



جامعة المستقبل
الكلية التقنية الهندسية
قسم هندسة تقنيات الاتصالات



Second Stage

Visual Basic - UOMU0207036

Windows Forms Application

Presented By:

Dr. Mohammed Fadil

Email: mohammed.fadil1@uomus.edu.iq



Creating a Visual Basic 2022 Project

To create a Visual Basic 2022 project, launch Microsoft Visual Studio 2022 to bring up the Visual Studio 2022 Start Page.

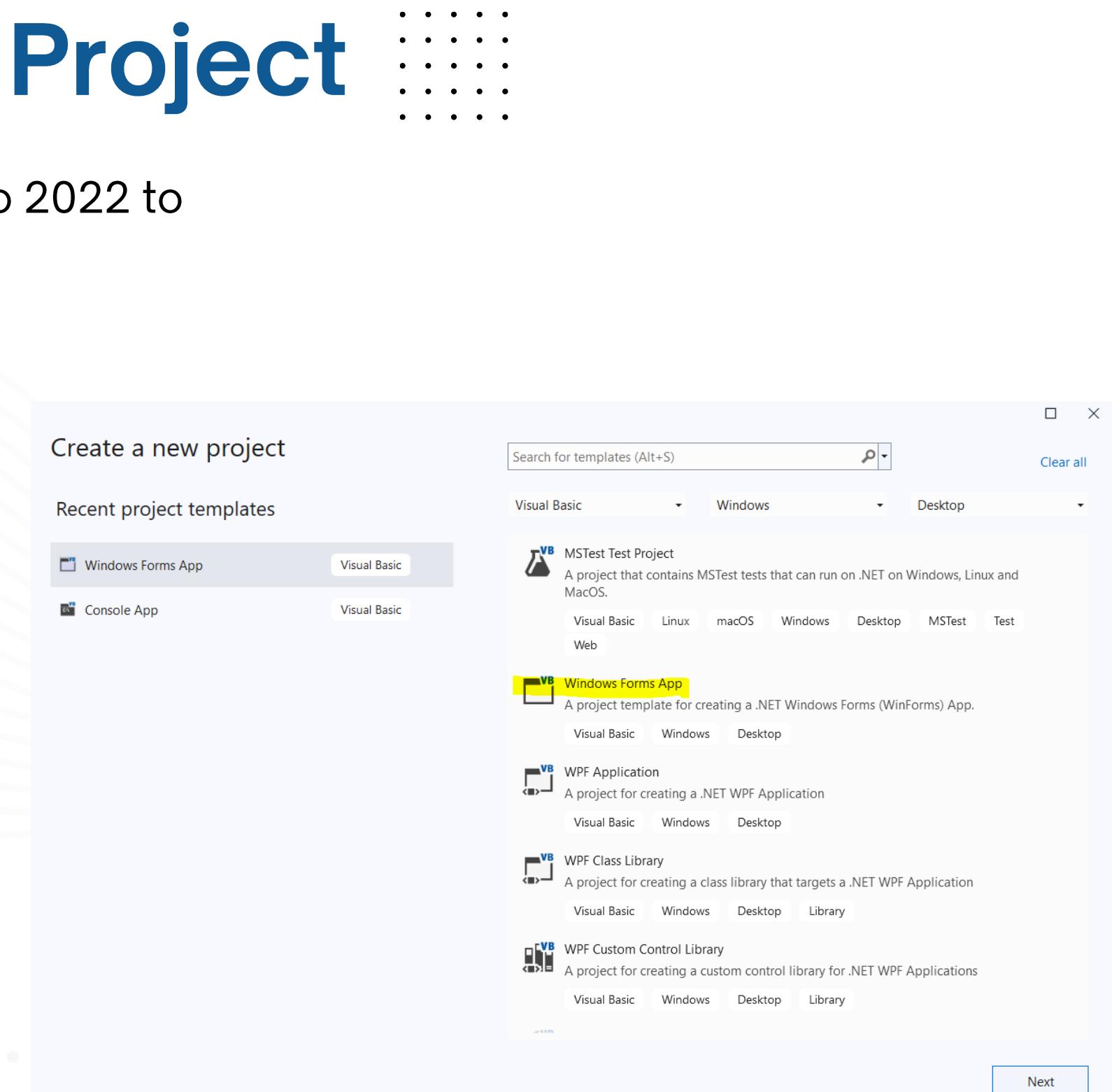
Create a new project template

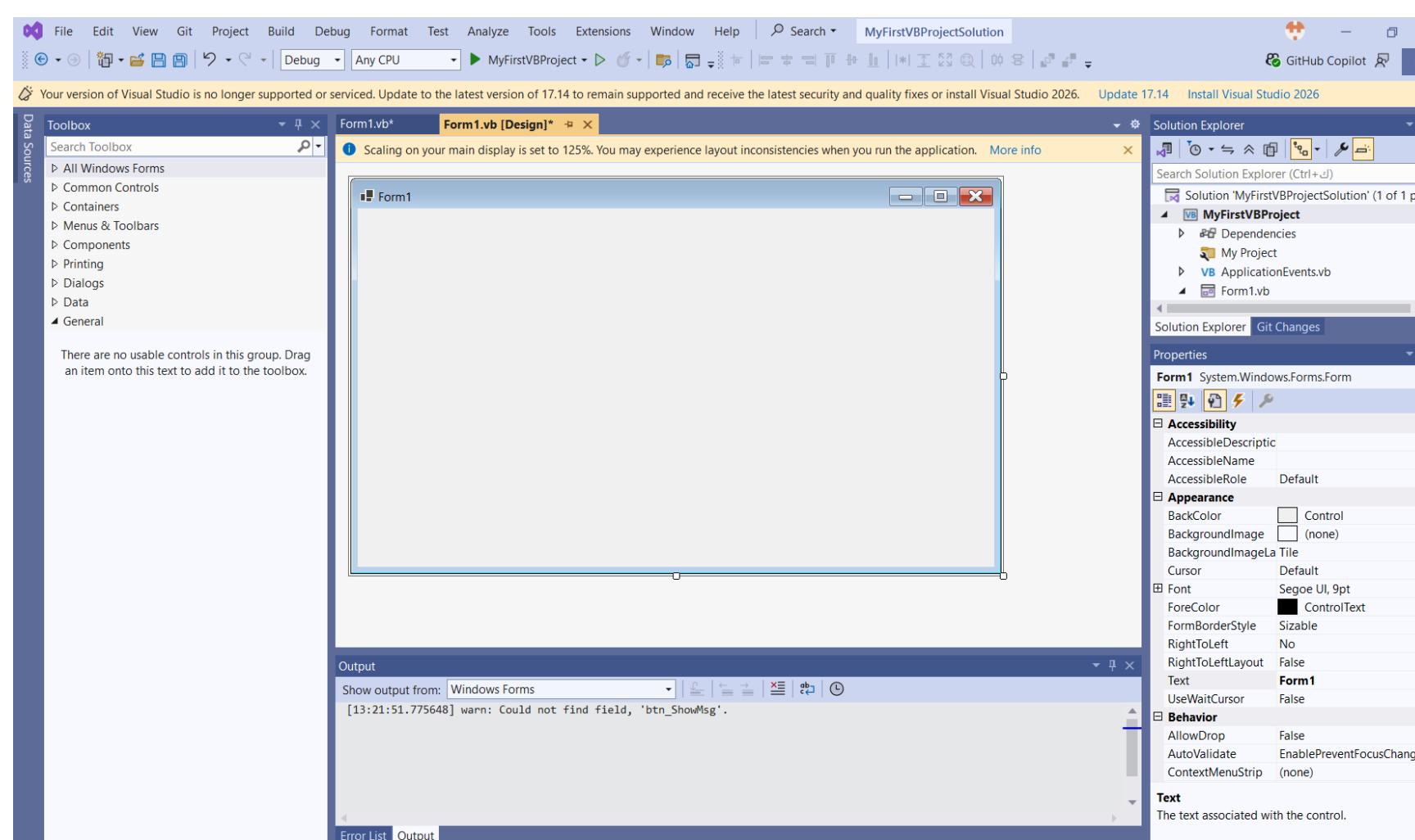
First Step

The Visual Studio 2022 start page offers a much simpler UI than VS 2019, it comprises four options: clone a repository, open a project or solution, open a local folder or create a new project.

