

## WEEK 4 LAB EXERCISE 2

### LAB DESCRIPTION

In this lab, we learn and apply the following concepts:

- Mouse-Event Handling
- MouseEventArgs and EventArgs objects
- Mouse events: MouseUp, MouseDown, MouseMove, MouseHover, MouseEnter & MouseLeave

### GETTING STARTED

To complete this lab you do not need any previous lab solution.

### LAB STEPS

1. Start a new project with Windows Form Application template called MyPaint.
2. Add a Panel control to your form and dock it in Parent Container
  - a. Set name to pnlCanvas
  - b. Change the BackColor of the panel to White
  - c. Set BorderStyle to FixedSingle
3. Create variable of type color called brushColor
4. Create Boolean variable called brushDown
5. Create integer variable for brushSize
6. Add a MouseDown event for pnlCanvas to set BrushDown to true
7. Add a MouseUp event for pnlCanvas to set BrushDown to false
8. Add a MouseMove event for pnlCanvas
  - a. Use CreateGraphics method of pnlCanvas to create a graphics objects
  - b. Use the graphic object's FillEllipse method to draw an ellipse using
    - i. brushColor

- ii. X coordinate passed by MouseEventArgs
  - iii. Y coordinate passed by MouseEventArgs
  - iv. brushSize for Height and Width
9. Add **ToolStrip** control to your form
10. Add **Erase All** Button to ToolStrip as a Text button and implement the event handler.
- a. Use Graphics. Clear()
11. Add Five color buttons to set background color of the graphic.
- a. Should change the color of the graphic on MouseHover event
  - b. Only apply the color to the background when clicked
12. Add **font color** Button to ToolStrip as a Text button and implement the event handler.
- a. Show the font dialog and set the brushColor on selection.
13. Add a combo box to ToolStrip to set the BrushSize