Q1. What are Userforms? Why are they used? How to fill a list box using for loop.

Ans: A UserForm is basically a pop-up window that you can use to create a custom interface for Excel.

This pop-up window allows you to have a more user-friendly interface and to automate Excel in many ways using VBA and macros. In the pop-up window, you can have many different kinds of buttons, user input areas, and layouts.

A UserForm creates a visual interface but, behind it all, is the code that runs it, the VBA and macros. When you click a button within a UserForm, you are causing a piece of code to run. This code can be placed wtihin the UserFrom itself or within regular modules with other macros. This particular concept might be confusing for now, but keep reading the tutorials and you will quickly understand the concept.

The VBA UserForm is a very useful tool. It provides a practical way for your application to get information from the user.
If you are new to UserForms you may be overwhelmed by the amount of information about them. As with most topics in VBA, 90% of the time you will only need 10% of the functionality.

list box using for loop

Now we'll take our loop and fill the box. How can we accomplish this? Well, take a look.

If you had ListBox1.Items.Clear()earlier, you very likely have a method called Add here:

ListBox1 .Items.Add(i);

Notice the list of methods that you can run that pops up as you type. You can clear away the items in the list or you can add to them. You can put an item inside the list, then put in i and close with a semicolon.

Q2. What is an array? Write a VBA code to enter students and their marks from the below table.

Ans: An array is defined as a memory location capable of storing more than one value. The values must all be of the same data type. Let's say you want to store a list of your favourite beverages in a single variable, you can use VBA array to do that.

By using an array, you can refer to the related values by the same name. You can use an index or subscript to tell them apart. The individual values are referred as the elements of the Excel VBA array. They are contiguous from index 0 through the highest index value.

Advantages of arrays

The following are some of the benefits

1. Group logically related data together – let's say you want to store a list of students. You can use a single array variable that has separate locations for student categories i.e. kinder garden, primary, secondary, high school, etc.
2. Arrays make it easy to write maintainable code. For the same logically related data, it allows you to define a single variable, instead of defining more than one variable.
3. Better performance – once an array has been defined, it is faster to retrieve, sort, and modify data.

Types of Arrays in VBA

- Static – These types of arrays have a fixed pre-determined number of elements that can be stored. One cannot change the size of the data type of a Static Array. These are useful when you want to work with known entities such as the number of days in a week, gender, etc.For Example: Dim ArrayMonth(12) As String

- Dynamic – These types of arrays do not have a fixed pre-determined number of elements that can be stored. These are useful when working with entities that you cannot predetermine the number.For Example: Dim ArrayMonth() As Variant.

Q3. Write step by step procedure to protect your workbook using a password.

Ans: **Steps to protect workbook using a password:**

1. Open your workbook that you want to set a password.

2. Click File > Save As in Excel 2010 / 2013, (if you use Excel 2007, please click button > Save As) and a Save As dialog box will pop out, click Tools drop down list, and click General Options

3. Then enter your password in the Password to open text box, click OK button and then confirm the password again.

4. And then click OK to close the above two dialog box, it will return to the Save As dialog, then click Save to save the workbook with its password And the Excel file will set the password, when you launch this workbook next time, you need to enter the password to open it.