EXCEL - VBA

1. SETTING THE STAGE IN EXCEL

2. MACRO RECORDER IN EXCEL

- Preparation
- Name
- Use
- Relative / Absolute referencing
- Location
- Use of Personal.xls(b)

3. VISUAL BASIC EDITOR

4. WRITING VBA

- Language
  - Modules = chapters
  - Procedures = paragraphs
  - Code lines = sentences
  - Statements
  - Declarations
  - Operators
  - Keywords
- Coding Components
  - Functions and subprocedures or routines
  - Objects
  - Methods
  - Properties
  - Variables
  - Scope
- Syntax
  - Punctuation & references
  - Application.Workbooks("Book1.xlsx").Worksheets("Sheet1").Range("A1")
  - Worksheets("Sheet1").Range("A1")
  - Range("A1")
  - Comments
  - line breaks
  - Worksheets("Sheet1") or Worksheets(1)
- Handling Code
- Links

5. EXCEL OBJECT MODEL

- Functions and subroutines
- Objects
  - Collections
  - "Normal" Objects
    - Worksheet, Workbook, Sheet, Range
    - special type of variable that contains both data and codes
    - Range Object
    - Has its own methods and properties
  - hierarchy
- Methods
- Properties

6. WORKING WITH VARIABLES & OPERATORS

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- data types
- Declaring variables
- Constants
- Assignments
- Operators
- Converting variables
- Arrays
- Links

7. VB PROGRAMMING

- VBA subroutines
- Workbooks and worksheets
- Working with Ranges
- Statements
- Interactivity
- VBA functions
- Working with events
- Error Handling
- Recordsets

8. DEBUGGING

9. GOOD PRACTICES & STRATEGY

- Functional Analysis & Approach
- Scope
- Coding
  - Carefully choose names - have a naming convention
  - Use Option Explicit
  - Commenting & Documenting
  - Use macro recorder to generate code
  - Structure and Indentation
  - Group similar code - use With
  - Use of Call method and blocks of code
  - Use pointers / bookmark
  - Input / Processing / Output approach
  - Don't overuse Select
  - Reusable modules with functions and code blocks
- Reuse code
- User Interface
  - Application.ScreenUpdating = False | True
  - Application.DisplayAlerts = False | True
  - Application.Cursor=xlWait
  - Application.Cursor= xlDefault
  - Navigation
- Provide systematic error handling
- Implement versioning

10. TYPICAL SCENARIOS

11. ADD-INS

12. LINKS