**Visual Basic controls**

* **Multiline:** It specifies whether text displays in single line **(False)** or in multiple line **(True).**

**Setting**: It can be changed from properties window **only**.

* **Maxlength**: It limits the length of displayed text. Value (0) indicates to unlimited length.

**Setting**: It can be changed from properties window or from the program code using the statement:

**Text1.Maxlength= value**

* **Alignment**: It determines whether the text on textbox is left justified, centered, or right justified.

**Setting**: It can be changed from properties window or from the program code using the statements:

**Text1.Alignment = 0 (left justified)**

**Text1.Alignment = 1 (right justified)**

**Text1.Alignment = 2 (centered)**

* **Locked :** It determines whether the textbox contents can be changed **(False)** or not **(True).**

**Setting:** It can be changed from properties window or from the program code using the statements:

**Text1.locked = False**

**Text1.locked = True**

* **Enabled :** It determines whether the textbox respond to any event **(True)** or not **(False).**

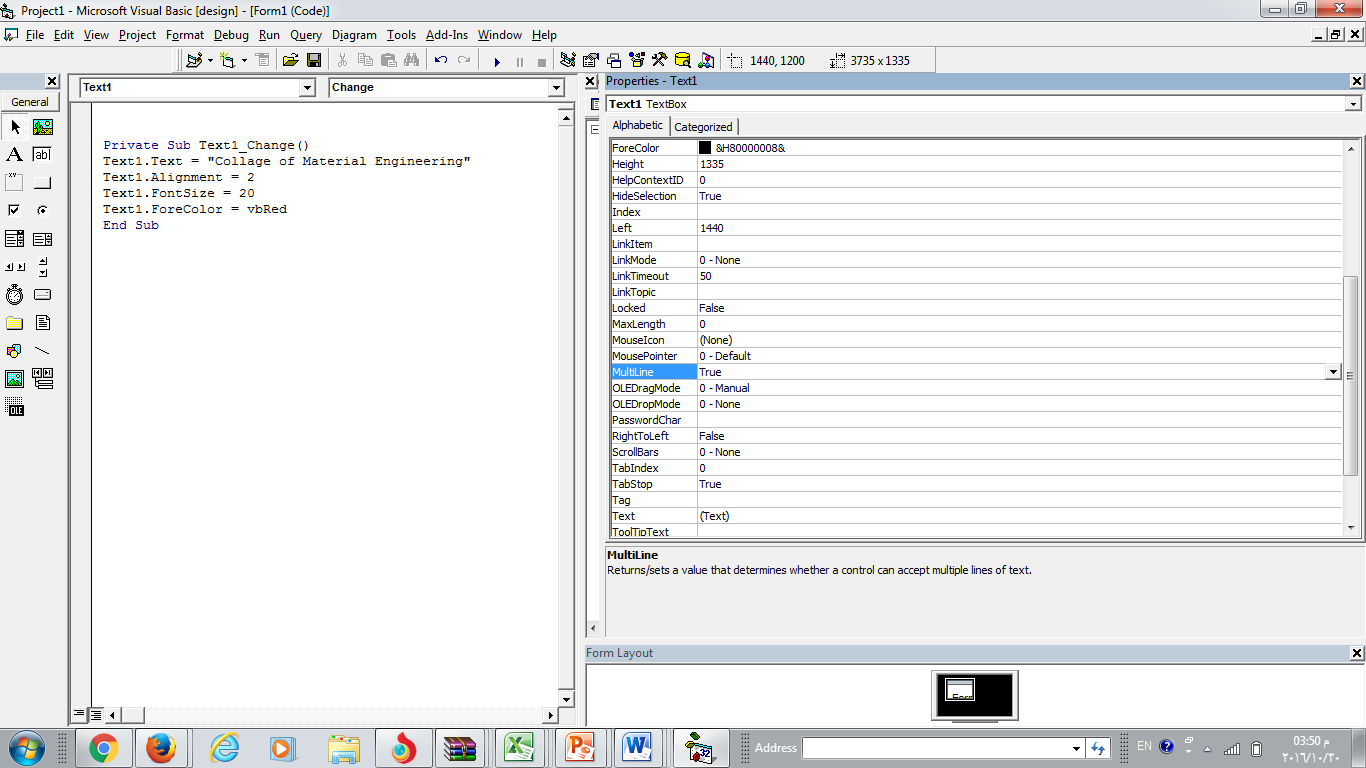
**Setting:** It can be changed from properties window or from the program code using the statements:

**Text1.Enabled = False**

**Text1.Enabled = True**

**Note:** The setting of Backcolor, Forecolor, Font, Width, Height, Top, Left and Appearance properties is similar to Command Button setting for the same properties.

**Example1**: Design a Visual Basic project contains a single Form and one textbox. After running the program and when we write inside the Textbox, ( Collage of Material Engineering) text will be displayed in the center of Textbox with Red color and 20 Font size and in multiple line.



