Microsoft Excel 103 Course

# 1. Excel Conditional Functions

## 1.1 Excel Name Ranges:

* Way 1: SUM through cell referencing (Address B5:B10 etc.)
* Way 2: SUM through cell name (Giving cell group a unique name)

## 1.2 Advantages/Disadvantages of Excel Name Range:

### Advantages:

* Gives better context and definition
* We can use inside any formulas
* We can use to navigate back to that data
* Quickly print the selection

### Disadvantages:

* Name Range is essentially an absolute reference
* Editing the Excel Name Range:

### Creating: Go to the name box

### Editing: Formulas > Defined Names > Name Manager > Select > Edit/Create/Delete

## 1.3 Excel’s IF() Function:

* Choose IF() Function: Formulas > Logical > IF
* IF() Function: Condition to Check, IF True, IF False

## 1.4 Nested Function:

* Multiple functions inside a logical function

## 1.5 Excel’s COUNTIF() Function:

* Count something with the given criteria

## 1.6 Excel’s SUMIF() Function:

* SUM something with the given criteria

## 1.7 Excel’s IFERROR() Function:

Show result if available else show something else

# 2. Excel Lookup Functions

## 2.1 Excel’s VLOOKUP() Function:

* Vertically look for match in a table and fill up the blank
* Restrictions: First Columns should contain the keyword we are searching for

## 2.2 Excel’s HLOOKUP() Function:

* Horizontally look for match in a table and fill up the blank
* Restrictions: First row should contain the keyword we are searching for

## 2.3 Excel’s INDEX() Function:

* Option 1: Look for specific row, column in a table and returns the value

## 2.4 Excel’s MATCH() Function:

* Allow to look for specific value in list(column) and returns the position

## 2.5 Combined INDEX() and MATCH() Function:

* Allows us to overcome the hurdle caused by Vlookup and Hlookup.
* More flexible, Less Resource Intensive and Fast
* Syntax: INDEX(MATCH())

## 2.6 Combined HLOOKUP() with MATCH() and LEFT() Function:

* Allows us to search horizontally for content
* Modify the restriction of selecting row number
* Syntax: HLOOKUP(MATCH(LEFT()))

## 2.7 Combined XLOOKUP() Function:

* Modified version of HLOOKUP() Functions with better error handling

# 3. Excel Text Based Functions

## 3.1 Excel’s LEFT(), RIGHT() and MID() Functions

## 3.2 Excel’s LEN() Functions

* Returns the length of the given input

## 3.3 Excel’s SEARCH() Functions

* Helps to search for specific character or term and returns its position

## 3.3 Excel’s CONCATENATE() Function and others

* Helps to add/concate two or more text/string segments

# 4. Excel Auditing

## 4.1 Tracing Precedents

* Formulas > Formula Auditing > Tracing Precedents
* Helps to see which cells are precedents of a particular cell

## 4.2 Tracing Dependents

* Formulas > Formula Auditing > Tracing Dependents
* Helps to see which cells are dependent upon a particular cell

## 4.3 Watch Windows

* Helps to watch a particular cell or group of cells, to see what changes occur in one of it due to other changes.

## 4.4 Showing Formulas

* To see, check and audit the formulas and values

# 5. Protecting Excel Sheets & Workbooks

## 5.1 Protecting Specific Cells & Sheet

* Select cells that can be changed & unlock them (If they’re locked)
* Add password to the current worksheet
* Review > Protect/Unprotect Worksheet

## 5.2 Protecting Structure of Workbook

* It helps to protect the structure of the workbook so no one can change structure or formulas
* Review > Protect/Unprotect Workbook

## 5.3 Workbook Password

* To encrypt the file
* File > Info > Protect Workbook > Encrypt with Password

# 6. Excel’s What If Analysis Tool

## 6.1 Excel Goal Seek Tool

* Allows us to modify the required goal/code as per our needs
* Data > Forecast > What If Analysis > Goal Seek

## 6.2 Excel Solver Tool

* Allows us to solve a question with constraints and multiple changes unlike Goal Seek
* Data > Solver (Need to activate the Add-In)

## 6.3 Effective Data Tables in Excel

* Data Table allows us to modify a parameter by picking up values from table columns/rows
* Data > Forecast > What If Analysis > Data Table

## 6.4 Excel Scenario Manager

* Scenario manager allows us to create multiple scenarios as per the needs
* Saves time from creating multiple sheets or windows, we can toggle in between
* Data > Forecast > What If Analysis > Scenario Manager

# 7. Automating with Excel Macros

## 7.1 Creating Macros with Macro Recorder

* Turn On Developer > Code > Record Macro > DO THE WORK > Stop Recording

## 7.2 Modifying Macros with VBA

* Developer > Code > Visual Basic Editor > Modules > Select Macro > Edit/Modify

## 7.3 Applying Macros

* Developer > Code > Macros > Select Macro > Run