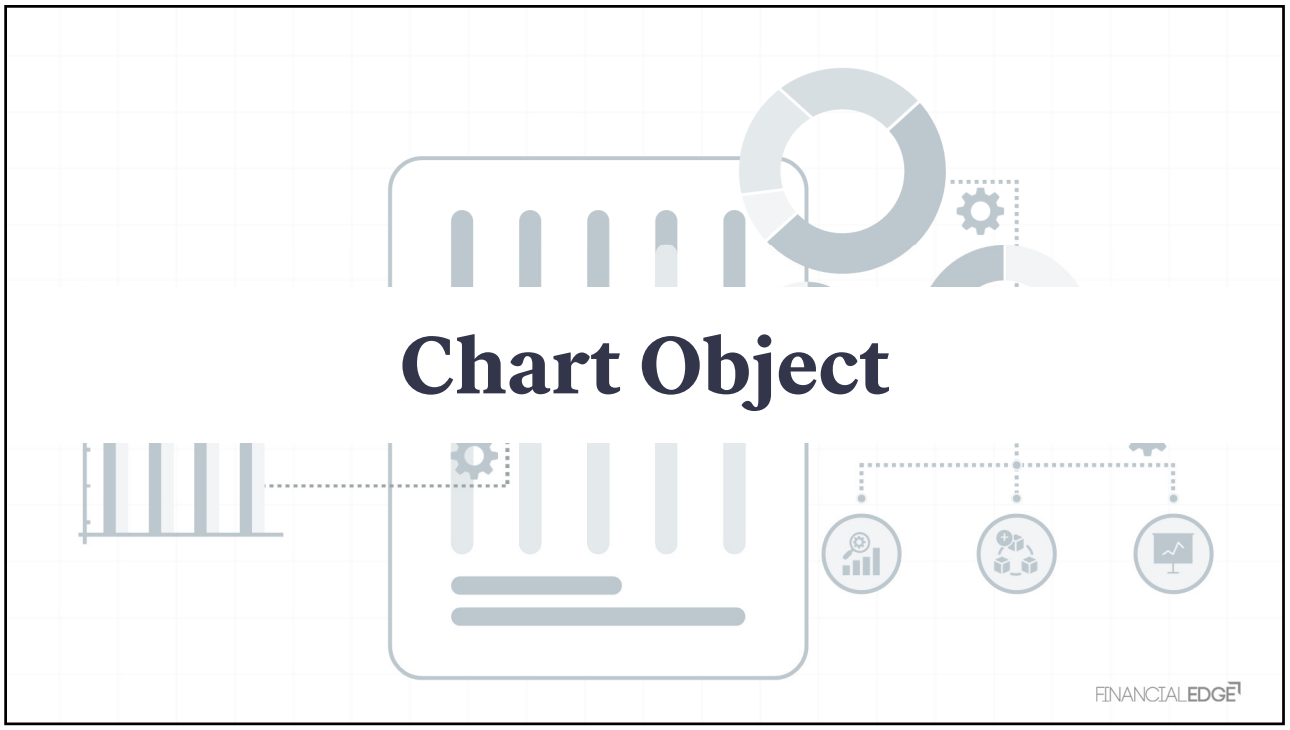
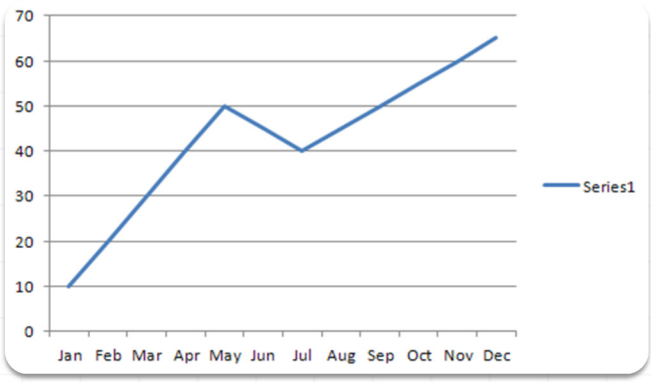




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Charts are **objects in Excel** and they have their **own properties** and **methods**



Change the **properties** of a chart:

- How to refer to the **chart object**
- **Embedded** charts or charts **displayed** in a **worksheet**

