InputBox function

Input boxes are one of the essential things in Visual Basic. Input boxes are used to enter values by the user by displaying a dialogue box containing a question, a text box to enter the answer, and the Ok / cancel command buttons to agree to the entry or cancel the order.

The general Form of an InputBox is as follows:

1- To enter numeric variables:

Variable =Inputbox ("message", "window title", "default value")

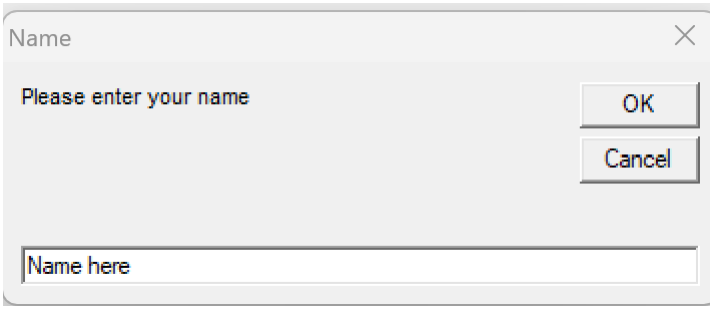
2- To enter literal variables

variable $ = Inputbox$ ("message", "window title", "default value")

The following is an illustration of the terms of the InputBox:
Variable: The variable's name to store the value received from the user.
Message: means the sentence that is displayed to the user.
Window Title: The window's title bar is displayed to the user.
Default value: The value that is set to the user.

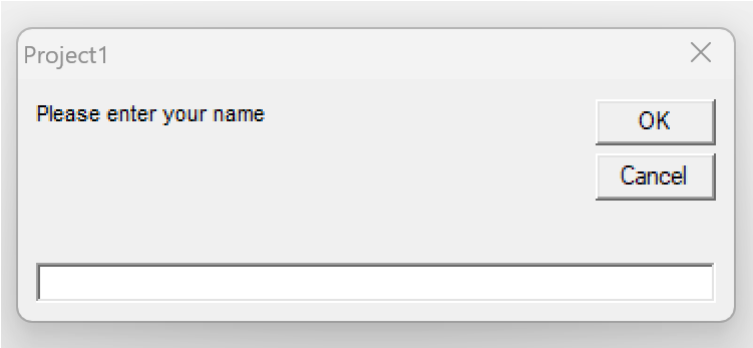
Example : Put the following sentence in the command key and execute the program.

YourName$ = InputBox$("Please enter your name", "Name", "Name here")
The box will appear as follows:



The word $YourName at the beginning of the code carries the variable value the user will enter. The symbol $ distinguishes the literal variable from the numeric variable. An abbreviated formula can be used for the input boxes, where only the message can be satisfied, as follows:

YourName$ = InputBox$("Please enter your name")
The box will appear as follows:



Note, dear student, when using the abbreviated formula to show the InputBox, there will be no primitive value, and the title of the window will be the same as the title of the project.

Message Box function

How do you display a message to the user?
Many times during the program, you may want to ask the user to decide on an issue. For example, if the user wanted to save a file with a specific name, and that file was already on disk, you might want to ask him if he wanted to overwrite it. In this case, you show him a message and leave him free to choose the appropriate action.
How do you display this message?
There are two forms of displaying messages. The first is if you want to display a message to the user only and not ask the user to specify his opinion on a particular issue; in this case, use the following syntax:

Msgbox "Requested Message", Buttons and symbols, "Dialog Title"
But if you want to know his opinion on a specific thing, put it in the following way.

Variable = Msgbox ("Required Message", Buttons and symbols, "Dialog Title")
The variable will hold the user's reaction to the message in this case. The following is an explanation of the vocabulary of the letter:

Required Message: The sentence you want to display to the user.
Dialogue Title: The title of the dialogue's title bar.
Buttons and symbols: Determine which buttons you want to show.