* **Textbox and Clipboard:** The Clipboard is the area in the computer where all things get stored into when a user perform a copy , cut and paste operations. In Visual Basic, it is easy to get text stored in Clipboard and paste it into a textbox or a string variable. The following codes are used to store text in Clipboard and get the text from the clipboard then insert it into a textbox.

|  |  |
| --- | --- |
| Code | Operation |
| Clipboard.clear  Clipboard.SetText(Text1.Text) | Copy |
| Clipboard.clear  Clipboard.SetText(Text1.Text)  Text1.Text="" | Cut |
| Text2.Text=Clipboard.GetText | Paste |

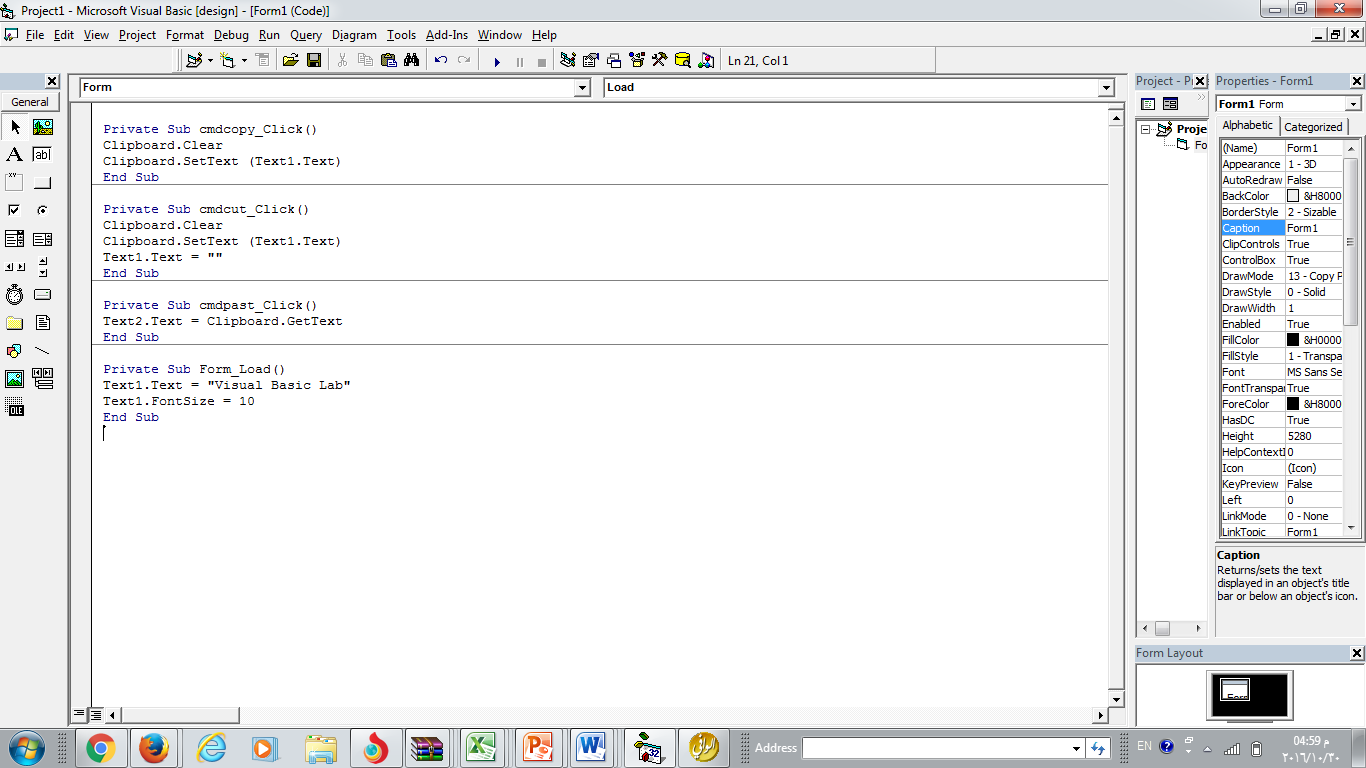
**Example2:** Design a Visual Basic project contains a single Form, two Textbox and three commands. The properties of objects are listed in the Table below:

|  |  |
| --- | --- |
| Object | Properties |
| Command1 | Name: cmdcopy  Caption : Copy |
| Command2 | Name: cmdcut  Caption : Cut |
| Command3 | Name: cmdpast  Caption : Past |
| Text1 | Text: **Visual Basic Lab**  FontSize:10  Multiline: True |

The program do the following:

1. When we click on command1, the text (Visual Basic Lab) will be copied.
2. When we click on command2, the text (Visual Basic Lab) will be cut.
3. When we click on command3, the text (Visual Basic Lab) will be pasted in the Textbox2.

