Excel Automation Techniques with VBA

Course learning outcomes:

Developer Tab

- Macro repository
- Execution button

Visual Basic Editor

- Navigate the editor: keyboard shortcuts
- Project explorer, properties window, immediate window
- Insert modules

Best Practices

- Comments
- Indentation
- Eliminate hardcoded values

Personalisation Selections

- Option Explicit
- Foreground, background, and indicator colours
- Font and size

Autocomplete Code

- Intellisense Drop-Down Menu
- Autocomplete and roll back autocomplete

Execute Code

- Run entire subcommand
- Step through code
- Terminate execution

Macros

- Record macros
- Save personal macros and assigning CTRL + SHIFT + * shortcut

Object Oriented Programming

- Data types: integer, long, double, string, Boolean
- Declare variables
- Manipulating strings
- Decision making: If, Then, ElseIf, End If conditional statements
- Loops and nested loops

MS-Excel Objects

- Objects: application, workbook, worksheet, range, cell
- Cells(i,j) reference
- Populate and extract from cells and ranges

Debugging

- Step through code
- Immediate window
- Debug.Print

Performance Optimisation

- Screen updating
- Automatic calculation
- Time code execution

Practical Examples

- Use the above knowledge on practical examples