Excel Assignment – 20

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

   VBA errors can be classified into three types: Syntax errors, Compile errors, and Runtime errors1. Syntax errors occur when a specific line of code is not written correctly. Compile errors happen when putting together lines of code, though the individual lines of code seem to make sense. Runtime errors occur when the code is usually correct in principle, but an action taken by the user or the data being used leads to unexpected errors

2. **How do you handle Runtime errors in VBA?**

   When writing VBA code, it’s important to anticipate, detect, and resolve runtime errors. Runtime errors are errors that occur during code execution. Examples of runtime errors include referencing a non-existent workbook, worksheet, or other object (Run-time Error 1004), invalid data ex. referencing an Excel cell containing an error (Type Mismatch – Run-time Error 13), attempting to divide by zero, etc. The VBA On Error statement is used for error handling.

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

When writing VBA code, it is important to anticipate, detect, and resolve errors that may occur during code execution. Here are some best practices for error handling in VBA:

1. Use the `On Error GoTo` statement at the beginning of the code to handle errors.
2. Use unique handlers for different error types.
3. Put all handlers (jump labels) at the end of your code block.
4. Use `On Error Resume Next` only when you’re sure about the errors that can occur.
5. Use it with expected error only.

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

   A **User-Defined Function (UDF)** is a custom function that can be created in VBA to perform a specific task. UDFs are used to extend the functionality of Excel by allowing users to create their own functions that can be used in formulas, just like built-in functions. UDFs can be used to perform complex calculations, manipulate data, and automate repetitive tasks.

```
Function MultiplyNumbers(num1 As Double, num2 As Double) As Double
    MultiplyNumbers = num1 * num2
End Function
```

This function takes two numbers as input and returns their product. To use this function, you can simply call it from a cell in your worksheet like this: `=MultiplyNumbers(2, 3)`. This will return the value `6`.