**Solution:**



**Example3**: Put the same Controls of the last example and write the following code:

Private Sub cmdcopy\_Click()

Clipboard.Clear

Clipboard.SetText (Text1.SelText(

End Sub

Private Sub cmdcut\_Click()

Clipboard.Clear

Clipboard.SetText (Text1.SelText(

Text1.TextSel= ""

End Sub

Private Sub cmdpast\_Click()

Text2.Text = Clipboard.GetText

End Sub

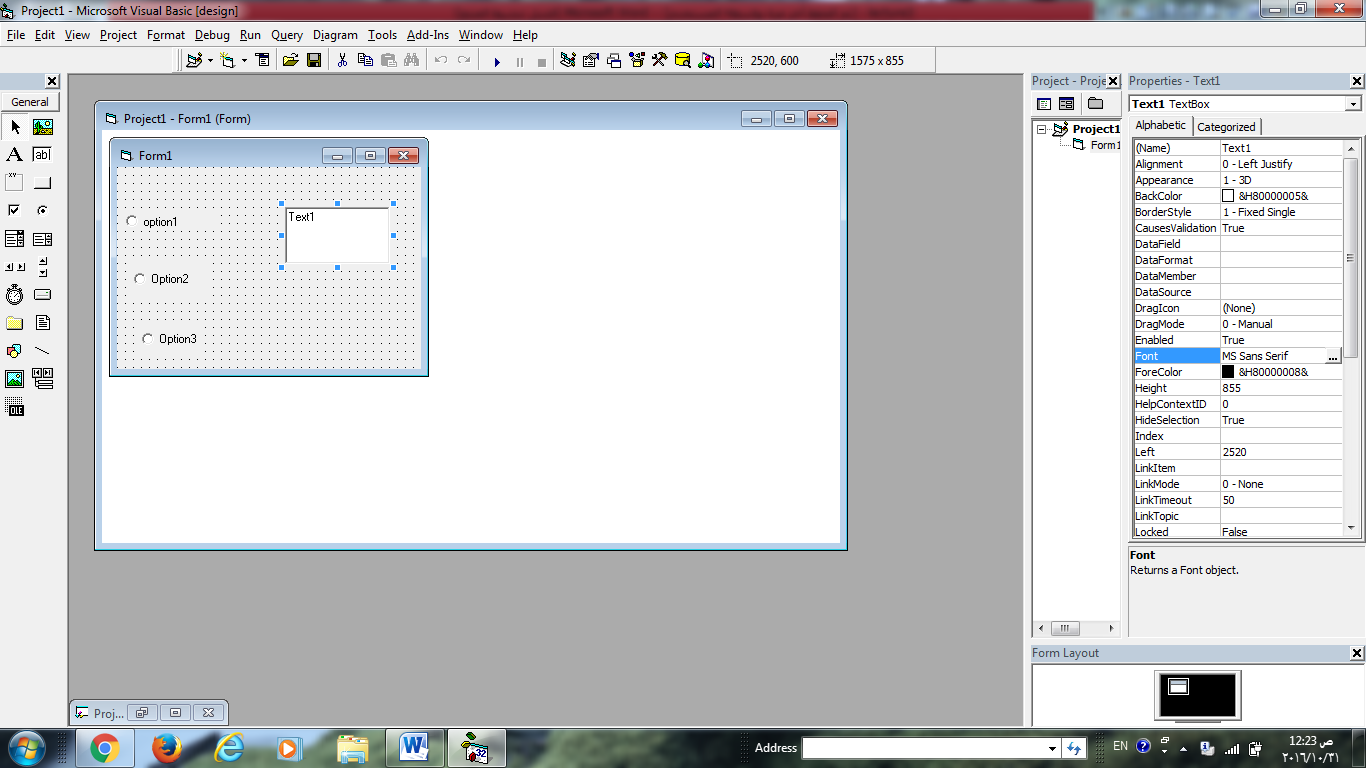
Private Sub Form\_Load()

Text1.Text = "Visual Basic Lab"