To specify the buttons that will appear in the message, we use the following table:

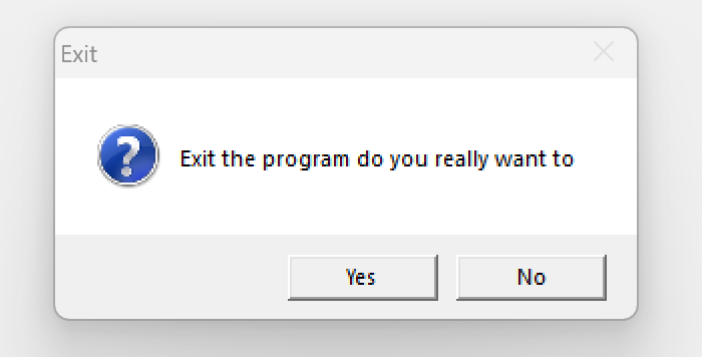
Used to display the following buttons	Alternative code for buttons	Button code
ok	vbokonly	0
Ok, cancel	vbokcancel	1
Abort, Retry, Ignore	VBAbortRetryIgnore	2
Yes, No, Cancel	VBYesNoCancel	3
Yes, No	VBYesNo	4
Retry, cancel	VBRetryCancel	5

To show the symbols that appear in the message, we use the following table:

employment	Alternative code for symbols	symbols code
Displays a stop symbol and is used when an error occurs 	VBCritical	16
Displays a question mark symbol and is used when the system requests additional information from the user 	VBQuestion	32
 Display an exclamation mark symbol when an error occurs, and the user must intervene to correct it.	VBExclamation	48
 Displays a query flag icon and is used to tell the user that all is well	VBInformation	64

In both previous tables, you can use the first or second column to show buttons and symbols. For example, the following two codes can be used to display the following message:

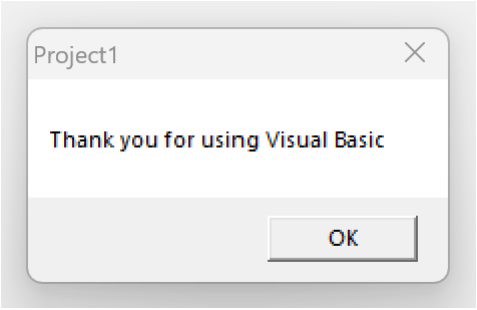
A=msgbox ("Do you really want to exit the program" ,36,"Exit")
A=msgbox("Do you really want to exit the program" , vbYesNo + vbQuestion,"Exit")



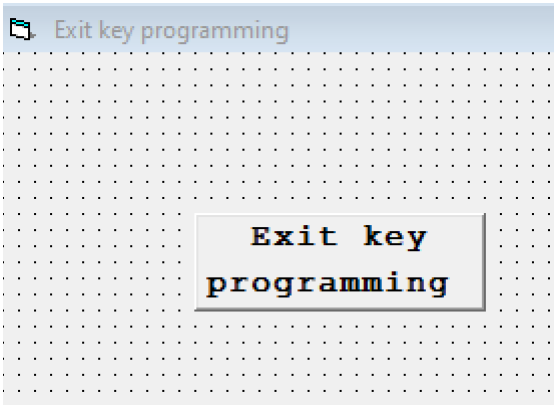
Note that in the first sentence, we used the number 36, the sum of the two numbers 4, to show the Yes and No keys, and the number 32 to show the question mark symbol. The following table represents the values of the variables, which represent the user's reaction when pressing the keys:

The variable value of the key	the key
1	Ok
2	Cancel
3	Abort
4	Retry
5	Ignore
6	Yes
7	No

For example, in the previous message, when pressing the yes key, the value of A is 6, and when pressing the No key, the value of A is 7.
Note: As in the input boxes, an abbreviated form can be used for messages as follows:
MsgBox ("Thank you for using Visual Basic")
Where the following message will appear:



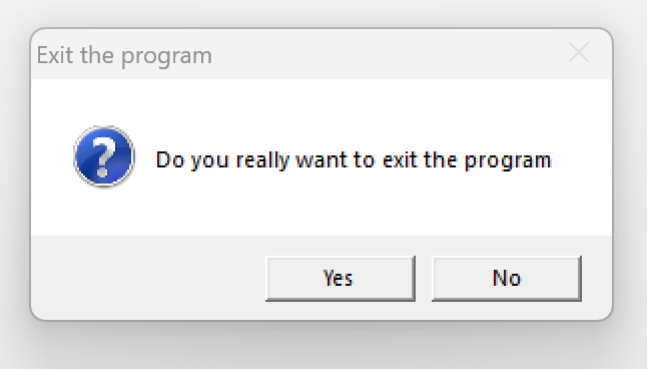
Example : Exit key programming from the program.



