

كمبيوتر

شبتز 4

الشيت الرسمي



Programming Language

1- CHOOSE THE CORRECT ANSWER:

1.1- a language used in game development:

- a- VHDL
- b- HTML
- c- Java
- d- SQL

1.2- A language used in database development:

- a- Visual basic
- b- Visual FoxPro
- c- DarkBasic
- d- All the above

1.3- A language used in Artificial Intelligence(AI) development

- a- C++
- b- Prolog
- c- AIML
- d- All the above

1.4- A language used in Hardware design:

- a- Java
- b- VHDL
- c- AIML
- d- None of these

1.5- A language used in web pages development:

- a- Basic
- b- VHDL
- c- PHP
- d- HTML
- e- c & d**

1.6- Errors in a program are called:

- a- Warnings
- b- Bugs**
- c- syntax
- d- All of above

1.7- In what language is UNIX written?:

- a- Basic
- b- VHDL
- c- C**
- d- HTML

1.8- A programming technique incorporating encapsulation and inheritance:

- a- OBJECT-ORIENTED**
- b- NON-PROCEDURAL
- c- Structured
- d- All of above

1.9 A variable in a programming language

- a- has a value that can change during a program execution
- b- is a storage location paired with a name
- c- a & b**
- d- none of these

1.10 A constant in a programming language

- a- is a storage location paired with a name
- b- has a value that cannot change during a program execution
- c- a & b**
- d- none of these

2. What's the difference between scope and lifetime with regard to variable declarations?

Answer:

A variables scope refers to the range of the program in which the variable can be referenced.

Its lifetime refers to the period of time during which it can be referenced.

3. Compare between structured and object oriented programming?

Answer:

Structured programming can be defined as a programming technique that follows a top down design approach. This style of programming is characterized by the programmers tendency to divide his program source code into logically structured blocks which would normally consist of conditional statements, loops and logic blocks.

Object-oriented programming can be defined as the process of using several classes to represent different areas of functionality or data objects within a software application. These data objects have data fields and functions that act on the data fields. They hold three main characteristics which are encapsulation, inheritance, and polymorphism. Examples of objects would include windows, menus, text inputs, icons, etc. There must be procedures to manipulate them.

4. What are the types of control structures which are used to write any computer program?

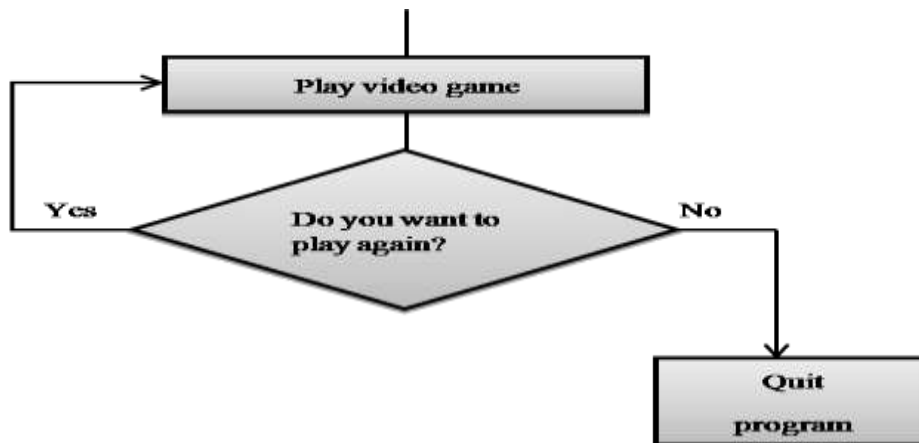
Answer:

1. Sequential structure

Sequential is simply group of commands that the computer follows one after another. Most simple programs just consist of a list of commands that the computer follows from start to finish.

2. Selection structure

Selection consists of two or more groups of commands. At any given time, the computer may choose to follow one group of commands or another. Selection allows a program to make a decision based on a certain condition. For example, at the end of most video games, the program asks you, "Do you want to play again (Yes or No)?" If you choose Yes, the program lets you play the video game again.



