Excel VBA – Why are we learning this?

Alright, it is time to learn a new programming language! Introducing Excel Visual Basics for Applications (VBA). Do note that we are making a distinction here between VBA and Excel VBA.

VBA works on a number of Microsoft products (eg. Access, Excel, Word, Outlook, and PowerPoint). However, we are only interested in VBA for Excel.

What is Excel VBA?

Excel VBA is a programming language (that is included when you install Excel) that enables you to control just about anything in Excel.

Some uses of Excel VBA includes:

- Automating report generation
- Automating chart creation
- Performing data processing
- Automating communication between Microsoft Excel and databases
- Building professional grade dashboards and interfaces
- Performing analysis tasks (modeling, optimization...)
- Communicating with Web pages to retrieve information
- Building self-running programs (like a trading game! We will see that later)
- Visualising data using cells and drawing shapes
- Integrating data from a variety of different data sources making them act like one

Why do we need VBA in this course?

We need to clean and process data. Think about all that we've done in excel in the first data management chapter. Now what if we have a million rows of data with 1,000 errors? Imagine manually scanning and cleaning them all.

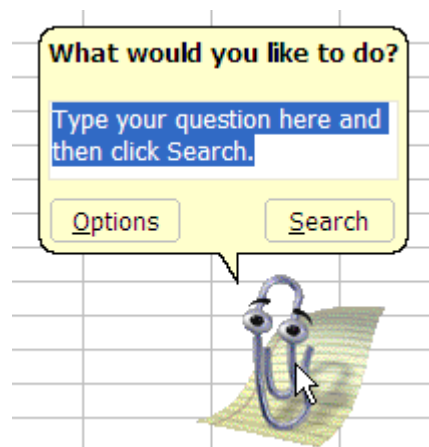This automation is required as we cannot afford to clean a million rows of data manually.

What do we need to know about Excel VBA to achieve our goal?

In simpler words:

You need to know how VBA "talks" to excel, basic syntax of VBA, If statements and loops.

In technical terms:

- Setting up Developer Tab
- Setting up Macros
- Referencing Sheets and Cells
- VBA Syntax
- Variables and Data Types
- Expressions
- Worksheet Functions
- Conditionals (If statements)
- Loops
- Debugging
- Macro Recorder

Do we need prerequisites to learn VBA?

You need to know basic Excel. We are not going to go through that in this course (other than what we already went through in the first Data Management Chapter).

Here are some resources for you to self-learn:

- http://www.excel-easy.com/basics.html
- http://www.gcflearnfree.org/excel2016/
- https://excelexposure.com/

I suggest you briefly scan through the materials to get a basic overall understanding of Excel. Then move on with Excel VBA.

Here are some stuff you should know about Excel before proceeding:

- How to format cells
  - Data Categories (Number, Data, Currency etc)
- Excel Formulas
  - Math formulas (Sum, Sumif, Product etc)
  - Count, Countif
  - Match, Index

That's all! You do not need to know Excel very well to learn Excel VBA. Besides, if there is anything about Excel that you are unsure of when learning Excel VBA, you can always go back and revise that portion.