Second Step

Let us create a new project by clicking the Create a new project option. You will see the Create a new project template page, as shown in Figure 1.6. There are a dozen templates to choose from, but since the book is about Visual Basic 2022 programming, select **Windows Forms application**,





The Visual Basic 2022 IDE

The Visual Basic 2022 IDE Windows will appear, as shown in the Figure. Visual Basic 2022 IDE comprises a few windows, the **Form** window, the **Solution Explorer** window, and the **Properties** window. It also consists of a **toolbox** which contains many useful controls that allows the programmer to develop his or her Visual Basic 2022 programs.

Next, we shall proceed to show you how to create your first VB2022 application.

Task

Create a Simple Form With a “Hello World” Button

Steps to Implement

- Create a new Windows Forms Application in Visual Basic.
- Add a Button to the form.
- Double-click the button to open the code window.
- Insert the following code.

VB Code Example

```
1 1 reference
2  Public Class Form1
3 0 references
4  Private Sub btn_ShowMsg_Click(sender As Object, e As EventArgs) Handles btn_ShowMsg.Click
5      MsgBox("Hello, World!")
6  End Sub
7 End Class
```

Steps to Implement

- `btn_ShowMsg_Click` event is triggered when the user clicks the button.
- The `MsgBox()` function is used to show a simple message dialog.