Text1.FontSize = 10

End Sub

**Run the program and discuss the results**.



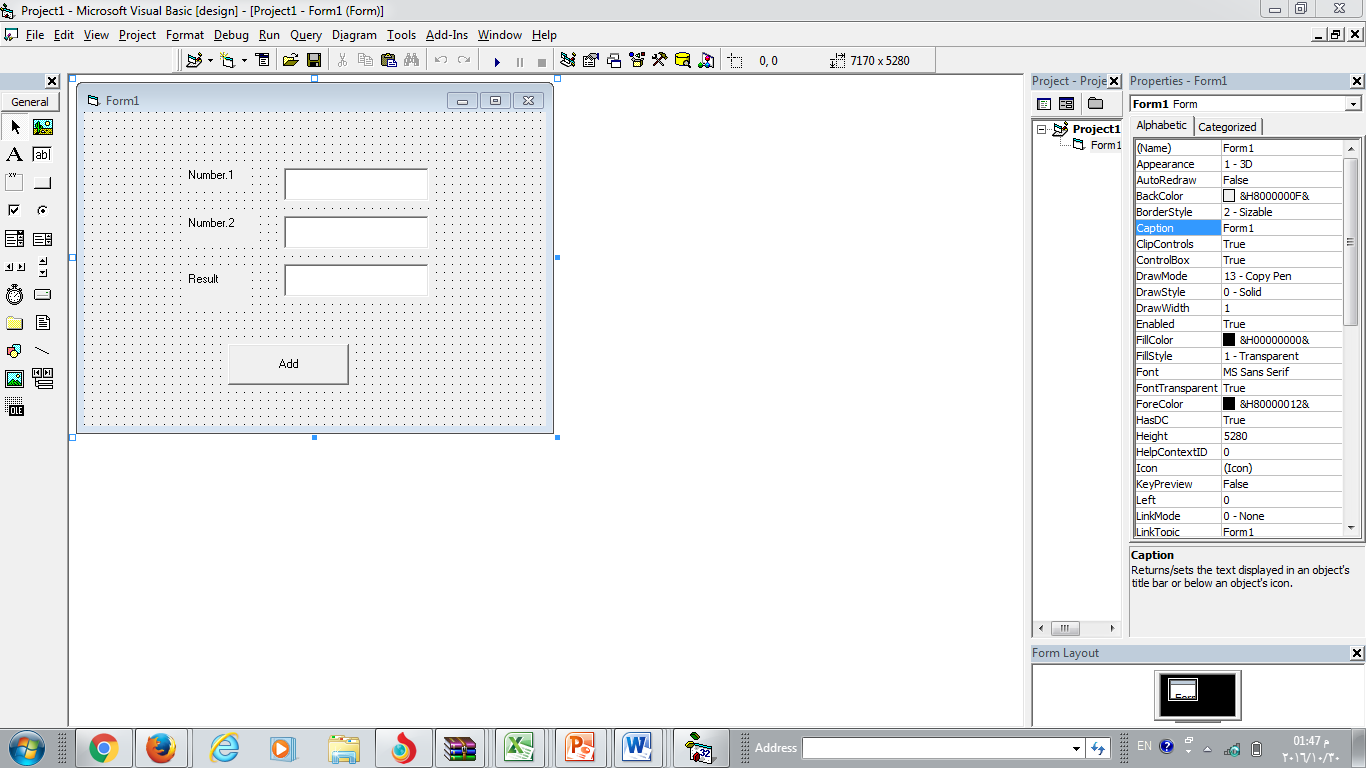
* 1. **Label Object**

Label object is a control that can be used to add descriptive text to the form in any location.