An **object** within a **worksheet object**

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```
Worksheets ("Sheet 1").ChartObjects(1).Chart.HasTitle = True
```

- `Worksheets ("Sheet 1")` — Contains all the **chart objects** on the **worksheet**
- `.ChartObjects(1)` — **Code** to **identify** the chart object and **add a title**
- `.Chart.HasTitle = True`

Individual chart objects can be referred to using their:

- Index number
- Number of the order the charts were created
- Chart name

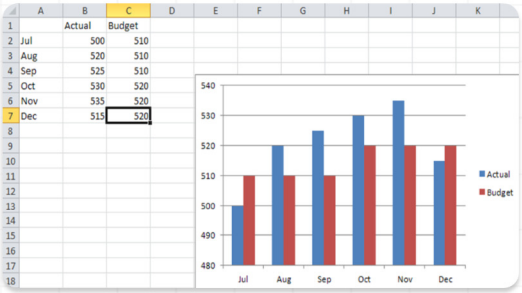
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Chart Properties and Methods

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The **AddChart** method of Shapes (A **ChartObject** is a type of **Shape** object)




```
Sub CreateChart()
    Dim MyChart As Chart
    Dim DataRange As Range

    Set DataRange = ActivSheet.Range("A1:C7")
    Set MyChart =
ActiveSheet.Shapes.AddChart.Chart

    MyChart.SetSourceData Source:=DataRange

End Sub
```

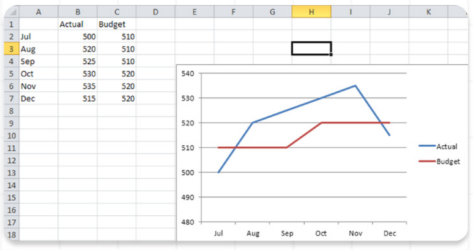
The **SetSourceData** method of the **chart object** variable 'MyChart' requires a **data range** to be specified

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Chart type property can be changed

To change a chart in VBA it does not have to be active **(.Activate)**



Code to change the chart to a **line chart**

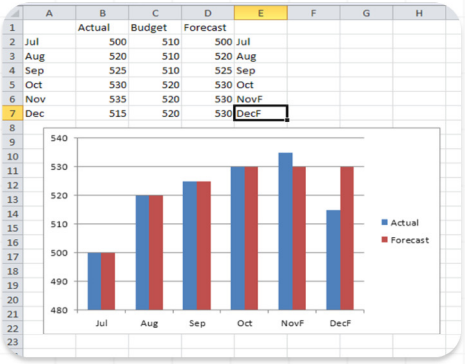
```
Sub ModifyChartType()

    ActiveSheet.ChartObjects("Chart 1").Chart.ChartType = xlLine

End Sub
```

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A **chart object** contains a **series object**



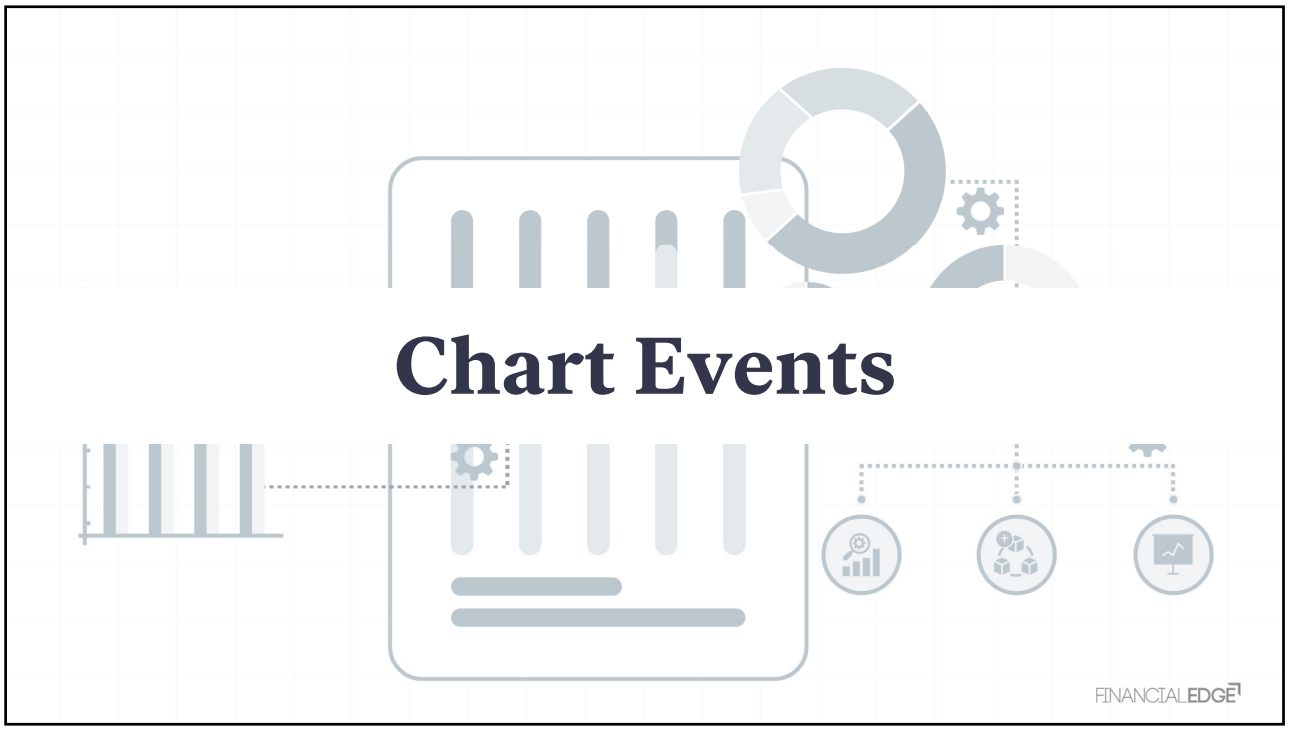