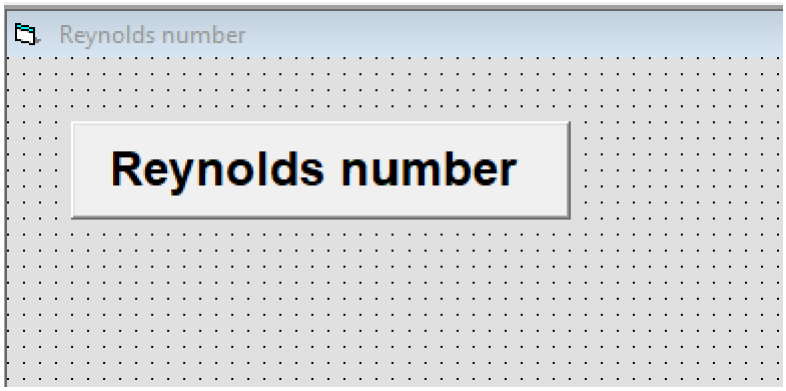
Put the following code in the command key and run the program.

```
Private Sub Command1_Click()
A = MsgBox("Do you really want to exit the program", 36, "Exit the program")
If A = 6 Then
End
End If
End Sub
```

The following message will appear through which, depending on the user's reaction, the program will be exited if the Yes key is pressed or the return to the original window if the No key is pressed.

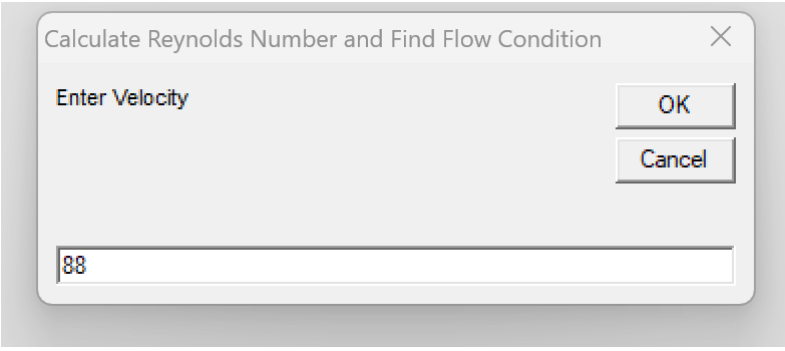


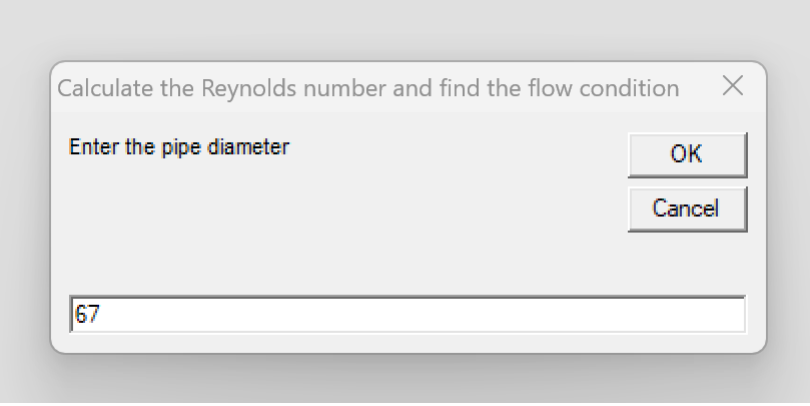
Example : A program must compute the Reynolds number by entering the density, velocity, diameter, and viscosity values through the InputBox. Where the program gives us the flow status using Msgbox.
Window Layout: A window with only one Command key

