Experiment 8

Objectives

- To learn Button
- To learn PictureBox
- To learn Timer
- To learn TextBox
- To learn Form

Lab Exercises – Memory Game

Design a memory game. For this, a main form screen opens and there is a start game button on the main form. When the button is clicked, 2 different forms will open (2 users). In these opened forms, 3 different symbols are displayed in a rectangular area with random numbers and random coordinates. After the defined time has expired (e.g. 5 seconds), these symbols disappear from the form. The user tries to guess the numbers of the symbols. Enters estimated values into the textbox field. Either the form1 user or the form2 user gets the score, depending on their distance from the predicted value.

Checkpoints

1. Creating the main form screen and adding the "Start Game" button.

2. When you click on the "Start Game" button, 2 different forms will open.

3. Creating a rectangular area in both forms and displaying symbols in random numbers and random coordinates in this area. Different coordinates and symbols will be created for each form. You can use the PictureBox control for this.

4. Using a timer so that the symbols disappear after a certain period of time (Timer).

5. Adding a TextBox in both forms for the user to guess the symbols.

6. Calculating points according to the numbers entered by the user and displaying them on the main form.

Details about calculating the score are on the next page.

*** Grading deductions (-15 p) will be implemented for assignments submitted during the final 15 minutes (16:45 - 17:00) before the end of the lesson.

ROUND 1	Form1 (User 1)	Form2 (User 2)
	Actual Value: "*" : 8 "o" : 7 "_" : 9	Actual Value: "*" : 8 "o" : 7 "_" : 9
	Estimated Value: "*" : 5 "o" : 3 "_" : 6	Estimated Value: "*" : 4 "o" : 3 "_" : 5
	Calculation: "*" : 8 – 5 = 3 "o" : 7 – 3 = 4 "_" : 9 – 6 = 3 3 + 4 + 3 = **10** unit error	Calculation: "*" : 8 - 4 = 4 "o" : 7 – 3 = 4 "_" : 9 – 5 = 4 4 + 4 + 4 = **12** unit error
10 < 12	WINNER	LOSER

ROUND 2	Form1 (User 1)	Form2 (User 2)
	Actual Value: "*" : 2 "o" : 3 "_" : 5	Actual Value: "*" : 2 "o" : 3 "_" : 5
	Estimated Value: "*" : 4 "o" : 4 "_" : 2	Estimated Value: "*" : 3 "o" : 3 "_" : 3
	Calculation: "*" : 2 – 4 = 2 "o" : 3 – 4 = 1 "_" : 5 – 2 = 3 2 + 1 + 3 = 6 unit error	Calculation: "*" : 2 - 3 = 4 "o" : 3 – 3 = 0 "_" : 5 – 3 = 2 4 + 0 + 2 = 6 unit error
6 = 6	WINNER	WINNER