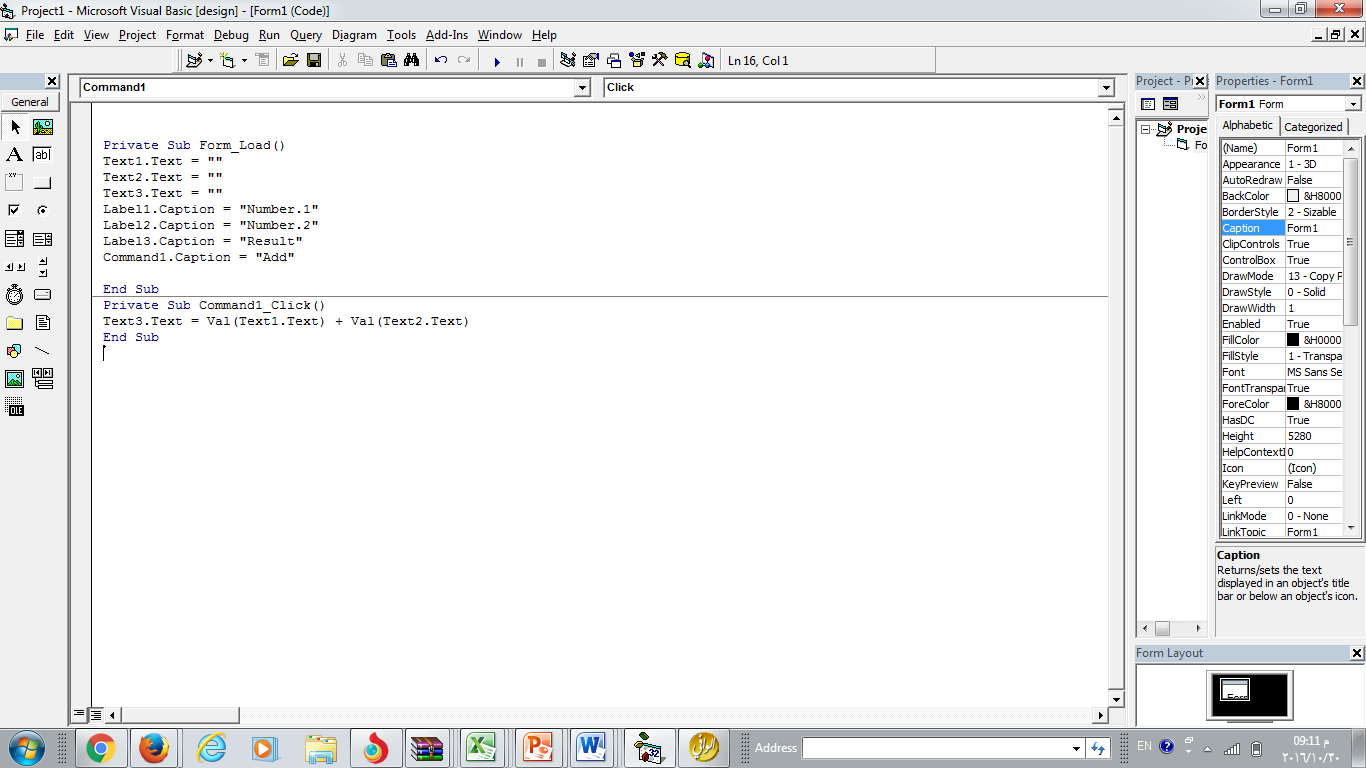
* **Label Properties**

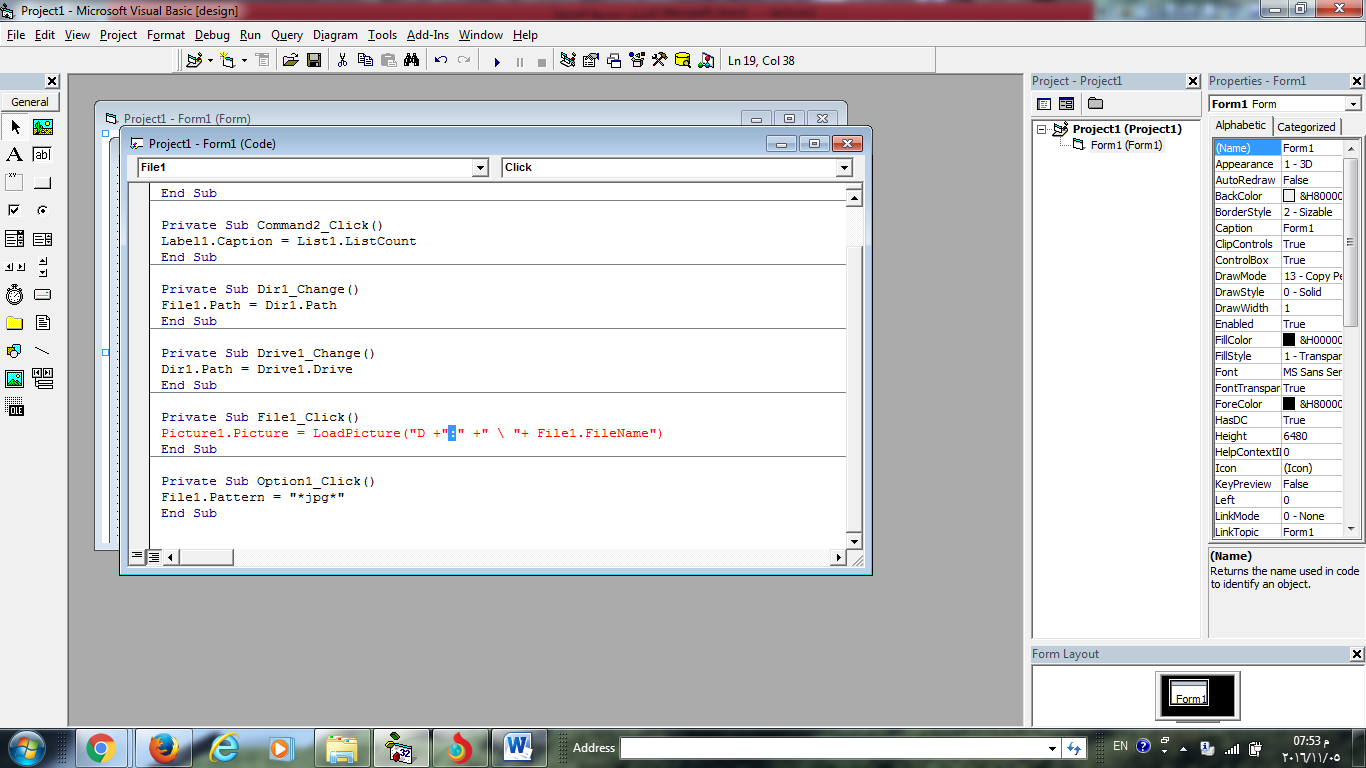
The setting of Label properties such as Name, Caption, Backcolor, Forecolor, Font, Width, Height, Top, Left and Appearance is similar to Command Button setting for the same properties. The prefix **lbl** is used for naming Label object.

**Example4:** Write a Visual Basic Program to add two numbers that are entered to Text1 and Text2 respectively. The result will display in Text3. The Form contents are shown in Figure below.



**Solution:**



* 1.  **Picture Box**

The picture box is used to view pictures on a Form. It is suited for dynamic environments for example when doing animation. In addition, it can be a container for another tool.

* **Picture Box Properties**
* **AutoSize**: If True, box adjusts its size to fit the displayed graphic.

**Setting**: It can be changed from properties window.

* **Font** : It sets the font size, style, and size of any printing done in the picture box.

**Setting**: It can be changed from properties window.

* **Picture** : It loads the graphics file to display in the picture box.

