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The Modern Excel Scripts Programming



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Programming in Excel – Scripts

The Modern Excel

The Modern Excel

A customizable course according to your company's requirements.

Duration

8 hours

Objectives

- 1) Introduction to Excel Scripting
- 2) Excel VBA Fundamentals
- 3) Advanced VBA Programming
- 4) JavaScript Add-ins for Excel
- 5) Excel Automation and Integration
- 6) Real-world Applications and Case Studies
- 7) Q&A and Expert Panel Discussion

The course is totally hands-on. No theory! No PowerPoint presentation. Throughout the course you practice the skills on Excel. The exercises are based on real life data scenarios.

Pre-requisite

You must have worked on Excel for at least 12 months.



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Outline of Scripts Programming course:

The Modern Excel

1. Introduction to Excel Scripting

1.1 Overview of Scripting in Excel

- Understanding the role of scripting and programming in Excel.
- Introduction to the Excel Object Model.

1.2 Macro Basics

The Modern Excel

- Recording and running macros.
- Exploring the Visual Basic for Applications (VBA) editor.

1.3 Excel Scripting Languages

- Overview of VBA, Python, and JavaScript in Excel.
- Choosing the right scripting language for specific tasks.

2. Excel VBA Fundamentals

2.1 VBA Basics

- Variables, data types, and basic syntax in VBA.
- Procedures, functions, and subroutines.

2.2 Control Structures in VBA

- Using If-Then-Else statements.
- Implementing loops (For, Do-While) in VBA.

2.3 Excel Object Model in VBA

- Navigating and interacting with worksheets, cells, and ranges.
- Working with workbooks and worksheets using VBA.

3. Advanced VBA Programming

3.1 User Forms and Controls

- Creating and customizing user forms.

Table

Slicer

PivotTable

PivotChart

Interactive Dashboards

Data Model

DAX

Power Pivot

Power Query

Power BI

Excel Online



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- Adding and managing form controls.

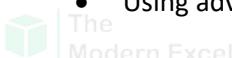


3.2 Error Handling in VBA

- Understanding error types in VBA.
- Implementing error handling techniques.

3.3 Advanced VBA Techniques

- Working with arrays and collections.
- Using advanced string manipulation and date functions.



4. JavaScript Add-ins for Excel

4.1 Introduction to JavaScript Add-ins

- Setting up the development environment.
- Overview of Office Add-ins and JavaScript API for Excel.

4.2 Excel Task Panes with JavaScript



- Creating custom task panes.
- Interacting with Excel data using JavaScript.

4.3 Excel Automation with Office.js

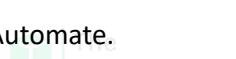
- Automating Excel tasks using JavaScript.
- Utilizing Office.js for advanced functionality.

5. Excel Automation and Integration



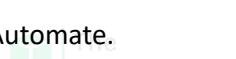
5.1 Web Scraping with Excel

- Introduction to web scraping techniques.
- Using Excel to scrape data from websites.



5.2 Integrating Excel with Other Applications

- Automation with external databases.
- Connecting to APIs and fetching data.



5.3 Power Automate and Excel

Automating workflows using Power Automate.

Integrating Power Automate with Excel.



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6. Real-world Applications and Case Studies

6.1 Building Custom Excel Solutions

- Developing practical solutions for specific business needs.
- Enhancing productivity with custom scripts and programs.

6.2 Advanced Data Analysis with Scripting

- Performing complex data analysis tasks with scripting.
- Creating custom reports and dashboards.

6.3 Troubleshooting and Debugging

- Strategies for troubleshooting and debugging scripts.
- Addressing common issues in Excel scripting.

7. Q&A and Expert Panel Discussion

7.1 Participant Questions and Discussions

- Applying all learned concepts to create a sample report.
- Addressing common challenges in report design

7.2 Leveraging Expertise

- Engaging with expert speaker.
- Gaining insights into advanced scripting techniques.