8/6/23, 5:55 PM EC447 - Software Design

EC447 Course Web Site

Due Sunday August 6 (by midnight)

The object of this assignment is to design an application to generate numeric palindromes. A numeric palindrome is a number that reads the same from right to left or left to right. For example, 1234321.

A fully working implementation of this program can be found <u>here</u>. You are to duplicate all aspects and operation of this program. Anything that does not match the example will result in a loss of credit. This includes the layout and approximate size of the controls.

Settings Dialog

A standard <u>modal</u> dialog is implemented to specify the starting value and the number of palendromes to generate. Format the dialog as I went over in class and in the slides.

- 1. The dialog should be in a field and instantiated only once in the constructor.
- 2. There are two text boxes for the starting value and the number of palindromes to generate.
- 3. You MUST check for conversion errors and numbers out of range such as negative, too large or small.
- 4. The OK button triggers conversion and validation of the data entered.
- 5. An error message is displayed in a <u>label</u> control and the dialog is not closed.
- 6. If there are no errors the dialog result OK is returned.
- 7. The cancel button returns the dialog result for cancel and this closes the dialog.
- 8. The error comment is always cleared upon successful data entry.
- 9. The title must be "Settings."
- 10. Name the project Lab5.

Main Form

- 1. The title must contain your name.
- 2. The solution and project name must be Lab5."
- 3. The generate button opens the settings dialog.
- 4. If the dialog returns OK then the palendeomes are generated and displayed in the list control.
- 5. If Cancel is returned the list control is cleared.
- 6. The list box is sized to the approximate width in my exammple and has 10 rows.
- 7. You must have a form title as well as a heading on the page that follows the example. Use labels and match font sizes. DO NOT USE A PAINT EVENT>
- 8. The main form is centered on the screen and the dialog is centered in the main form.
- 9. No unhandled exceptions are allowed. Test, test, and test some more.
- 10. HINT: I tested for a palindrome by converting the number to a string, reversing the string and comparing to the original. You can use another technique.

Check your program against every key point and my solution.