

# Assignment #2

**Due: October 18<sup>th</sup>, 2018**

In this assignment, you are to design a program that *explores the use of event methods* such as **Button\_Click** and **Lost\_Focus** to model some of the behavior required to model physical devices such as calculators and mobile phones. Your implementation should only use the Visual Basic language features described in Units 1 through Unit 4 and the corresponding sections of the textbook.

This program provides a way of using a single button to construct an integer one digit at a time and display it in the first TextBox. Each digit is determined by the number of times the button is clicked. The selected digit then gets appended to a second TextBox as the rightmost digit of the number in the second TextBox. Initially, the value displayed in the both TextBox is 0.

## **The Form includes:**

- A Button to be used to select a digit from 0 to 9. The number selected is determined by the number of times the button is clicked, from 0 to 9. If it is clicked more than 9 times the digit selected is obtained by using the “mod” function. That is, the expression “count mod 10” where “count” is the number of times the button is clicked.
- A TextBox to display the current digit selected by the button. This digit is appended to the end of the previous digit that have been selected. The initial value of this TextBox is Zero.
- A second TextBox to show the integer. At each given time, this TextBox shows the current status of the integer based on the digits that have been appended so far. The initial value of this TextBox is zero which will be replaced by the first selected digit.
- A “NEXT” button that appends the digit selected and showed in the first TextBox as the rightmost digit of the number already displayed in the second TextBox and permits another digit to be entered in the first TextBox. The Next button places a 0 in the first TextBox.
- A button labeled “QUIT” that terminates execution of the program.

Before writing your program, you are to draw a flowchart that begins with test boxes that determine whether the event that occurs is a “click” event or a “lost focus” event. The result of these tests should determine what computations need to take place and what output needs to be produced. The flowchart should then return to the test boxes to test the next event.

## **Submit:**

1. A PDF file called “Report.pdf” which includes: A copy of your **flowchart** and a **screen shot of your Form** after the “ADD” button has been clicked.
2. The source code of your program.

**Compress all your files in one single zip file called Assignment2.zip and submit it on CourSys Website.**