Variable Understanding Solution

This example demonstrates how to declare a variable, assign a value to it, and display the result using a message box in Visual Basic.

Key Points

- **Dim** is used to declare a variable.
- The variable **myfstname** stores a string value.
- **MessageBox.Show()** displays the value stored in the variable.

```
1 reference
Public Class Form1
    0 references
    Private Sub btn_ShowMsg_Click(sender As Object, e As EventArgs) Handles btn_ShowMsg.Click
        Dim myfstname As String
        myfstname = "Ali"
        MessageBox.Show(myfstname)
    End Sub
End Class
```

Variable Understanding Solution

Student Task: Create a Visual Basic program with a button. When the button is clicked, the program should:

1. Create a Visual Basic program with a button.
2. When the button is clicked, the program should:
3. Declare a variable to store your favorite hobby (as a String).
4. Assign a value to the variable (e.g., "Football", "Reading", "Drawing").
5. Display a message box that says:"My favorite hobby is <yourHobby>"

Expected Output:

- If the variable contains "Swimming", the message should display:

My favorite hobby is Swimming

Variable Understanding Solution

Student Task

1. Declares two string variables.
2. Assigns a car brand and model.
3. Displays: Toyota Corolla

.....

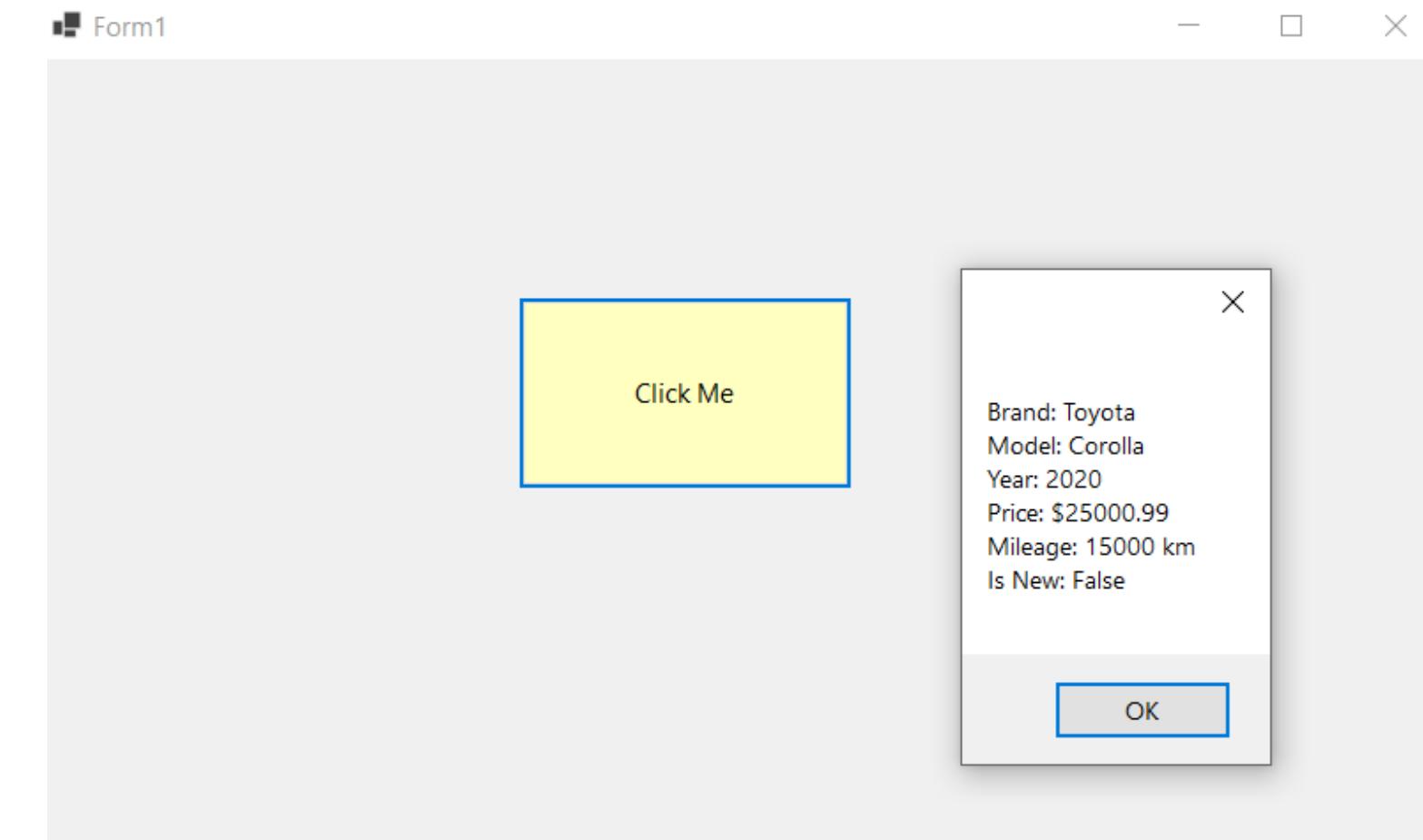
.....