**Setting**: It can be changed from properties window or from the program code using the statements :

**Picture1.Picture = LoadPicture( " Path")**

* The prefix **pic** is used for naming Picture Box.
* The most important methods of Picture Box are:
* **Print**: It Prints information on the Picture Box. It can be set from the program code using the statements (example):

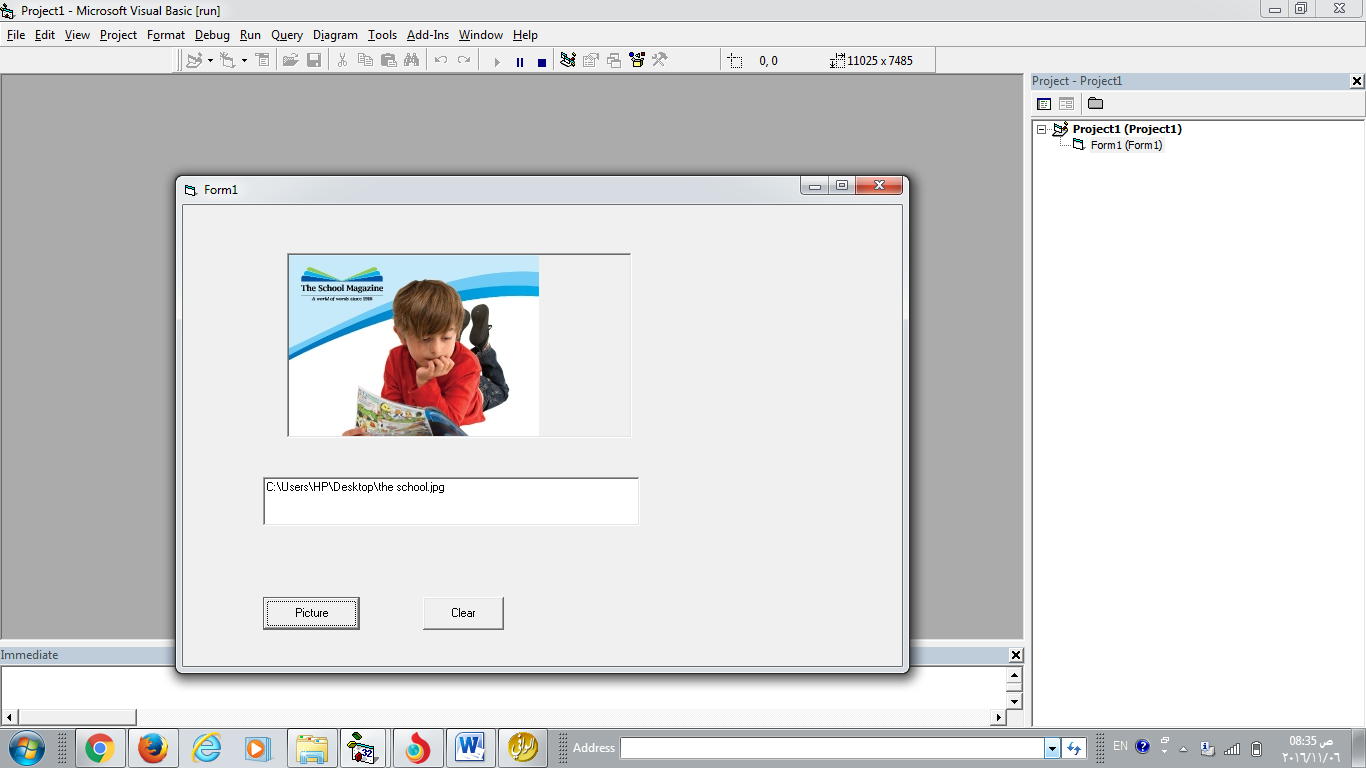
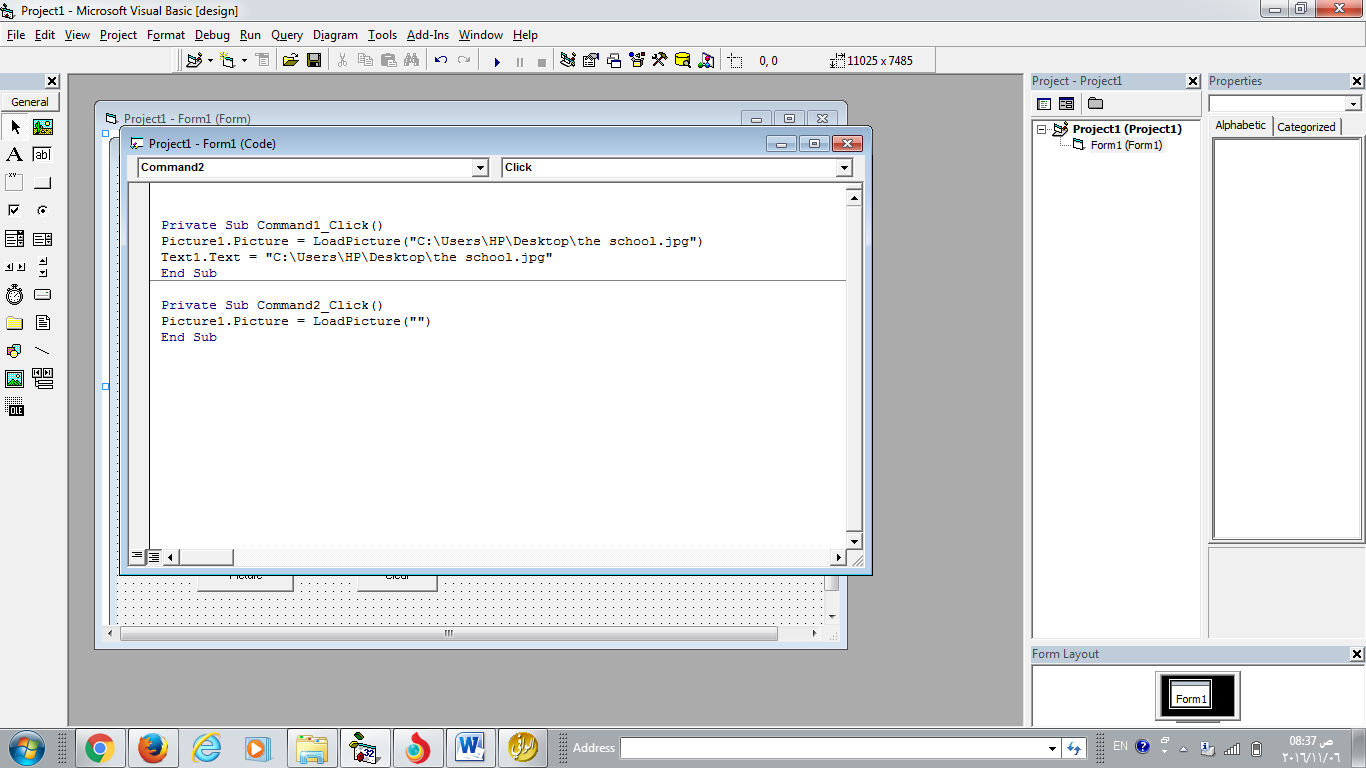
**Picture1.Print" text string"**

