after pressing test once, and undo once.
- Your project folder containing the code and project files

A screen shot of the sample application. Your application would not use trackbars for "Shape Width" and "Shape Height".