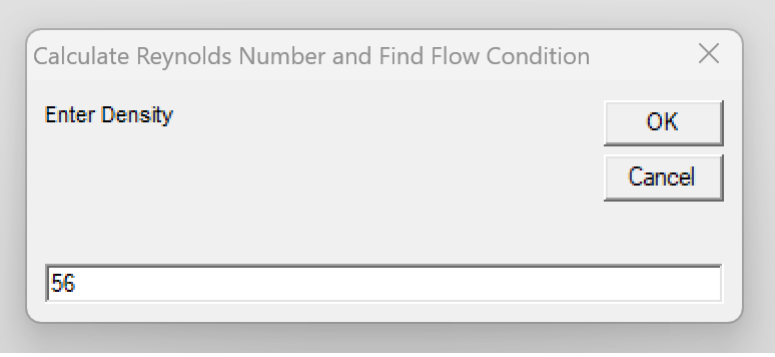


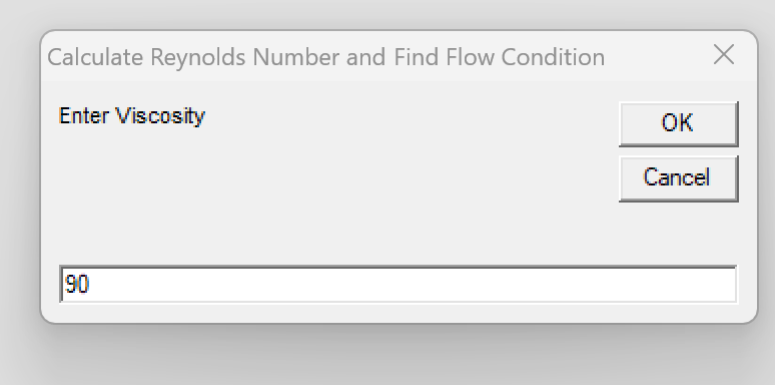

```
Private Sub Command1_Click()
U = InputBox ("Enter Velocity", "Calculate Reynolds Number and Find Flow Condition", "")
D = InputBox ("Enter the pipe diameter", "Calculate the Reynolds number and find the flow condition", "")
P = InputBox ("Enter Density", "Calculate Reynolds Number and Find Flow Condition", "")
M = InputBox ("Enter Viscosity", "Calculate Reynolds Number and Find Flow Condition", "")
Re$ = (P * U * D) / M
MsgBox ("Re. No.=" + Re$)
End Sub
```

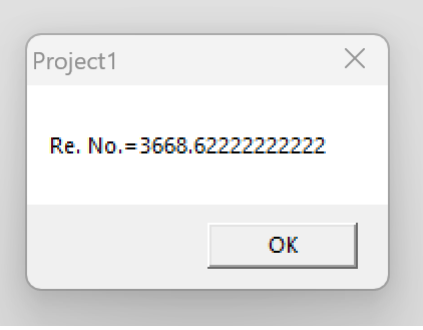
Execution: When pressing the start key, the entry boxes will appear according to the sequence in the code, where the user must enter a value each time and press the Ok key.




Calculate the Reynolds number and find the flow condition
Enter the pipe diameter
OK
Cancel
67


