

First Lecture: An Introduction

Visual Basic implements graphical user interface that allows the use of graphics for different applications. It provides visual interactive windows with user , like Dialogue box for(color, font,), input box , output box. Also it is able to create menu to simplify user application.

The reasons for implementing Visual Basic program are:

- 1- It uses Integrated Development Environment (IDE) which is easier for the user to minimize code writing.
- 2- All visual programs follow the same concepts , therefore the user will become more familiar with visual approach for other visual language.
- 3- The core of the visual basic program is the powerful Form Designer that makes form design fast and easy. The form designer creates and modifies visual forms.
- 4- It uses many tools and boxes as standard tools , and common dialog ,OLE (object linking embedding), and other.
- 5- It provides input box and output box as an interactive windows with user.
- 6- It is able to connect to Internet and to call Explorer.

Elements of the Integrated Development Environment(IDE):

The IDE consist of many elements. Some elements are displayed when visual basic is started (by *default*); other elements are displayed if the user required them as the code window.

- 1- Menu Bar: contain a standard command like: File ,Edit , View, ... etc.
- 2- Tool Bar: contains the most commonly used commands as buttons.
- 3- **Tool Box**: contains a collection of tools that are needed for project designed. Usually this tool box is placed on the left side of the IDE window.

4- **Form Designer** : is a window for each form to customize the designed interface of the application. Using the form designer, the user can add control, graphics, and text to create the desired form appearance. The form designer called the **Application Window**.

5- **Properties Window** :is a list of properties setting for a selected form or a control. These properties are characteristics (such as size, visible or color) of the selected object. It provides an easy way to set properties.

The properties window consist of the following elements :-

A) **Object Box**: displays the name of the object for which the properties are listed below in the list.

B) **Sort Tabs**: To view listing of properties in alphabetic or a hierarchical

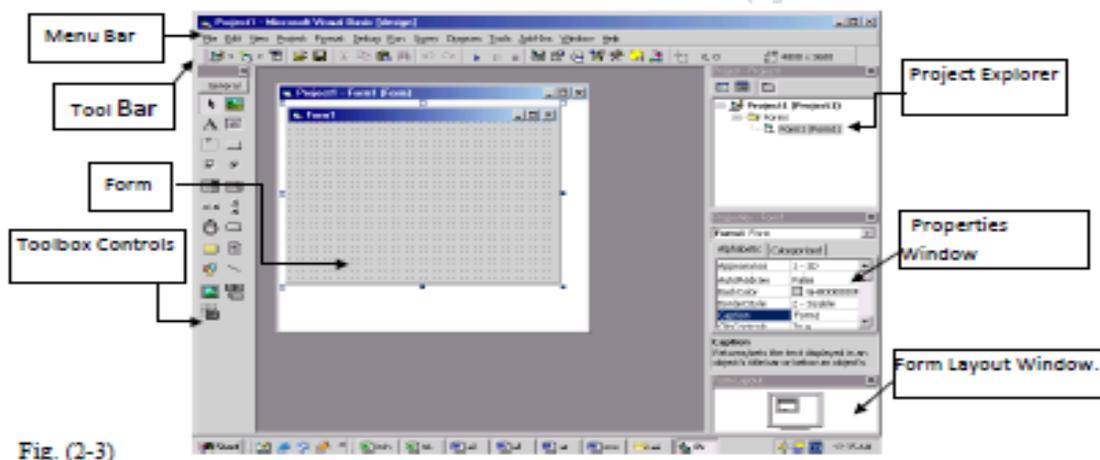
C) **Properties List**: A list of properties for the selected object that user can view and edit settings in the right column.

Setting of the items could be done in one of three ways:

First: By edit , if it has a predefined value.

Second: Clicked on arrow on the right side to select one of the settings.

Third: Click on the dotted button to open a dialog box.



How to Create New Project in Visual Basic:

There are main three stages to build new project in the visual basic language ; understand these stages is very important to build and develop the applications for any project.

First Stage *Form Design:*

This stage include placement the tools on the form by two ways:

- Double click on the desired tool , it will appear on the middle of the form, then dragged to placed with the design.
- Single click on the desired tool, then the mouse cursor to cross + and press and drag in diagonal to formulate the tool.

Second Stage *Set Properties :*

In this stage , all the properties of selected tools may be changed into the desired set according to many considerations decided by the application's nature. This stage done by dealing with the properties window.