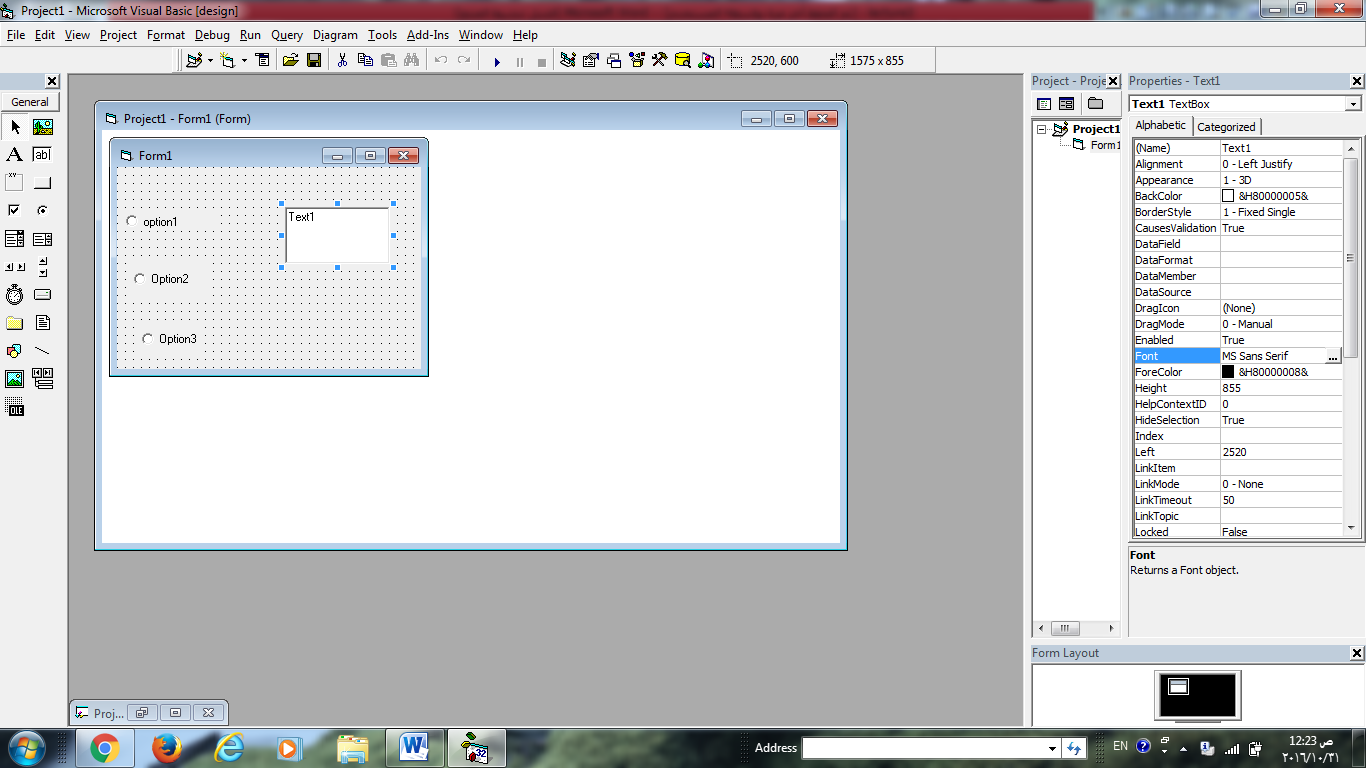
* **Cls**: It clears information on the Picture Box

**Picture1.Cls**

**Example5:** Design a Visual Basic project contains a single Form and two commands. The first command**(Picture)** to load the picture that is named the school from desktop and other command**(Clear)** to clear the picture from Form. The Form contains on textbox to display the path of the picture.