Calculate Reynolds Number and Find Flow Condition
Enter Density
OK
Cancel
56

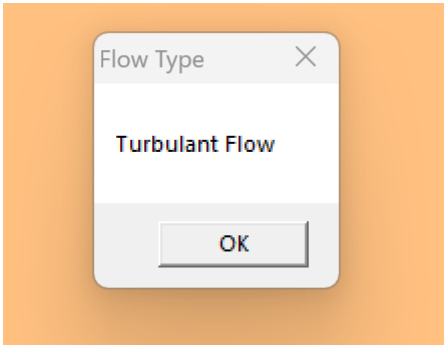

Calculate Reynolds Number and Find Flow Condition
Enter Viscosity
OK
Cancel
90


Project1
Re. No.=3668.62222222222
OK

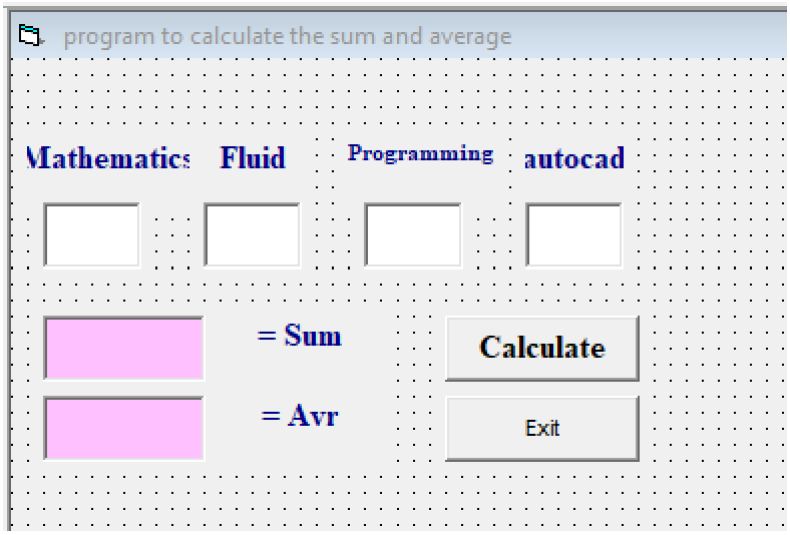
In the case of showing the flow type, the code is as follows.

```
Private Sub Command1_Click()
U = InputBox ("Enter Velocity", "Flow Type", "")
D = InputBox ("enter Diameter", "Flow Type", "")
P = InputBox ("Enter Density", "Flow Type", "")
M = InputBox ("Enter Viscosity", "Flow Type", "")
Re = (U * D * P) / M
If Re < 2000 Then
MsgBox "Laminar Flow", 0, "Flow Type"
Else
MsgBox "Turbulent Flow", 0, "Flow Type"
End If
End Sub
```

Execution: When pressing the start key, the entry boxes will appear according to the sequence in the code, where the user must enter a value each time and press the Ok key. The output will be as follows:



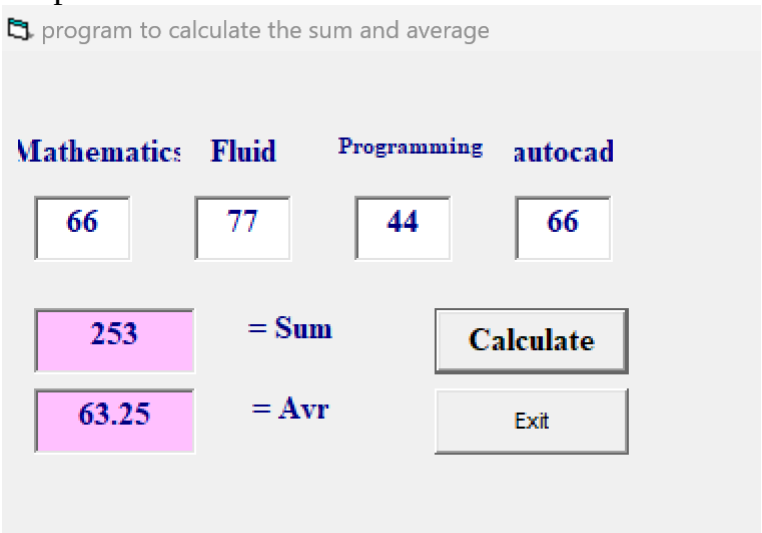
Example : It is required to create a program to calculate the sum and average of four lessons with a condition in the program to inform the user of a message when one of the values is more than 100, as this message gives the user the option to either exit the program or return to the original window and reset the values of the lessons.
Window design:



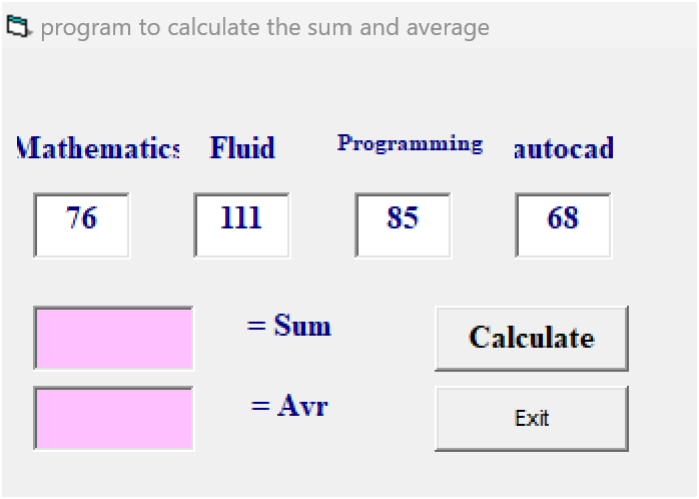
The Code:

```
Private Sub Command1_Click()
If Text1 > 100 Or Text2 > 100 Or Text3 > 100 Or Text4 > 100 Then
A = MsgBox ("A score of more than 100 would you like to exit the program", 36,
"Exit the program")
    If A = 6 Then
    End
    Else
    Text1 = ""
    Text2 = ""
    Text3 = ""
    Text4 = ""
    Text5 = ""
    Text6 = ""
    End If
Else
Text5.Text = Val (Text1) + Val(Text2) + Val(Text3) + Val(Text4)
Text6.Text = Text5 / 4
End If
End Sub
Private Sub Command2_Click()
End
End Sub
```

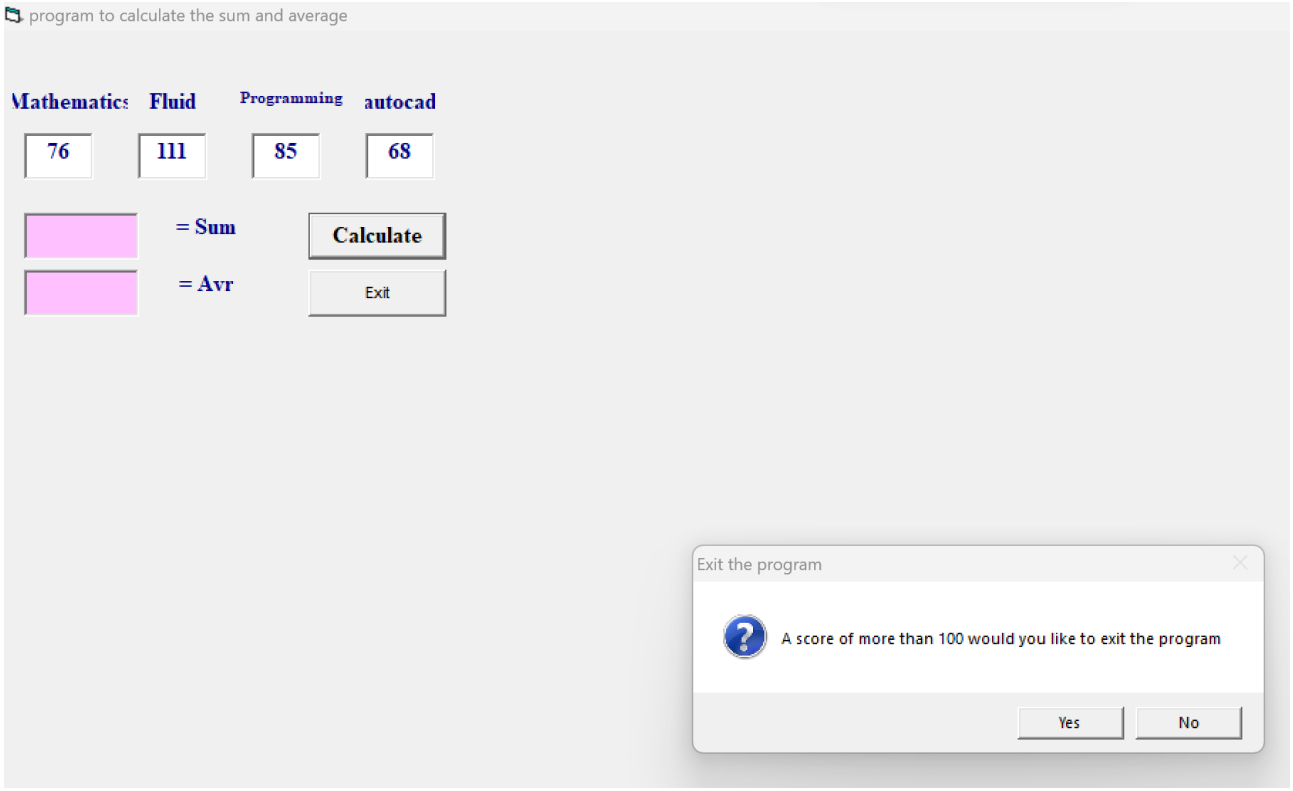
Execution 1: The output will be as follows:



