VBA Essentials Cheat Sheet
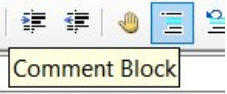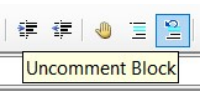
VBA Data Types

String
Used to hold text

Long
Long integer (whole numbers). -2,147,483,648 to 2,147,483,647

Integer
Short integer (whole number). -32,768 to 32,767

Boolean
True or False

Boolean
True or False

Date
Holds date data types. 1/1/100 to 12/31/9999

Single/Double
Used to hold values with decimals

Variant
Catch all data type. When an explicit data type is not declared, variant type is assigned

VBA Common Operations (Required syntax in bold)

If Statement
```
If numGrade > 90 Then
     letterGrade = "A"
ElseIf numGrade > 80 Then
     letterGrade = "B"
Else
     letterGrade = "F"
End If
```

For … Next Loop
```
For x=0 to 49
     'Loop Over Code
Next x
```

For Each … Next Loop
```
For Each Item In Selection
     Item.Offset(0, 1) = Item * 2
Next
```

Do … Loop While
```
Do
     .Range("A1").Offset(Item,0) = Item
Loop While myBool = True
```

Do While … Loop
```
Do While myBool=True
     .Range("A1").Offset(Item,0) = Item
Loop
```

VBA Interacting With User

Message Box
```
Msgbox "Hello world"
```

User Input
```
usrInput = InputBox("Please Enter Your Name")
```

Comparison Operators

Greater Than / Greater Than or Equal
```
Greater Than : >
Greater Than or Equal: >=
```

Less Than / Less Than or Equal
```
Less Than : <
Less Than or Equal: <=
```

Equal / Not Equal
```
Equal : =
Not Equal: <>
```

Logical Operators

Or
```
True Or True = True
True Or False = True
False Or False = False
```

And
```
True And True = True
True And False = False
False And False = False
```

Not
```
Not True = False
Not False = True
```

Commenting Code

Single Line Comment
```
Single line comments are created by
using an apostorpher (') at the
beginning of a line

Msgbox "This line of code will execute"
'Msgbox "This line of code will execute"
```

Multi Line Comments
```
View -> Toolbars -> Edit
```


Comment Block   Uncomment Block

Referencing Workbooks/Worksheets/Ranges

Workbooks
Workbook that contains code:
ThisWorkbook
Using the Active Workbook:
Active Workbook
Using Numbered Index:
Workbooks(1)
Using Workbook Name:
Workbooks("myWkbk")

Worksheet
Using the Active Worksheet:
ActiveSheet
Using the Selected Worksheet:
Windows.SelectedSheets
Using Numbered Index:
Worksheets(1)
Using Worksheet Name:
Worksheets("myWksht")

Range
Reference Single Cell:
Range("A1")
Refernce Multiple Adjacent Cells:
Range("A1:C5")
Reference Multiple Non Adjacent Cells
Range("A1:A5, C1:C5")
Using a Named Range
Range("myRange")

Cells
Refernce All Cells
Worksheet.Cells
Rererence Cells with one Parameter
Cells(3) = "C1"
Reference Cells With Two Parameters
Cells(3,3) = "C3"
Cells(3, "E") = "E3"

Useful Tips

With … End With
```
With ThisWorkbook.Worksheets(1)
     .Range("A1")=Month
End With
```

OffSet
```
For x=0 to 100
     .Range("A1").Offset(x,0) = Rnd
Next x
```