

Advanced Excel VBA

for Business and Industry

Entry Date	Cust
20-Aug	Custo
20-Aug	Custo
20-Aug	Custo
27-Aug	Custo
27-Aug	Custo
27-Aug	Custo

Pay Employee

Start Date: 8/20

End Date: 9/6

PDF

Email

Report

Employees:

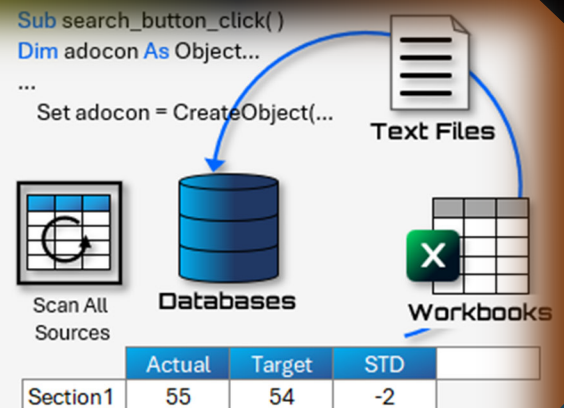
☒ Employee 1
☐ Employee 2
☒ Employee 3
☐ Employee 4
☒ Employee 5

Search

Unpaid


```

Sub run_pay_userform (
Dim uf As UserForm...
...
uf.lb_employ.List() = emp_array..
  
```



```

Sub lb_chart_DblClick( ...
Dim cht_type As String...
...
cht_type = lb_chart.Value
  
```


Add Chart

Candidates Position

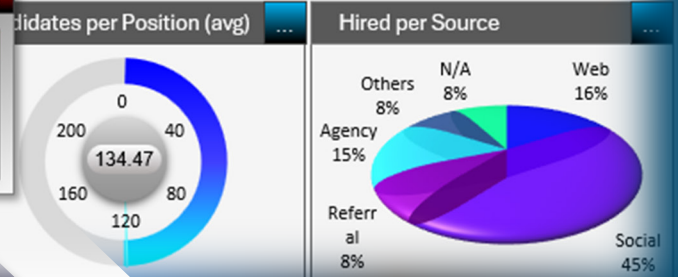
Time to Hire

Delay

Hired per Source


```

Sub add_chart( )
Dim cht As Chart...
...
L= ws_dash.Range("Cht1").Left
  
```

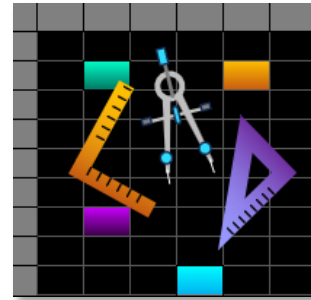


Unleash all the abilities of Excel and VBA to create powerful problem-solving apps.

Learn to combine Excel VBA's interface, analysis, data, and dashboard abilities to create advanced business apps.

How our class can help you.

Our 3-day class shows you hands-on how to combine VBA with Excel elements, userforms, and events to create advanced analysis, dashboard, and report generation tools..



[Class Examples >](#)

It covers advanced app essentials like tracking data ranges, controlling arrays, using events, and workbook / text file control. Advanced data processing, automated reporting, and creating chart reports are also discussed.

In addition, our class discusses in depth how to create advanced interfaces for your apps using VBA, userforms, ActiveX, charts, and other key Excel elements. Advanced modeling and analysis tools, dashboards and KPIs, and database control using ADO are also covered.

Who should attend the class?

Business, government, industry, military, engineering, science, techs... Class examples will be determined by those in attendance.

Minimum Excel skills needed for the class.

Select this Excel training if you or your group have:

- Used the Excel VBA language before
- Used variables, loops, and logic before and know how they basically operate
- Used objects, properties, and methods before in code to control a program
- Built basic worksheet formulas (=A1+A2) and used worksheet functions like SUM, MATCH, COUNTIF...
- Used Excel shapes and built charts manually
- Used Excel's data processing tools like Autofilter, Sort, Remove Duplicates, and PivotTables



How we run the class.

