
XL1001 – Advanced Data Management and Analysis using Excel

DURATION: 2~3 Days; Instructor-led

WHAT YOU WILL LEARN

Despite the fact that database management is not the core functionality of Excel (Where Microsoft Access is), due to its features rich and user friendliness especially for non-technical users, often Excel users prefer to use it for daily operations in data management and analysis. This course shows you how to apply excel features in solving real-world business data management and analysis problems.

The course starts with introducing various error preventive techniques and features. Followed by showing participants how to use different ways of information retrieval. Lastly demonstrate the effective information visualization/presentation and automation in Excel. In short, after the course, the participants will be able to produce less error prone, well organized, highly maintainable, supreme Excel model.

At the end of the training the participants would learn/use/acquire the following techniques/knowledge:

- Error prevention techniques
- Data Management
- Information Retrieval techniques
- Organize the data from various sources
- Data Analysis techniques
- Data Validation
- Information Presentation
- Task Automation

AUDIENCE

Excel users who want to

- do reports (eg: Financial, Banking, Insurance, Pharmaceutical, Retail, Educational, small shops etc)
- perform data visualization

PREREQUISITES

Some knowledge of basic word processing, computing, and spreadsheets; familiarity with the Microsoft Office work environment; an understanding of the Internet and web-page functionality.

The course materials, lectures, and lab exercises are in English. To benefit fully from the instruction, students need an understanding of the English language and completion of the prerequisites.

METHODOLOGY

This program will be conducted with interactive lectures, PowerPoint presentation, discussions and practical exercise

TRAINING ENVIRONMENT

The training is based on MS-Excel 2007,2010 or newer versions

COURSE OUTLINES

Module 1 – Using Names

- What is Name? Let's give your data a meaning
- The advantages of using Names
- Name for single cell
- Name for literal value
- Name for expression
- Name for multi-cells range
- Name Scoping, ambiguity and conflict resolution
- Modify Name
- Delete Name

Module 2 – Using Table Features

- Creating a Table object
- Delete Table
- Change Table Name
- Sorting a Table
- Filtering a Table
- Working with the Total Row
- Creating a Calculated Column
- Formatting a Table
- Referring to different parts of table

Module 3 – Working with Formatting

- Applying Conditional Formatting
- Formatting based on Cell values
- Formatting based on Formulas
- Other Conditional Formatting (bars, scales, icons)

Module 4 – Working with Data Validation

- Using Data Validation
- Entry guide
- Custom Error Message
- Creating and Using Custom Formats
- Using the Quick Analysis Tool
- Using Table for Validation
- Exception cases where data validation will fail

Module 5 – Prevent invalid entry with Controls

- What is Controls
- Problems with text entry.
- Handle Yes/No value with Check-Box
- Select one out of many with Radio-Button
- Use Combo-Box and List-Box
- Increase and decrease value with Spin Button
- Techniques to hide cell values
- Techniques to prevent user direct data entry
- Different between Form and ActiveX Controls

Module 6 – Important Functions

- Information Retrieval with functions
- TEXT Functions
- IF* and IS* functions
- LOGICAL Functions
- VLOOKUP and HLOOKUP functions
- COUNT related Functions
- SUM related functions
- DATABASE functions
- DATE & TIME functions
- Other Useful functions

Module 7 – Data Filtering and Grouping

- Auto Filter – Filter By Color, Filter by Icon Sets
- Advanced Filter
- Remove Duplicates
- Built-In Subtotal
- Data Grouping

Module 8 – Data Consolidation

- Pulling data together
- Consolidate based on data Position
- Consolidate based on data labels and headers
- Pivot-Report consolidation

Module 9 – Data Visualization

- Creating Charts
- Changing the Chart Location and Size
- Changing the Chart Type
- Modifying Chart Elements
- Formatting Chart Elements
- Adding and Removing Data Series
- Printing Charts
- Creating and Using a Chart Template
- Sparkline

Module 10 – Advanced Information retrieval with PivotTable

- Create a PivotTable
- View fields and data
- Change field settings
- Styles
- Filter a field
- Creating PivotChart Reports
- Calculated Fields
- Calculated Items
- Grouping
- Formatting – Number/Conditional
- Slicer
- Slicing simultaneously multiple Pivot Tables
- PivotChart
- Presenting reports using dashboard techniques

Module 11 – Decision making with What-If Analysis

- Goal Seek
- Scenario Manager
- Data Tables
- Solver

Module 12 – Macros and VBA

- Automation with Macros
- Macros Recording and Playback
- Macros editing
- Introduction to VBA
- VBA: Macro
- VBA: Custom Functions
- VBA: Worksheet Events handling
- VBA: Workbook Event handling
- VBA: ActiveX Controls
- VBA: User Forms
- VBA: Class Modules