

COMP1022Q
Introduction to Computing with Excel VBA

Referring to Cells in VBA

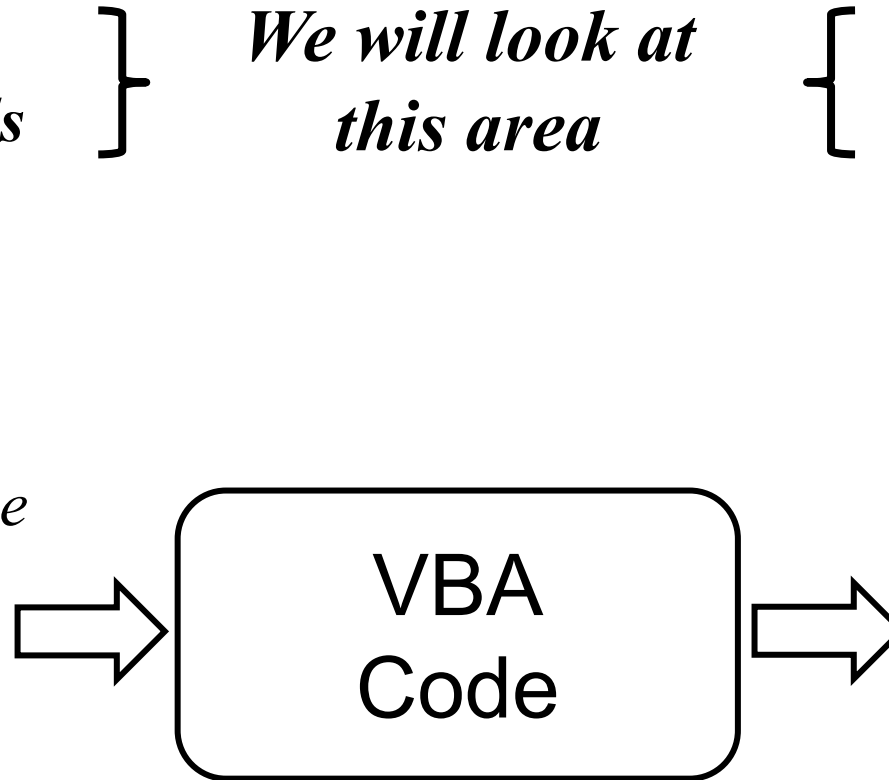
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Outcomes

- After completing this presentation, you are expected to be able to:
 1. Use the Range command and the Cells command to read and write a cell in VBA
 - ~~2. Write code to access cells in different worksheets in VBA~~
 - ~~3. Work with the currently selected cell and the current worksheet~~

Inputs

- *Inputs can come from cells*
- *Inputs can be entered in a small window (InputBox)*
- *Inputs can come from files*
- *Inputs can come from web pages*
- *Inputs can come from mouse movement*
- *... more ...*



Outputs

- *Results can go in cells*
- *Results can be shown in a small window (MsgBox)*
- *Results can go in files*
- *Results can be sent to web pages*
- *We can generate shapes*
- *... more ...*

Reading/Writing Cells Using Range

- You can use Range to read and write a cell value using VBA code
- For example, you can
 - read the content of cell B4 and put it into a VBA variable called `Result` using this code:

```
Result = Range("B4").Value
```

- put a string “Hello” into cell C4:

```
Range("C4").Value = "Hello"
```

Range Uses Cell References

- Range uses a cell reference, e.g. “A4”, like this:

```
Range("A4").Value
```

- You can also use a named cell
- For example, if a cell has been named “InputValue” to access the content you can do this:

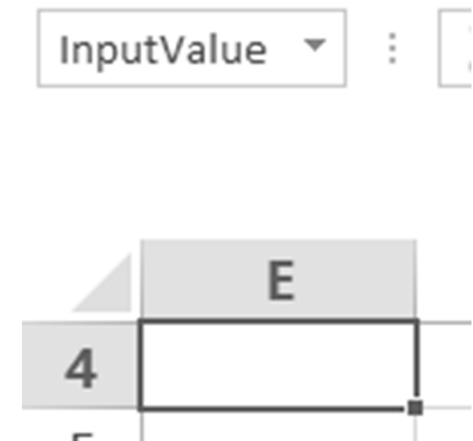
```
Range("InputValue").Value
```

to refer to that cell in VBA

- Range can also refer to multiple cells like this:

```
' Clear the content of five cells
```

```
Range("A6:A10").ClearContents
```



Using Cells ()

- Another way to read or write a cell is to use `Cells` with the row and column number of the cell
- For example, to read cell B4 using `Cells`, you need to do this:

`Result = Cells(4, 2).Value`

The row and
column number
of the cell

- The good thing about `Cells` is that you only need to use two numbers; that is easier for programming than handling a letter and a number e.g. “A2”
- However, that means you can only refer to one single cell using `Cells`

Comparing Range () and Cells ()

- To refer to the selected cell shown on the right we can use one of the following code:

- Using Range with a cell reference

```
Range ("C10") .Value
```

- Using Range with the name of the cell

```
Range ("MyAge") .Value
```

- Using Cells with the row and column number

```
Cells (10, 3) .Value
```