```
Sub ChangeSeries()

    ActiveSheet.ChartObjects("Chart 1").Chart.SeriesCollection(2).Values = Range ("D2:D7")
    ActiveSheet.ChartObjects("Chart 1").Chart.SeriesCollection(2).Name = Range ("D1")
    ActiveSheet.ChartObjects("Chart 1").Chart.SeriesCollection(2).XValues = Range ("E2:E7")

End Sub
```

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Events recognized by the **Chart** object

Event	Action that triggers the event
Activate	A chart sheet or embedded chart is activated
BeforeDoubleClick	Event occurs before embedded chart is double-clicked
BeforeRightClick	Event occurs before embedded chart is right-clicked
Calculate	New or changed data is platted on a chart
Deactivate	A chart is deactivated
MouseDown	Mouse button pressed whilst pointer over a chart
MouseMove	Position of mouse pointer changes whilst over a chart
MouseUp	Mouse button released whilst pointer over a chart
Resize	A chart is resized
Select	A chart element is selected
SeriesChange	Value of a chart data point is changed

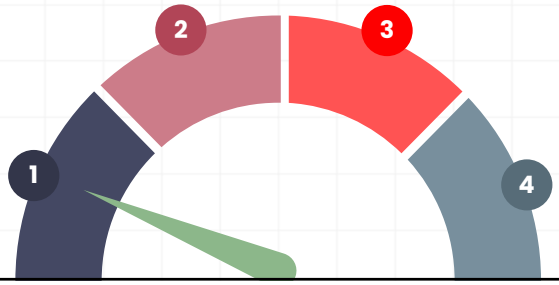
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Create a class module

```
VBE > Insert > Class Module
```

(In this **example** the **class module** is **renamed EmbChartClass**)

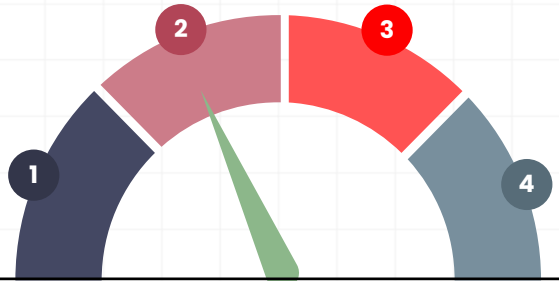


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Declare a public chart object

```
Public WithEvents MyChartClass As Chart
```

(The **variable** needs to be **declared** in the **Class Module**)



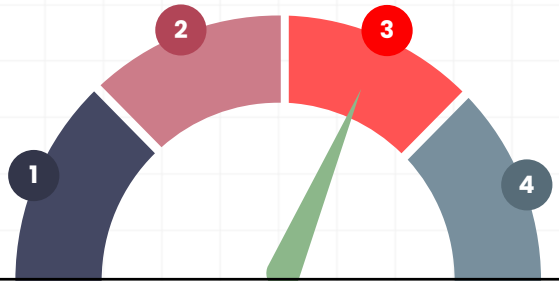
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Connect the declared object with your chart

```
Dim SummaryChart As New EmbChartClass
Set SummaryChart.MyChartClasses =
  Worksheets("Embedded Chart").ChartObjects("Chart 1").Chart
```

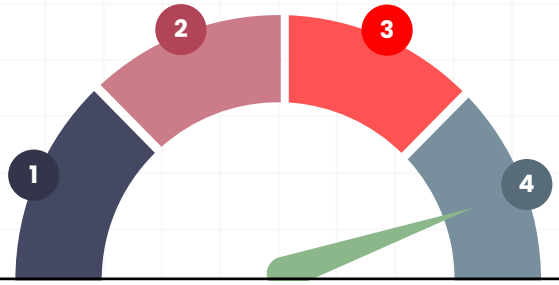
(This should be done in a **standard VBA module** not a class module)



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Finally...

Select the **new object** in the **Object box** and the **desired object** event from the **Procedure drop-down box**



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