Excel Assignment – 17

(Note - 2 Questions are same and repeated in this assignment)

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

   VBA module is a ". bcf" extension file that holds the code in the visual basic editor. Each module has its own code window where you can write. You can insert a new module, delete, backup, and import it.

   There are actually 5 different modules where we can store VBA code in a workbook

1. **Code Modules** – The code modules are the most common place we store macros. The modules are located in the modules folder within the workbook.
2. **Sheet Modules** –These macros run when the user takes a specific action in the sheet.
3. **This Workbook Module** – We can event based macros that run when the user takes actions in/on the workbook.
4. **Userforms** – Userforms are interactive forms or windows where we can add controls like drop-down menus, list boxes, check boxes, buttons, etc.
5. **Class Modules** – Classes are stored in the Class Modules folder and allow us to write macros to create objects, properties, and methods.

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

   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 is more of a unit, and a module is essentially a loose collection of stuff like functions, variables, or even classes. In a public module, classes in the project have access to the functions and variables of the module. You don't have to specify the module name to address one.

   The main difference between classes and modules is that classes can be instantiated as objects while standard modules cannot. Because there is only one copy of a standard module's data, when one part of your program changes a public variable in a standard module, any other part of the program gets the same value if it then reads that variable. In contrast, object data exists separately for each instantiated object. Another difference is that unlike standard modules, classes can implement interfaces.

3. **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.

Function Procedure

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. A Function procedure can take arguments, such as constants, variables, or expressions, which are passed to it by the calling code.

Property 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.

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

   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.

   Each time the procedure is called, its statements are executed, starting with the first executable statement after the Sub statement and ending with the first End Sub, Exit Sub, or Return statement encountered.

A Sub procedure can take arguments, such as constants, variables, or expressions, which are passed to it by the calling code.
It is different from function in the sense that it does not return a value as a function does. A sub procedure is usually used to accept input from the user, display information, print information, manipulate properties or perform some other tasks.

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

Add a comment in a VBA Code

1. First, click on the line where you want to insert the comment.
2. After that, type an APOSTROPHE using your keyboard key.
3. Next, type the comment that you want to add to the code.
4. In the end, hit enter to move to the new line and the comment will turn green.

Add Multiple line comments In VBA Code

Step 1: Select the Statements from code.

Step 2: Click on View -> Toolbars -> Customize.

Step 3: From Customize Window Click on Commands -> Edit, then select Comment Block.