**Solution:**





* 1. **Option Buttons**

Option Buttons is used to give the user a single choice from several options. Only one option button in a group can be selected at a time.

* **Option Buttons Properties**

The setting of Option Buttons properties such as Name, Caption, Backcolor, Forecolor, Font, Width, Height, Top, Left and Appearance is similar to Command Button setting for the same properties. The other properties are listed in the Table below. The prefix **opt** is used for naming option buttons.

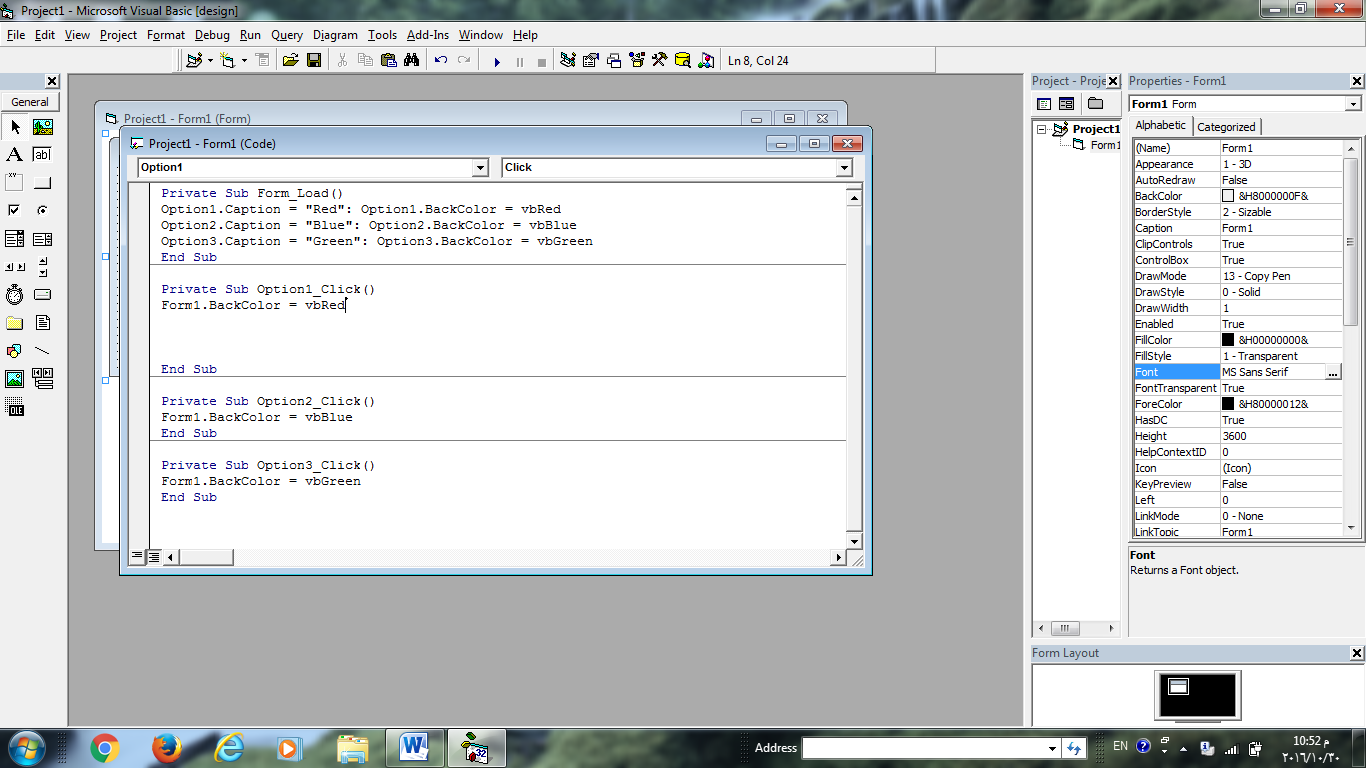
**J0K782Rz9**

**J0K782Rz9N**

|  |  |
| --- | --- |
| Property | Setting |
| Value | From properties window**: True**(option is selected), **False**(option is not selected) or from code : Option1.Value= **True**(option is selected)  Option1.Value= **False**(option is not selected) |
| Style | From properties window: **0 (Standard)**  **1 (Graphical**) |
| Alignment | From properties window**: 0 ( Left Justified)**  **1 (Right Justified)**  or from code : Option1.Alignment=**0** (**Left Justified**)  Option1.Alignment=**1** (**Right Justified**) |

**Example5:** Write a Visual Basic program to change the background color of the Form to Red, Blue and Green using Option Buttons (Red, Blue, Green).

**Solution:**



**Question1: Implement the following Visual Basic Form:**