Execution 2: When placing a value of more than one hundred in one of the text boxes and pressing the (calculate) key, a message will appear that gives the user the option to either exit the program or return to the original window and reset the values.



The following message will appear through which, depending on the user's reaction, the program will be exited if the Yes key is pressed or the return to the original window and the text boxes will be cleared if the No key is pressed.

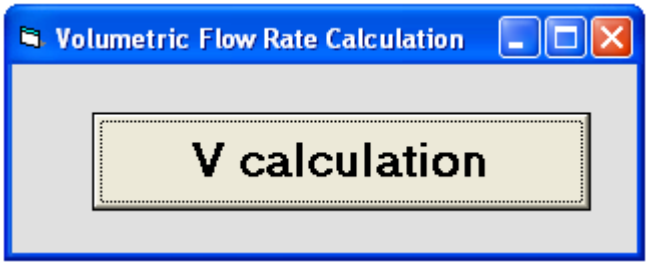


Example : A program is required to calculate the volumetric flow rate with the following specifications:

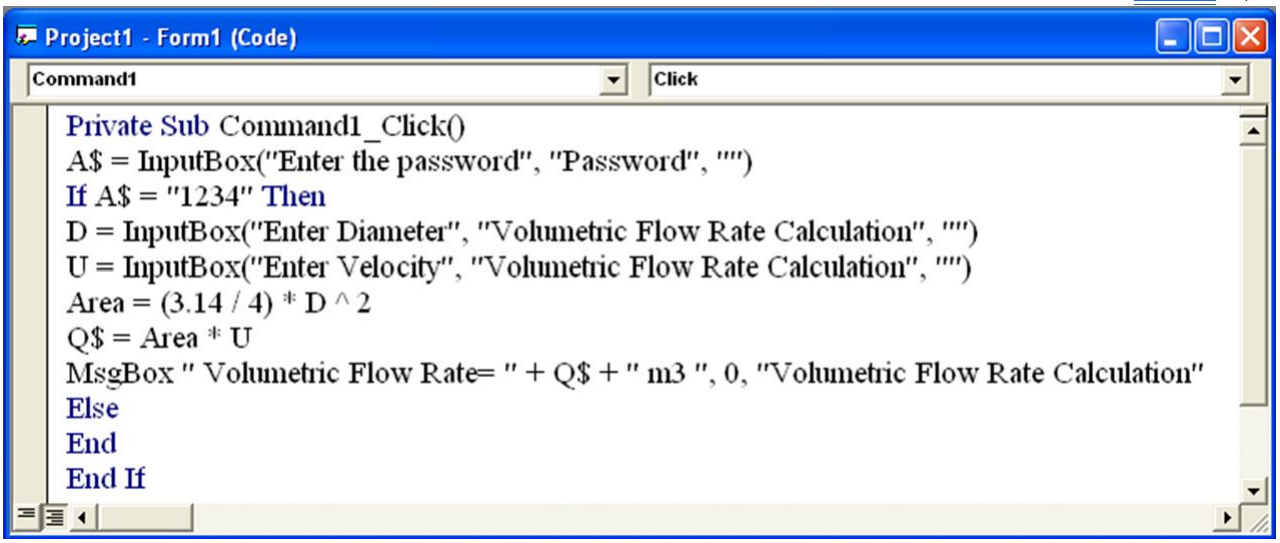
•The command key contains a secret number, 1234, and the program will only work when you enter it.

