# COMPUTER PROGRAMMING

# REPETITION (LOOPS) – 2

by
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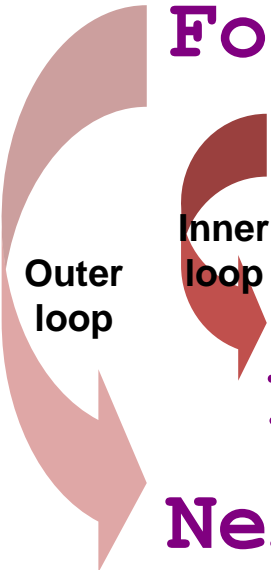FACULTY OF CIVIL ENGINEERING & EARTH RESOURCES
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# Nested For…Next  Loops

- Similar to nested If Blocks, when one For…Next Loop is contained inside another For…Next Loop , the structure is referred to as **nested For…Next Loop**.

- It is usual use if the **conditions** are more than **2**

# Example Syntax: Nested For…Next Loops

```
For i As Integer = 65 To 70
    For j As Integer = 1 To 25
        lstBox.Items.Add(Chr(i) & j)
    Next
Next
```

**Outer loop**

**Inner loop**

Output:   A1

          A2

          A3

          :

# For and Next Pairs

- For and Next statements must be paired.

- If one is missing, the automatic syntax checker will complain with a wavy blue underline and a message such as :

  *"A 'For' must be paired with a 'Next'."*

# Start, Stop, and Step values

- Consider a loop beginning with

  `For i As Integer = m To n Step s`

- The loop will be executed exactly once if *m* equals *n* no matter what value *s* has.

- The loop will not be executed at all if *m* is greater than *n* and *s* is positive, or if *m* is less than *n* and *s* is negative.

# List Boxes and Loops

- Some Properties of List Boxes

- List Boxes Populated with Strings

- List Boxes Populated with Numbers

# List Box Properties

- The total number of items in a list box is

  `lstBox.Items.Count`

- **Note:** Each item in lstBox is identified by an index number from 0 to lstBox.Items.Count – 1

- The value of the item with an index of *n* is:

  `lstBox.Items(n)`

- To display the first element of lstBox.Items in a text box:

  `txtBox.Text = lstBox.Items(0)`