1. Write a VBA code to enter your name in A1 Cell using Input Box and

once you enter the name display a message box that says the name

has been entered.

VBA code to enter name and display a message box:

Sub EnterName()

Dim name As String

name = InputBox("Enter your name:")

Range("A1").Value = name

MsgBox "Your name has been entered."

End Sub

2. What are Userforms? Why are they used? How to fill a list box using

for loop.

Userforms are graphical interfaces used to interact with the user in VBA. They are used to create customized dialog boxes or forms for data input or display. ListBox is one of the many controls available in UserForms. We can fill a ListBox using a For loop as shown in the below code:

Private Sub UserForm\_Initialize()

Dim i As Integer

For i = 1 To 10

ListBox1.AddItem "Item " & i

Next i

End Sub

3. What is an array? Write a VBA code to enter students and their marks

from the below table.

An array is a collection of related data items that share a common name. It is a way to store multiple values in a single variable. We can enter students and their marks using an array as shown in the below code:

Sub EnterMarks()

Dim students(1 To 5, 1 To 2) As Variant

students(1, 1) = "John"

students(1, 2) = 85

students(2, 1) = "Mary"

students(2, 2) = 92

students(3, 1) = "David"

students(3, 2) = 78

students(4, 1) = "Sarah"

students(4, 2) = 89

students(5, 1) = "Tom"

students(5, 2) = 91

Range("A1:B5").Value = students

End Sub

4. Use the following data to create a pie chart using VBA code. Use Font

- ‘Times new Roman’, Size -14, Bold, Title - Piechart’ and you are per

to use colours as per your taste.

Sub CreatePieChart()

Dim chartTitle As String

chartTitle = "Piechart"

'Create chart object

Dim cht As ChartObject

Set cht = ActiveSheet.ChartObjects.Add(Left:=100, Width:=300, Top:=75, Height:=225)

'Set chart properties

With cht.Chart

.ChartTitle.Text = chartTitle

.ChartTitle.Font.Name = "Times new Roman"

.ChartTitle.Font.Size = 14

.ChartTitle.Font.Bold = True

.HasTitle = True

.ChartType = xlPie

End With

'Add data series

With cht.Chart.SeriesCollection.NewSeries

.Name = "Sales"

.Values = Range("B2:B4")

.XValues = Range("A2:A4")

End With

'Set chart colors

With cht.Chart.SeriesCollection(1).Points(1)

.Format.Fill.ForeColor.RGB = RGB(91, 155, 213) 'Blue

End With

With cht.Chart.SeriesCollection(1).Points(2)

.Format.Fill.ForeColor.RGB = RGB(237, 125, 49) 'Orange

End With

With cht.Chart.SeriesCollection(1).Points(3)

.Format.Fill.ForeColor.RGB = RGB(165, 165, 165) 'Gray

End With

End Sub

5. Check the dataset in the link given below and create a pivot table using

VBA showing the sales for the year from stationary category.

Sub CreatePivotTable()

'Declare variables

Dim ws As Worksheet

Dim pt As PivotTable

Dim pf As PivotField

'Set worksheet

Set ws = ThisWorkbook.Worksheets("Sheet1") 'Replace "Sheet1" with the name of your worksheet

'Create pivot table

Set pt = ws.PivotTableWizard(TableDestination:=ws.Range("F3"), TableName:="SalesPivotTable")

'Set pivot fields

Set pf = pt.PivotFields("Category")

pf.Orientation = xlRowField

pf.Position = 1

Set pf = pt.PivotFields("Year")

pf.Orientation = xlColumnField

pf.Position = 1

Set pf = pt.PivotFields("Sales")

pf.Orientation = xlDataField

pf.Function = xlSum

'Filter for stationary category

pt.PivotFields("Category").CurrentPage = "Stationary"

End Sub

6. Write step by step procedure to protect your workbook using a

password.

To protect a workbook using a password, follow these steps:

Open the Excel workbook that you want to protect with a password.

Click on the "File" menu and select "Save As".

In the "Save As" dialog box, choose the location where you want to save the protected workbook and give it a name.

Click on the "Tools" dropdown menu and select "General Options".

In the "General Options" dialog box, you will see two password options - "Password to open" and "Password to modify".

Enter a password in the "Password to open" field.

This will prevent anyone who doesn't know the password from opening the workbook.

(Optional) Enter a password in the "Password to modify" field.

This will prevent anyone who doesn't know the password from making changes to the workbook.

Click "OK" to close the "General Options" dialog box.

Click "Save" to save the workbook with the password protection.