**Excel Assignment - 17**

1. What are modules in VBA and describe in detail the importance of creating a module?

Answer: Code Modules allow us to store regular macros (sub procedures) and functions (User Defined Functions, UDFs).  This is the typical place where we start writing and storing our macros.  The macro recorder also creates code in a code module. Different type of macros are:

* Code Modules – The code modules are the most common place we store macros.  The modules are located in the Modules folder within the workbook.
* Sheet Modules – Each sheet in the workbook has a sheet object in the Microsoft Excel Objects folder.  Double-clicking the sheet object opens its code module where we can add event procedures (macros).  These macros run when the user takes a specific action in the sheet.
* This Workbook Module – Each workbook contains one This Workbook object at the bottom of the Microsoft Excel Objects folder.  We can event based macros that run when the user takes actions in/on the workbook.
* Userforms – Userforms are interactive forms or windows where we can add controls like drop-down menus, list boxes, check boxes, buttons, etc.  Each userform is stored in the Forms folder and has a code module where we can put macros that will run when the form is open, and/or the user interacts with the controls on the form.
* Class Modules – Classes are stored in the Class Modules folder and allow us to write macros to create objects, properties, and methods.  Classes can be used when we want to create custom objects or collections that don't exist in the Object Library.

1. What is Class Module and what is the diﬀerence between a Class Module and a Module?

Answer: Class Modules – Classes are stored in the Class Modules folder and allow us to write macros to create objects, properties, and methods.  Classes can be used when we want to create custom objects or collections that don't exist in the Object Library.

A class module is a type of module. We can use this type like any other type (String, Integer, Date, FileInfo ...) to declare variables, parameters, properties, and function return types. A class is more of a unit, and a module is essentially a loose collection of stuff like functions, variables, or even classes.

1. What are Procedures? What is a Function Procedure and a Property Procedure?

Answer: A procedure is a block of Visual Basic statements enclosed by a declaration statement (Function, Sub, Operator, Get, Set) and a matching End declaration. All executable statements in Visual Basic must be within some procedure.

A property procedure is a series of Visual Basic statements that manipulate a custom property on a module, class, or structure. Property procedures are also known as property accessors.

A Function procedure is a series of Visual Basic statements enclosed by the Function and End Function statements. The Function procedure performs a task and then returns control to the calling code. When it returns control, it also returns a value to the calling code.

1. What are Procedures? What is a Function Procedure and a Property Procedure?

A procedure is a block of Visual Basic statements enclosed by a declaration statement (Function, Sub, Operator, Get, Set) and a matching End declaration. All executable statements in Visual Basic must be within some procedure.

A property procedure is a series of Visual Basic statements that manipulate a custom property on a module, class, or structure. Property procedures are also known as property accessors.

A Function procedure is a series of Visual Basic statements enclosed by the Function and End Function statements. The Function procedure performs a task and then returns control to the calling code. When it returns control, it also returns a value to the calling code.

1. What is a sub procedure and what are all the parts of a sub procedure and when are they used?

Answer: A Sub procedure is a series of Visual Basic statements enclosed by the Sub and End Sub statements. The Sub procedure performs a task and then returns control to the calling code, but it does not return a value to the calling code.

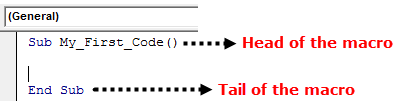
Sub means Sub Procedure in VBA. Sub Procedures are used to perform a specific set of tasks provided in the form of code. It performs only the task mentioned in the code as per the VBA language but does not return any value.Parts of sub procedure:

Step 1: Start the word “Sub” in the module.

Step 2: Now name the macro name or procedure name.

Step 3: After giving the name to the sub procedure, just hit the enter key. It will automatically apply the end statement.

Now, we can see two things here, one is the start, and another is the end of the sub procedure. For better understanding, we can call it “Head” and “Tail.”



Between the head and tail of the macro, we need to write our code to perform some tasks.

1. How do you add comments in a VBA code? How do you add multiple lines of comments in a VBA code?

Answer:

Adding Single Line comment in VBA

Step 1: Click on the line where you want to insert a comment.

Step 2: Type an Apostrophe( ‘ ) at the start of a line.

Step 3: Write the comment you want.

Step 4: Press Enter and you fill find the comment written to be green.

We can add comments in multiple lines. We use multi-line comments when we have to add points in our description or the description is long.

Step 1: Keep your cursor on the Tool Bar.

Step 2: Right-click on the Tool Bar and click on edit. An extended Tool Bar appears. Drag and place it in the already existing Tool Bar.

Step 3: Select the text you want to comment on and click on Comment Block. The entire selected text got commented.

1. How do you add comments in a VBA code? How do you add multiple lines of comments in a VBA code?

Answer:

Adding Single Line comment in VBA

Step 1: Click on the line where you want to insert a comment.

Step 2: Type an Apostrophe( ‘ ) at the start of a line.

Step 3: Write the comment you want.

Step 4: Press Enter and you fill find the comment written to be green.

We can add comments in multiple lines. We use multi-line comments when we have to add points in our description or the description is long.

Step 1: Keep your cursor on the Tool Bar.

Step 2: Right-click on the Tool Bar and click on edit. An extended Tool Bar appears. Drag and place it in the already existing Tool Bar.

Step 3: Select the text you want to comment on and click on Comment Block.

The entire selected text got commented.