•In the program, pipe diameter and speed values are entered through InputBox. Where the program gives us the volumetric flow rate through Msgbox.

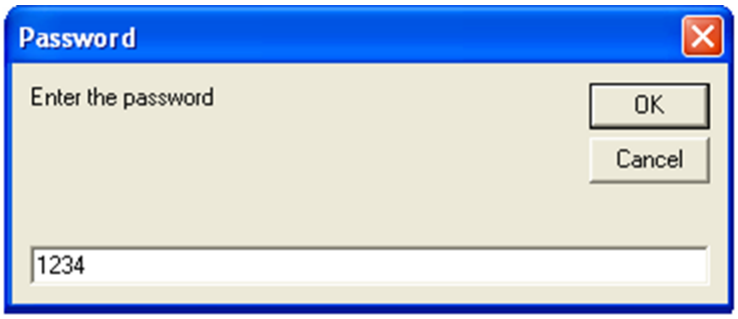
Window Layout: A window with only one Command key.

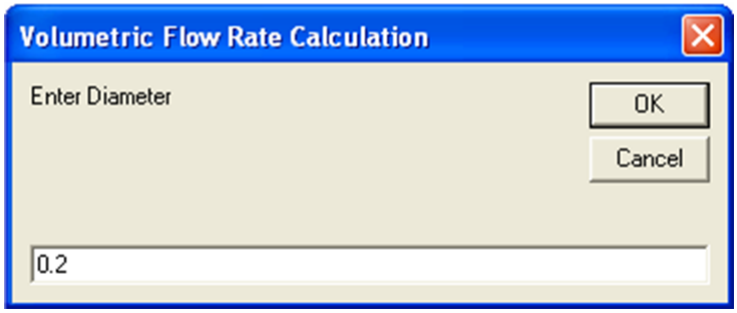


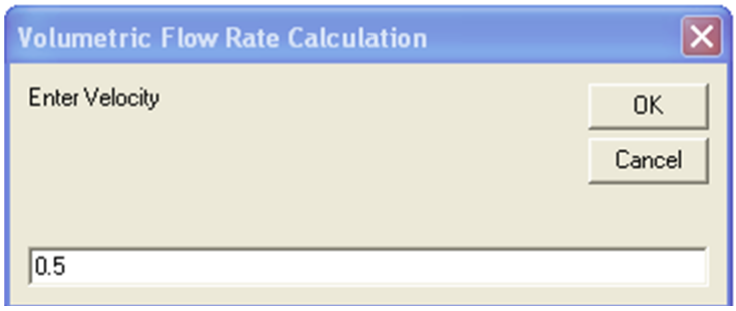
The Code:



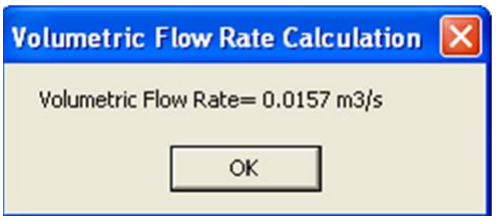
Execution: The following dialogue box will appear when the program runs, asking us for the password. When a wrong password is entered, the program will close, but when the correct password is entered, and the OK key is pressed, the rest of the input boxes for diameter and speed will continue to appear.







In the end, the output appears in the following message:



In the previous message, we used the plus sign + to combine the texts "Volumetric Flow Rate" with "0.0157" and "m3/s".

Exercise 1: It is required to create a password with a value of (AAC24BW) for the program window, Form. The program will not be loaded unless the correct password is entered through an entry box.

Exercise 2: A program is required to find the average of the second-stage lessons in the Chemical Engineering Department. Use the input boxes to enter the grade for each lesson and the message boxes to output the average.