We focus our training on what our customers need. When training begins, we analyze those needs and shift our outline appropriately. We will stress or add topics that our customers want.

Class formats and signup.

In-Person, Virtually, and Onsite. Our live hands-on classes can be attended virtually or in-person. Please visit our public signup page for [class times and pricing >](#). Contact EMAGENIT directly at 805.498.7162 for more information about our onsites.

Key Excel topics covered in class.

- Tracking range configurations and controlling arrays in advanced VBA apps
- Controlling folders, files, workbooks, and the Windows Registry
- Advanced report generation using VBA, Excel's data tools, and PivotTables
- Using loops, logic, and functions to analyze complex datasets and fill tables and forms
- Using VBA to build / format advanced charts and layout multiple charts on a worksheet (chart report)
- Advanced VBA methods for creating, writing, reading, parsing, and cleaning text files
- Creating UIs for your Excel apps using the worksheet, ActiveX controls, shapes, and VBA
- Creating UIs for your Excel apps using userforms, ActiveX controls, events, and VBA
- Processing data in multiple folders, multiple workbooks, and worksheets
- Managing advanced model and analysis problems with Excel VBA
- Creating advanced dashboards on the worksheet using charts, shapes, events, ActiveX controls, and VBA
- Constructing advanced status and calendar tools with Excel VBA
- Using SQL, ADO, and UIs to query and integrate databases, workbooks, and text files

Detailed class syllabus.

Day-1

Finding Ranges, Using Arrays, and Tracking Objects

* This section discussed throughout the class when needed

- Using VBA to track various worksheet range configurations
- Loading and clearing arrays, sequencing arrays, and using ReDim
- Using Set, For...Each Next loops, CreateObject, and Getobject to track objects
- Using the Run method, concatenation, and logic to create macro calls on the fly
- Creating your own objects using Class modules, procedures, and public variables

Using VBA to Control Workbooks, Folders, Files, and the Registry

- Using OpenFileDialog to build a File/Folder picker for your app
- How to use VBA to create, move, copy, and delete folders and files
- How to control your workbooks in VBA using Open, Close, Add, SaveAs...
- Storing and retrieving workbook data in a multi-user, high demand environment
- Why store your program settings in the Windows Registry and not in your code workbook?
- Using GetSetting, SaveSetting, and DeleteSetting to write, read, and delete settings in the registry

Advanced Report Automation and Formatting Using Excel VBA

- Determining where worksheet tables start and stop using Range, CurrentRegion, Find...
- Looping Excel's data tools (AutoFilter, Sort, PivotTables...) to process large worksheet datasets
- Using VBA to copy, paste, and stack filtered data in different report worksheets
- Using Remove Duplicates and VBA to determine report sheet names from data
- Using loops, logic, and formulas to create summary rows / columns for report worksheets
- Using macros to format your worksheet tables and remove columns / rows

Processing Complex Worksheet Data Patterns with Excel VBA

- Processing bank, quick books, inventory... worksheet downloads with VBA
- Using the Math, Statistical, and Lookup functions in VBA to analyze worksheet data
- Inserting worksheet rows and columns in your data and filling them with formulas or values
- Using VBA and functions to perform table lookups and fill worksheet rows / columns
- Using loops and logic to delete and move worksheet data rows, cells, and columns
- Using VBA to read data and output it to various worksheet table configurations and forms

Advanced Chart Design and Automation

- Combining charts, shapes, and Conditional Formatting to make visual displays
- How to modify chart data ranges and assign data subsets to charts with VBA
- Using macros to create and format charts like xy scatter, column, doughnut, combo...
- Using VBA to create chart limit lines, color data points, hide /display series, build curve fits...
- Adding multiple tables to a chart using VBA
- Using VBA to create and arrange multiple charts on a worksheet