.....

- Students are required to edit and complete the task to display the following features :

```
Public Class Form1
    0 references
    Private Sub btn_ShowMsg_Click(sender As Object, e As EventArgs) Handles btn_ShowMsg.Click
        Dim strbrand As String
        Dim strModel As String
        Dim intYear As Integer
        Dim DoublePrice As Double
        Dim decimalMileage As Decimal
        Dim boolIsNew As Boolean

        strbrand = "Toyota"
        strModel = "Corolla"
        intYear = 2020
        DoublePrice = 20000.99
        decimalMileage = 30.5D
        boolIsNew = True
        ...
        MessageBox.Show(strbrand & Environment.NewLine & strModel)
    End Sub
End Class
```



Variable Understanding Solution

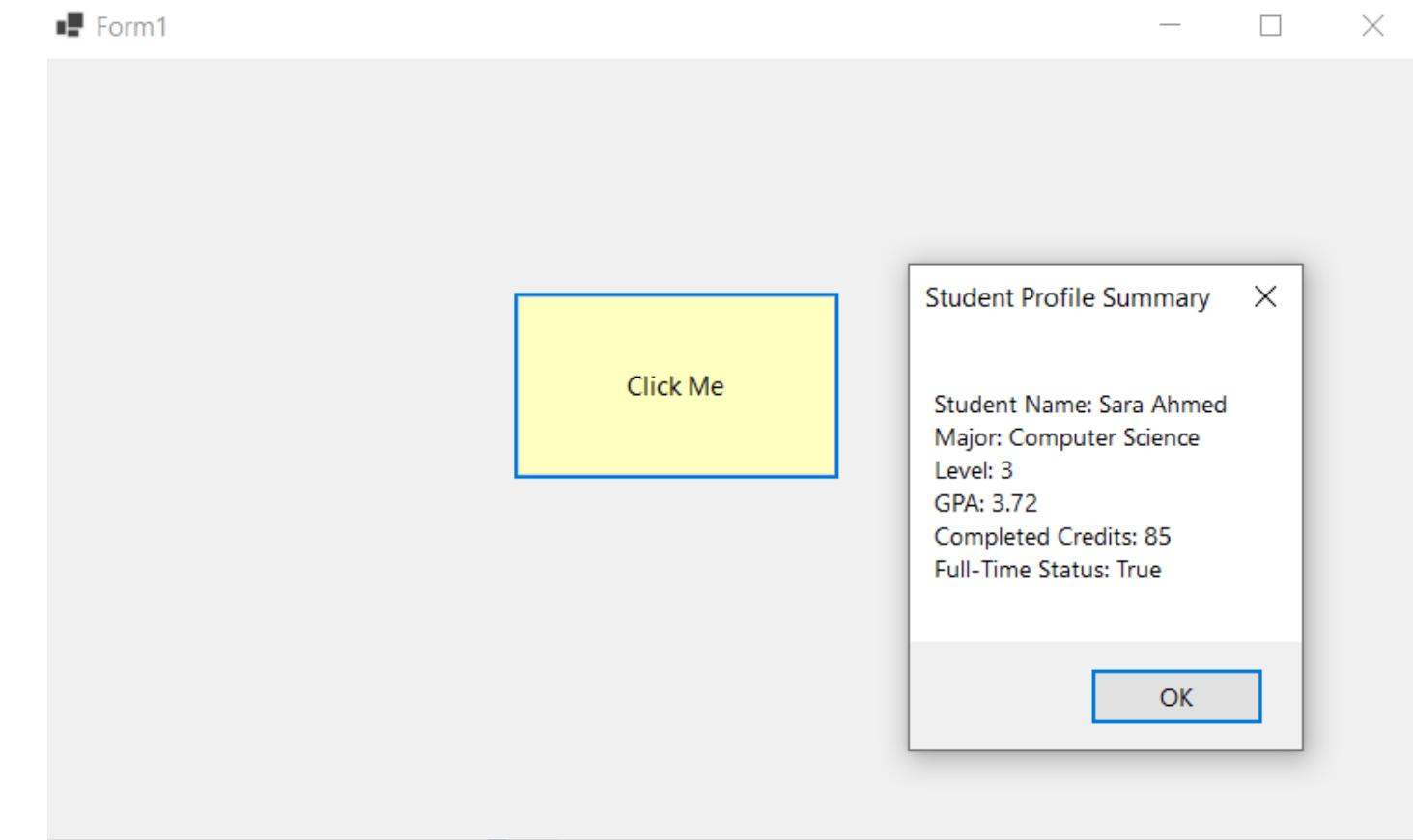
Try It Yourself – Homework Task!

Create a Visual Basic program that displays information about a student using variables of different data types.

Task Requirements

Write code that:

- Declares the following variables:
 - **strName** (String)
 - **strMajor** (String)
 - **intLevel** (Integer)
 - **dblGPA** (Double)
 - **decCompletedCredits** (Decimal)
 - **bolFullTime** (Boolean)
- Assigns appropriate values to each variable.
- Uses **Environment.NewLine** to format the message.
- Displays all the information using **MessageBox.Show**.



Input Box

Try It Yourself – Homework Task!

A TextBox is a control in Visual Basic that allows the user to enter or edit text. It is commonly used in forms to collect information such as names, email addresses, phone numbers, etc.

Key Uses of a TextBox

- Accepting user input
- Displaying text that the program can read
- Storing information typed by the user into variables
- Interacting with buttons and messages

Each TextBox has a Text property, which contains whatever the user types.