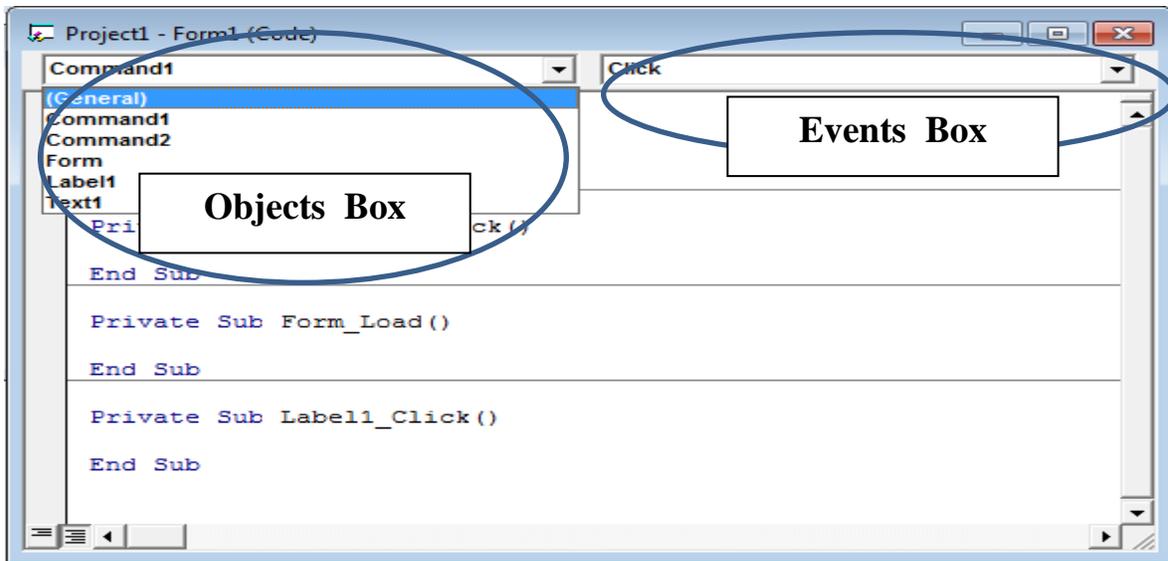
Third Stage *Write codes*

All most, this stage consider as the important stage because it includes the center of actions in the required application. In this stage emerge the role of the good programmer who build the behavior of the application by write the required codes to deal with used objects on the designed form by its properties.

The codes written on the Codes Editor Window which may be accessed by two ways:

- Double click on the selected object, Or
- Follow the path View> code, and then select the selected object from the object box and select the event from the events box

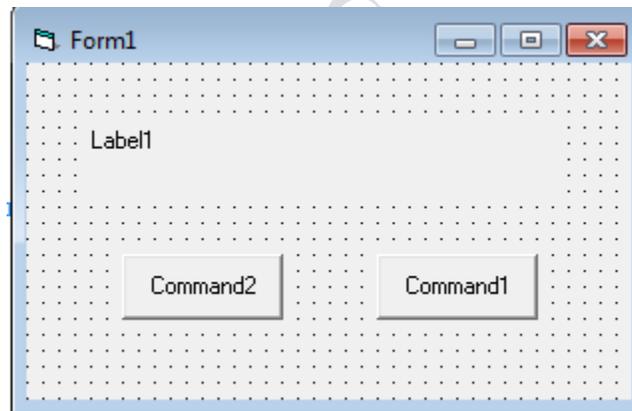
The following figure illustrate the codes editor window :



Example:

In this example we will design simple project to view welcome message in the label tool when press command named welcome

1st Stage : Form Design



2nd Stage: Set Properties

Object (Tool)	Property	Setting
Command1	Caption	Welcome
Command2	Caption	Exit

Label1	Caption	
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3rd Stage: Write Codes

1) Command1 (Welcome)

Label1.caption= "Welcome in Babylon University – Coll. Of Material Eng."

2) Command2 (Exit)

End

Exercises:

1. What is Visual Basic?
2. What are the reasons to use the Visual Basic language?
3. What is the Procedural languages? Why is it name with procedural language?
4. Visual Basic called with other name what is? Why?
5. How run Visual Basic?
6. What is the integrated development environment?
7. List the elements of the IDE?
8. What is form designer?
9. What are the styles of set properties in VB?
10. How do access to the codes editor window?
11. Explain in detail the stages of creation new project in VB? Support your answer with example?