Advanced VBA Methods for Creating and Reading Text Files

- Automating Text Wizard in Excel VBA to load text data on the worksheet
- Using the TextStream object in Excel VBA to open, read, write, modify, and close text files
- Parsing, stacking, and processing worksheet text data with VBA
- How to use loops and string concatenation to assemble and write text data to text files
- How to use loops, logic, and arrays to access and load specific text file data onto a worksheet
- Using macros to clean and parse text file data using functions and Text to Columns

Day-2

Creating Advanced User Interfaces on the Worksheet

- Creating and positioning ActiveX controls on the worksheet
- Combining Data Validation and VBA to create advanced worksheet UIs

- Using worksheet Object modules to create ActiveX control events (Click, Change...)
- Controlling and reading worksheet ActiveX controls with VBA
- Using worksheet, workbook, and application events to run your UIs
- Running worksheet UI procedures at specific times using the OnTime method
- Using VBA, shapes, cells, and formats to build UI displays
- Combining your worksheet UIs with your project

Developing Advanced User Interfaces with VBA Userforms

- How to create userforms and place ActiveX controls, pictures, and text on them
- Launching and setting userforms with VBA; using modal vs. non-modal userforms
- Designing event procedures for userform ActiveX controls
- Controlling and reading userform ActiveX controls with Excel VBA
- Using Excel VBA to load and format list and combo boxes
- Designing a list or combo box to fill another list or combo box
- How to control multi-column and multi-select list boxes in your code
- Creating a Ribbon tab and its controls to run a userform
- How to turn your userform app into an Excel Add-In

Advanced Modeling and Problem Analysis with Excel VBA

- Filling downloaded data in model tables with VBA
- Controlling Excel tables and range names with Excel VBA
- How to use VBA to manage problem formulas in complex table configurations
- Calculating worksheet data in VBA using worksheet and VBA functions

- Using loops, logic, and names to collect multi-worksheet information, calculate it, and output it
- Using Excel VBA to copy worksheets, modify their formulas, and tie them into summary sheets
- Using names, logic, loops, and formulas to track and build models on the worksheet

Searching for Data in Multiple Workbooks, Worksheets, and Folders Using VBA

- Design strategies for naming workbooks and folders for large scale data storage and access
- Scanning open workbooks for a specific data set using For...Each Next loops, logic, and functions
- Searching multiple worksheets for a specific data set using For...Each Next loops, logic, and functions
- Accessing multiple folders for specific data workbooks using For...Each Next loops, logic, and functions

Day-3

Constructing Advanced Status and Calendar Tools with Excel VBA

- Why use the worksheet to build status and calendar tools?
- Looking up table headers in your code using MATCH, COUNTIF, Find...
- Simple worksheet strategies to track project status info in team workbooks
- Writing loops and logic to process project data from multiple workbooks
- Writing loops and logic to fill and color the cell data in your status dashboard
- Using Excel VBA to create and fill monthly and 2-week calendars with data

- Outputting timelines to the worksheet, making calendar controls

Assembling Advanced Worksheet Dashboards Using Excel VBA

- Review of the various dashboard types, metrics, benchmarks, and KPIs
- How to combine charts, shapes, and VBA to create various dashboard gages
- Using Data Validation, ActiveX controls, cells, and VBA to build dashboard controls
- Using VBA to create, write to, format, and position shapes and pictures on the worksheet
- Assigning macros to shapes and pictures on the fly with VBA
- How to turn shapes into hi-tech dashboard displays (i.e. timelines, factory layouts...)
- Creating various dashboard displays using VBA, cells, and formats

Using SQL, ADO, and UIs to Control Databases, Workbooks, and Text Files

- SQL language review for querying, inserting, updating, and deleting data
- How to use ADO and SQL to update, insert, delete, and query database data
- How to use ADO and SQL to query a worksheet table or text file and return a record set
- Combining ADO, SQL, loops, and functions to integrate data from different data sources
- Automating Power Query and Microsoft Query to query / integrate data from multiple sources
- Developing UIs to control database tasks