Example

```
strFirstName = txtFirstName.Text
```

Input Box

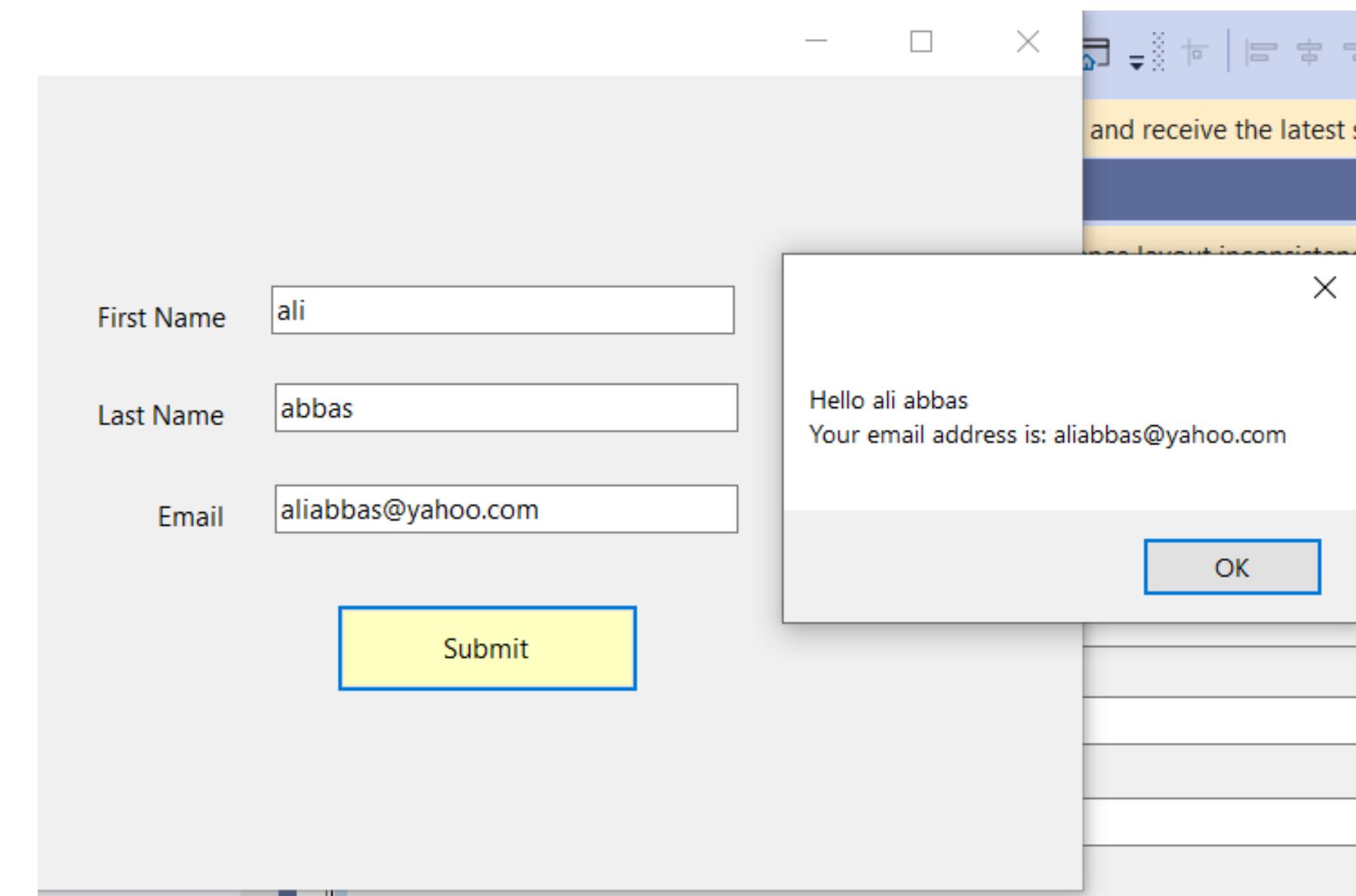
Try It Yourself

Create a simple Visual Basic program that collects user information from textboxes and displays it in a formatted message box as the following.

Task Requirements

Your form must include:

- Textbox 1 → First Name
- Textbox 2 → Last Name
- Textbox 3 → Email Address
- One Button → When clicked, it displays a greeting message as the shown the image.



Input Box

Code!

```
Dim strFirstName As String  
Dim strLastName As String  
Dim strEmail As String  
  
' Assign values from textboxes  
strFirstName = fstname.Text  
strLastName = lstname.Text  
strEmail = myem.Text  
  
MessageBox.Show("Hello " & strFirstName & " " & strLastName &  
Environment.NewLine &  
"Your email address is: " & strEmail)
```

Input Box

Task: Two-Textbox Mini Calculator – Homework Task!

Create a small Visual Basic program that performs multiple operations using the values entered in two textboxes.

Task Requirements

Form Requirements

- **Textbox1 → Number A**
- **Textbox2 → Number B**
- **Button → When clicked, the program must display several calculated results**

Required Operations

When the button is pressed, your program must:

1. **Read Number A from TextBox1**
2. **Read Number B from TextBox2**
3. **Display the following results in ONE MessageBox:**
 - $A + B$
 - $A - B$
 - $A * B$
 - A / B
 - $A ^ B$ (**A raised to the power of B**)
4. **Use Environment.NewLine to format the message neatly.**



Question And Answer

Thank You For Your Attention

هندسة تفزيتات الاتصالات

