

# Project Guide (Excel VBA Course)

Below is an overview of the list of projects and macros inside the course. Use this to quickly find your Macro:

	Purpose	Description	Location
1	Use Go-to special to easily work with special cells	Use macro recorder to highlight or work with special cells (e.g. cells that have comments, are empty, have formulas, constants etc.)	Section 2
2	Copy data from one sheet to the bottom of a summary data table	Use macro recorder to copy data from one or more sheets and paste on the bottom of the summary sheet (consolidate data).	Section 2
3	User interface – how to run macros	Learn all the different methods to run your macros or VBA code. Methods 6 & 7 are my favorite.	Section 2
4	Copy & Resize variably sized ranges	Different methods to copy and paste ranges including ranges that expand.	Section 4
5	Save hardcoded (backup) copy of Workbook	A good method to back up your files: quickly save a hard-coded copy of your current Workbook (replaces all formulas by values and saves a copy).	Section 4
6	Save hardcoded “xlsx” copy of Workbook (remove VBA code)	Saves a hard-coded version (formulas are replaced by values) and saves files as macro free (xlsx files).	Section 4
7	Change Font & Formatting a variably sized range	Update the font and adjust formatting of cells.	Section 6
8	Protect & Unprotect all sheets in one go	Protect & Unprotect all sheets in a Workbook - or apply exceptions for special sheets are required. Also learn to protect but leave certain options open (like formatting).	Section 6
9	Copy data with exceptions	Check for values / errors and decide if data should be copied or not. Learn to work with complex IF and conditional statements.	Section 6
10	Count the number of formulas in a Worksheet	Later we expand on this by learning how to count the number of comments, formulas etc inside the whole Workbook and also how to document them in one place (Sections 8 and 17).	Section 6
11	Message Box in Excel	Quickly create a Message Box that informs the user (and also gets some feedback like “Yes”, “No”, “Cancel”.	Section 7
12	Input Box with VBA	Quickly create an Input Box dialog box for the user to input values / text.	Section 7
13	Input Box that selects ranges	Create an input box and allow the user to select one or more cells. (You also learn how to use VBA functions to count blank and non-blank cells)	Section 7
14	Faster Code execution	Optimize your code and make it run faster.	Section 8
15	Error Handling	Add Error Handling procedures to improve user-friendliness of your macros and optimize your code.	Section 8
16	Split Text and Numbers to different cells	Use looping to loop through a range and split the text and numbers to two separate cells (we learn how to create a customized formula for this in Section 19).	Section 10

	Purpose	Description	Location
17	Find One or Multiple Matches	Use FIND and DO to look for and document multiple matches.	Section 10
18	Document all Comments inside a Workbook in one place	Find all the comments inside a Workbook and create a report that documents it all in one place. The report includes the comment description, the cell & sheet address and the Author's name.	Section 10
19	Timer to time code and Speak method	Add a timer to your code to measure execution time (which can help you decide which version is faster). Also learn how to use the speech.speak method to get your macro to actually speak.	Section 10
20	Manipulate a Large range fast	Use Variant Arrays instead of looping to manipulate a large range in VBA and write back in one go to your Excel sheet.	Section 11
21	Create a Workbook with customized sheets and tab names	Use 2 dimensional arrays to quickly create a Workbook that includes tab names as well as sheet headings from a pre-defined table.	Section 11
22	Check if a File or Folder exists	Use the DIR Function to check whether a file or folder exists inside the directory.	Section 12
23	Use Excel's Open dialog box to allow the user to select a file and import data	Use GetOpenFileName method and allow the user to select a file. The macro then imports the data from the file selected into the active Workbook. (Bonus macro included to allow the user to type in the name of the sheet they would like to import data from). For Multiple Selection check out the Regional Sales tool.	Section 12
24	Loop inside a folder (Allow the user to pick the folder)	Use FileDialog property to bring up a dialog box that allows the user to select a folder. The macro then loops inside the folder to get specific files (these files can be opened and data imported in one go)	Section 12
25	Create CSV files	Automatically create a CSV file from an Excel sheet (also adjust the data for the CSV file by removing un-necessary ranges)	Section 12
26	Create customized CSV or Text files	Learn to create a text file from scratch and write data inside the text file as required (for example use a pre-defined de-limiter ";" instead of ",")	Section 12
27	Excel Formulas in VBA tools	How to use Excel formulas inside VBA. How to replace part of a formula or update existing formulas in one go.	Section 13
28	Properly reference Excel Tables in VBA	How to properly work with Excel Tables in VBA. (For more practice reference the Regional Sales tool)	Section 13
29	Pivot Tables in VBA	How to work with Pivot Tables in VBA. How to create a Pivot Table, update formatting and change a Pivot Tables cache. How to refresh PivotTables (Section 16 shows how you can automatically refresh Pivot Tables)	Section 13
30	Create PDF Document	How to save specific tabs as a PDF document	Section 15
31	Create customized letters in Microsoft Word	Automatically customize a Word file template to loop through an Excel table and add the name of the person as well the amount sold to the Word template. The Word file is then saved with the person's name.	Section 15
32	Copy Excel ranges to Microsoft Word	Bonus Macro provided to allow the user to highlight a range and automatically paste this in a new Word document.	Section 15
33	Create Emails to multiple people with different attachments	Automatically create emails using your default email provider to create multiple emails to different people and attached different Worksheets as separate Workbooks to the emails.	Section 15

