

### VBA data types

Type	Description
Variant	any data type
Integer	(2 bytes) integer
Long	(4 bytes) integer
Single	(4 bytes) floating point
Double	(8 bytes) floating point
String	non-numeric data
Object	any object reference
Date	a date
Boolean	True / False
Byte	1-255

### Cell selection

select a single cell

```
Range("A1").Select
```

select a contiguous range

```
Range("A1:G5").Select
```

select a non-contiguous range

```
Range("A1:G5,J10:J15").Select
```

offset syntax (move from A1 to A2)

```
Range("A1").Offset(1,0).Select
```

select down to first empty cell

```
Range(Selection, Selection.End(xlDown)).Select
```

set a cell's value

```
Range("A1").Value = i
```

### deleting, moving, copying (VBA)

Delete entire row

```
Rows("2").Delete
```

Delete entire column

```
Columns("B").Delete
```

Copy / paste a range with destination

```
Range("A1:B6").Copy  
Destination:=Range("A1")
```

Clear a range

```
Range("D:D").Clear
```

### deleting, moving, copying (VBA) (cont)

Delete a worksheet

```
Worksheets("Sheet2").Delete
```

Execute a formula calculation in a range

```
Range("A1:A3").Formula = 2*2/6
```

Use RANGE to select single cells.

### Iterate through a selection

Dim cell As Range

For Each cell In Selection

...

Next cell

### Control structures VBA

**Do ... Until Loop**

Do [Until condition]

...

Loop

**Do ... While Loop**

Do [While condition]

...

Loop

**For...Next Loop**

For counter = start To end [Step s]

...

Next [counter]

### "WITH" syntax

With Worksheets("Sheet1")

.Rows

.Columns

...

End With

The "with" construction provides a shorthand way of accessing many properties and methods of the same object.

### String functions

InStr ([start], "string", "what\_to\_find") Returns position of string within a string

StrConv("string", vbProper|Upper|Lower Case) converts string to proper|upper|lower case

Left ("string", x) Return specified

Len ("string") Return length of string

Trim ("string") Trims string of leading and trailing spaces

Split("string", ",") Split string by delimiter e.g. comma

Val("string") Return numerical part only

StrComp("strA", "strB", vbTextCompare) Compare two strings (0=true)

### VBA information functions

IsArray

IsEmpty

IsError

IsMissing

IsNumeric

IsNull

IsObject