3. Loop structure

A loop consists of two parts:

- The group of commands that the loop repeats
- A command that defines how many times the loop should run

5. Create a new project using Visual Studio Express 2012 , name it project1.

Answer:

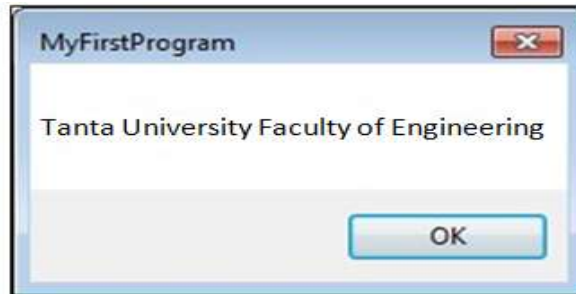
1. start a new Visual Studio Express 2012 project
2. click on New Project to launched The Visual Studio
3. select Visual Basic from the new project page
4. select Windows Forms Application
5. change the default project name from WindowsApplication1 to project1atthe bottom of this dialog box

6. How can you show the toolbox window after creating new project?

Answer:

When you click on the Toolbox tab, the common controls Toolbox will appear. Visual Basic 2012 IDE comprises a few windows, the Form window, the Solution Explorer window and the Properties window.

7. Using Visual Studio 2012, write a program that display the following dialog box.



Answer:

```
Public Class Form1
```

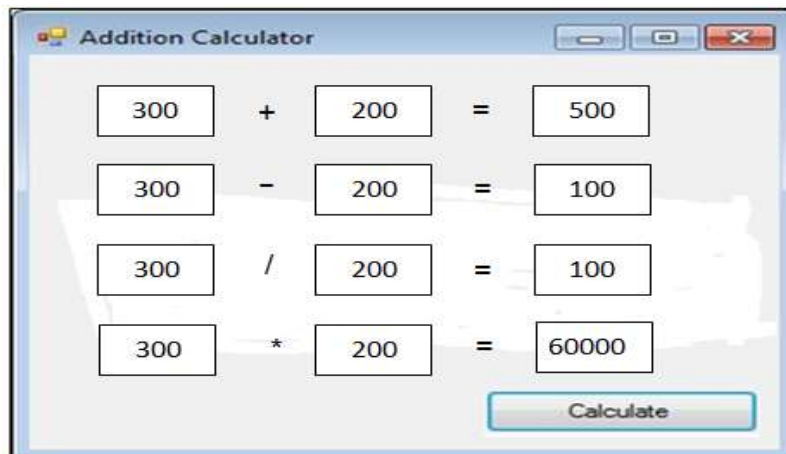
```
Private Sub Button1_Click(sender As Object, e As EventArgs) Handles Button1.Click
```

```
MsgBox("Tanta University Faculty of Engineering")
```

```
End Sub
```

```
End Class
```

8. Using Visual Studio 2012, write a program that performs basic arithmetic operations: addition, subtraction, multiplication, and division for two numbers and displays the following output.



Answer:

```
Public Class Form1
```

```
Private Sub Button1_Click(ByVal sender As System.Object, ByVal e As  
System.EventArgs) Handles Button1.Click
```

```
Dim num1, num2, add As Single
```

```
num1 = TextBox1.Text
```

```
num2 = TextBox2.Text
```

```
add = num1 + num2
```

```
Label1.Text = add
```

```
Dim num3, num4, subtract As Single
```

```
num3 = TextBox3.Text
```

```
num4 = TextBox4.Text
```

```
subtract = num3 - num4
```

```
Label2.Text = subtract
```

```
Dim num5, num6, divide As Single
```

```
num5 = TextBox5.Text
```

```
num6 = TextBox6.Text
```

```
divide = num5 / num6
```

```
Label3.Text = divide
```

```
Dim num7, num8, product As Single
```

```
num7 = TextBox7.Text
```

```
num8 = TextBox8.Text
```

```
product = num7 * num8
```

```
Label4.Text = product
```

```
End Sub
```

```
End Class
```

9- Draw a flow chart to find the summation and the average of a set of numbers N.

