Advance Excel Assignment 20

1. What are the types of errors that you usually see in VBA?

Ans:- There are three types of errors which we usually see in VBA which are mentioned below:-

1. **Syntax Errors:-** Syntax errors are those that appear while we write code. Syntax errors are the most common type of errors. we can fix them easily in the coding environment as soon as they occur.
2. **Run-time errors** :- Run-time errors are those that appear only after we compile and run our code. These involve code that may appear to be correct in that it has no syntax errors, but that will not execute. We can fix most run-time errors by rewriting the faulty code or by using exception handling, and then recompiling and rerunning it.
3. **Logic errors:-** Logic errors are those that appear once the application is in use. They are most often faulty assumptions made by the developer, or unwanted or unexpected results in response to user actions.

2. How do you handle Runtime errors in VBA?

Ans:- Runtime errors occur as our macro runs, and typically result from specific conditions present at that time. For example, if we prompt the user for a host name, and attempt to connect to that host, but the host is not available, the Connect method fails and Visual Basic generates a runtime error.

we should always include some form of error handling in our macros to deal with runtime errors. Without any error handling, a runtime error causes a macro to stop immediately, and gives the user little information.

To deal with runtime errors, we will need to trap (catch) the errors, handle them, and then resume execution after the error is handled.

3. Write some good practices to be followed by VBA users for handling errors

Ans:- some best practices we can use when it comes to error handling in Excel VBA.

- Use 'On Error Go [Label]' at the beginning of the code. This will make sure any error that can happen from there is handled.
- Use 'On Error Resume Next' ONLY when we are sure about the errors that can occur. Use it with expected error only.

- When using error handlers, make sure we are using Exit Sub before the handlers. This will ensure that the error handler code is executed only when there is an error (else it will always be executed).
- Use multiple error handlers to trap different kinds of errors. Having multiple error handler ensures that an error is properly addressed. For example, we would want to handle a 'type mismatch' error differently than a 'Division by 0' run-time error.

4. What is UDF? Why are UDF's used? Create a UDF to multiply 2 numbers in VBA

Ans:- UDF:- the full form of UDF is a user defined function that can be used in the worksheets just like regular functions.
These are helpful when the existing Excel functions are not enough. In such cases, we can create our own custom User Defined Function (UDF) to cater to our specific needs.

Code to multiply two number is:-

```
Function Mul() As Double
    Application.Volatile
    Dim C As Integer
    C = Application.Caller.Column
    Mul = Cells(11, C).Value * Cells(115, C).Value
End Function
```