	Purpose	Description	Location
34	PowerPoint Presentation with one Click	Create a macro that sends the contents of your tabs to separate slides in PowerPoint. Best part is, if you have an existing presentation open, the contents are added at the bottom of the presentation (Quick way to add an appendix).	Section 15
35	Run macros when Workbook is opened	Learn to work with Excel's Workbook events to execute certain macros the moment a Workbook is opened. For example, you can restrict the scroll area and update view settings.	Section 16
36	Toggle full-screen and normal view mode	Toggle view to quickly switch between full-screen and normal view. Hide tabs, formula bar, row and column headings, etc.	Section 16
37	Run Macro if a cell or a range is selected	Worksheet Selection Change event to execute a macro once a cell is selected. For example, to highlight the text and update the formatting of the selected cell or range.	Section 16
38	Automatically Refresh Pivot Tables	Create an event that automatically refreshes your Pivot Tables when data is added to the source. (Also learn to use the Intersect method to only run events if certain cells are updated)	Section 16
39	Reset dependent data validation list when the first validation list is changed	Use Excel's Change Event Procedure to reset the value of a dependent drop-down data validation list, the moment the first drop-down is changed. (Default Excel behavior does not reset the dependent list).	Section 16
40	Link Page Header to Cell Value	Macro that creates dynamic page headers by linking the header to a value in a cell (use a similar technique for a dynamic footer).	Section 16
41	ActiveX buttons	Create an ActiveX button that inserts Worksheets.	Section 17
42	ActiveX checkbox to toggle full-screen mode	Learn to use ActiveX checkboxes in VBA. This specific example switches between full-screen and normal view.	Section 17
43	Create "Help" for your tools	Use an ActiveX check box to view Help or Steps needed for your macros. This simple feature improves the user-friendliness of your tools. It uses a check-box together with shapes to achieve this effect.	Section 17
44	Easy Worksheet navigation with ActiveX combo box.	Improves the navigation of your larger Workbooks by adding a drop-down list which includes the names of all Worksheets. Once selected, the user is taken to the selected sheet. Best part is, once a Sheet is added, renamed or deleted, the combo box is automatically updated.	Section 17
45	Hide / Show ActiveX controls	This project shows you how to control the visibility of ActiveX elements based on a condition and how to work with standard Excel functionality to create impressive reports.	Section 17
46	Create an Input UserForm to add data to the bottom of an Excel Table	Learn to create and work with User Forms. Work with Check boxes, Input boxes and labels. Also learn how to create modeless forms so you can work inside Excel when your form is open in the background.	Section 17
47	UserForm with Combo box to document External Links and Comments	Create a User Form that documents all comments inside a Workbook in a separate sheet (or a separate Workbook). The report includes the comment content, the cell address and the author. In addition to this the user can choose to document all external links to other files. The report includes the link together with the cell address.	Section 17

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48	Create custom Functions to calculate time passed	Learn to create custom functions to calculate the age or time passed since a certain date. Create functions with one or more arguments and learn to use these functions inside sub procedures.	Section 19
49	Custom Function that splits Text and Numbers	Create a custom function that strips out the text portion of a cell and another custom function that strips out the numeric portion of a cell.	Section 19
50	Custom Function that sums based on cell color	Create a custom function that adds the values inside cells based on their cell color. The custom function includes a separate argument where the user can pick the cell color they'd like to use.	Section 19
51	Custom Charts	Learn how to create custom charts. Use the macro recorder to get familiar with chart objects and adjust the macro to fit your purpose.	Section 20
52	Create animated charts	Create animated charts in VBA. Define the wait time for each animation.	Section 20
53	Charts in UserForms	Learn how to show a chart in a User Form. In the example we create a revenue report as a form and include the chart in the form.	Section 20

## Main Tools

Purpose	Description	Location
Automatically Create Table of Contents for your Workbooks.	By using the techniques learnt in sections 2 to 8, we create a tool that automatically inserts a Table of Contents for any Workbook (I show you how you can add this to your Personal Macro Workbook) so you can use this for your normal xlsx files.	Section 9
Regional Sales Reporting Tool	By using the new techniques learnt in sections 10 to 13 and building on everything we learnt prior to this, we create a regional sales reporting tool from scratch. The tool imports data from multiple Excel files, consolidates the data and generates two separate reports which are saved as separate Excel Workbooks. One Workbook, includes Pivot Tables and Slicers and another is a static report for management. Also learn how to create CSV files and an admin interface.	Section 14
Invoice Generation Tool	We use the new techniques learnt in sections 15 to 17 as well as everything else learnt prior to this, to create an invoice generation tool. We use UserForms and Excel Tables to maintain our customer master data. We learn how to create searchable lists by typing in a part of the name of the customer and getting a list of names that match our entry. We also learn how to automatically create invoices in both separate Excel as well as PDF files and how to create a draft email in Outlook that attaches the PDF version of our invoice.	Section 18