

## Excel Assignment - 18

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1. What are comments and what is the importance of commenting in any code?

Ans =>

- a) **Understanding:** Comments serve as a common form of documentation, helping programmers understand the purpose and functionality of different parts of code.
- b) **Communication:** comments also serve as a means of communication between team members.
- c) **Educational purposes:** Comments can be educational for junior developers or newcomers to a project. They can provide explanations of coding patterns.
- d) **Debugging:** when troubleshooting issues or maintaining code, comments are invaluable.

2. What is Call Statement and when do you use this statement?

Ans =>

- a) **Calling a Function:** you can use functions to perform calculations, manipulate data or retrieve information. To use a function, you can typically enter it in a cell and provide the necessary arguments.
- b) **Calling a Macro:** Macros are sequences of instructions that can be triggered to automate tasks. You can call or run a macro using various methods, including buttons, keyboard shortcuts, or through other macros.

3. How do you compile a code in VBA? What are some of the problems that you might face when you don't compile a code?

Ans => Press "Alt + F11" to open in Excel, select the module or project that contains your code. Click "Debug" menu. Choose "Compile".

**Problems that you might face when you don't compile your code include:**

- a) **Syntax Errors:** typos or mistakes in the syntax of your code can lead to syntax errors.
- b) **Mismatched Data Types:** VBA is a loosely typed language, but certain operations may still require compatible data types.
- c) **Missing references:** if your code relies on the external libraries or references, not having these references set up correctly can result in compilation errors.
- d) **Undefined Variables or objects:** if you use variables that haven't been declared or defined you may encounter errors during compilation.

4. What are hot keys in VBA? How can you create your own hot keys?

Ans=> Hotkeys in VBA refers to keyboard shortcuts that you can assign to specific actions or macros.

**Assigning a Hotkey to a Macro:**

- 1) **Open the VBA Editor:** press "Alt + F11" to open Editor in excel
- 2) **Navigate to the Macro:** In the VBA editor locate the module or sheet where your macro is stored.
- 3) **Assign a Hotkey:** Right-Click on the macro you want to assign a hotkey to. Choose "Properties" from the context menu. In the "Procedure" dropdown, select the macro for which you want to create a hotkey. In the "Shortcut key" field, enter the desired key. Click "OK" save and then change.

5. Create a macro and shortcut key to find the square root of the following numbers  
665, 89, 72, 86, 48, 32, 569, 7521.

Ans=>

- a) Open Excel and press "Alt + F11" to open the VBA Editor.
- b) In the VBA editor click on "Insert" in the menu and choose "Module" to insert a new module.
- c) VBA code is

```
Sub CalculateSquareRoots()
```

```
    ' Array of numbers for which square roots will be calculated
```

```
    Dim numbers As Variant
```

```
    numbers = Array(665, 89, 72, 86, 48, 32, 569, 7521)
```

```
    ' Loop through each number, calculate square root, and display a message box
```

```
    For Each num In numbers
```

```
        MsgBox "Square root of " & num & " is " & Sqr(num), vbInformation, "Square Root"
```

```
    Next num
```

```
End Sub
```

- a) Close the VBA Editor.
- b) To assign a shortcut key: Press ' Alt+F8 ' in the "Macro", select "CalculateSquareRoots" from the list, click "Options", enter a letter "Shortcut Key" and then click "OK" to choose dialogs.

6. What are the shortcut keys used to

- a. Run the code
- b. Step into the code
- c. Step out of code
- d. Reset the code

Ans=>

- a) Run a code: press "F5" to run the entire code.
- b) Step into the code: Press "F8" to continue running the code until it returns from the current procedure.
- c) Step out of the code: Press "shift + F8" to continue running the code until it returns from the current procedure.
- d) Reset the Code: Press "Ctrl + Break" to stop the execution of the code.