

Use of Macros in VBA Programming Language in Power Point

Mirzaxmedova Nargiza Dilmurodovna

Teacher of TDPU named after Nizami



Abstract – The use of macros in the Visual Basic for Application (VBA) programming language in applications in the Microsoft Office suite is a separate, unique topic in the study of computer science. On the one hand, macro programming in VBA creates many possibilities that cannot be achieved using standard tools of office applications (for example, on the keyboard, converting characters when typing an error in the Russian text Latin register in Word, or interactive testing in PowerPoint presentations). However, on the other hand, the study of this topic is very complex. This is why the tutorial literature often bypasses this topic (or, at the very least, is limited to describing how to perform simple entries in a macro as a sequence of user interactions with menus, buttons, and other elements of the interface). However, it is very difficult to find macro-programming literature, so very few users know how to use this convenient and universal mechanism of filling the functionality of office applications.

Keywords – Macros, VBA, Power Point.

I. INTRODUCTION

The use of macros in the Visual Basic for Application (VBA) programming language in applications in the Microsoft Office suite is a separate, unique topic in the study of computer science. On the one hand, macro programming in VBA creates many possibilities that cannot be achieved using standard tools of office applications (for example, on the keyboard, converting characters when typing an error in the Russian text Latin register in Word, or interactive testing in PowerPoint presentations). However, on the other hand, the study of this topic is very complex. This is why the tutorial literature often bypasses this topic (or, at the very least, is

limited to describing how to perform simple entries in a macro as a sequence of user interactions with menus, buttons, and other elements of the interface). However, it is very difficult to find macro-programming literature, so very few users know how to use this convenient and universal mechanism of filling the functionality of office applications.

Macro programming in VBA can be one of the current topics of informatics in educational institutions, including the continuation (or extension) of the topic of programming in Visual Basic. Also, although VBA is somewhat unique, Visual Basic can serve as an environment that is always at our disposal for programming learning

purposes (a custom programming environment will need to be purchased and installed separately).

Different levels of practical assignments allow students to work independently (but under the guidance of a teacher) on the basic issues of applying macro programming in VBA in PowerPoint environment during the lessons in the field of information technology in the creation of test assignments in computer science and mathematics. Such assignments can form the basis of students' design, organization of research work. First-level assignments are simple enough, second-level assignments are more complex, and require relatively more time to complete, but next-level assignments require partial application of the results of previous-level assignments. In this case, the teacher uses the features of different levels of the proposed tasks at his / her own discretion or taking into account the specifics of the class, divides the class into several groups with different levels of preparation, gives only first and second level assignments to weaker students, and so on. In addition to assignments, it can also assign tasks at the next level. The teacher can also use "high" level assignments as a backup to give students who have completed the previous level assignments ahead of time. Finally, in the simplest case, the teacher can guarantee that the correct completion of the first two levels of assignments in front of the students guarantees

a grade of "3", while the completion of the next level assignments ensures that another grade is added to the grade.

However, the examples given in Visual Basic for Application are very unique in a number of cases, because even the built-in help descriptive (Help) does not describe the relevant material clearly enough, so some programming methods have been found experimentally by the authors.

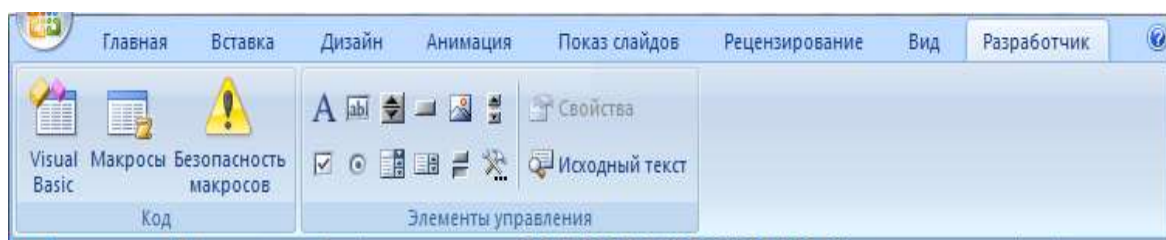
It is recommended to complete the tasks listed below sequentially, as the material learned in previous assignments will be used in completing subsequent assignments and will not be repeated in detail.

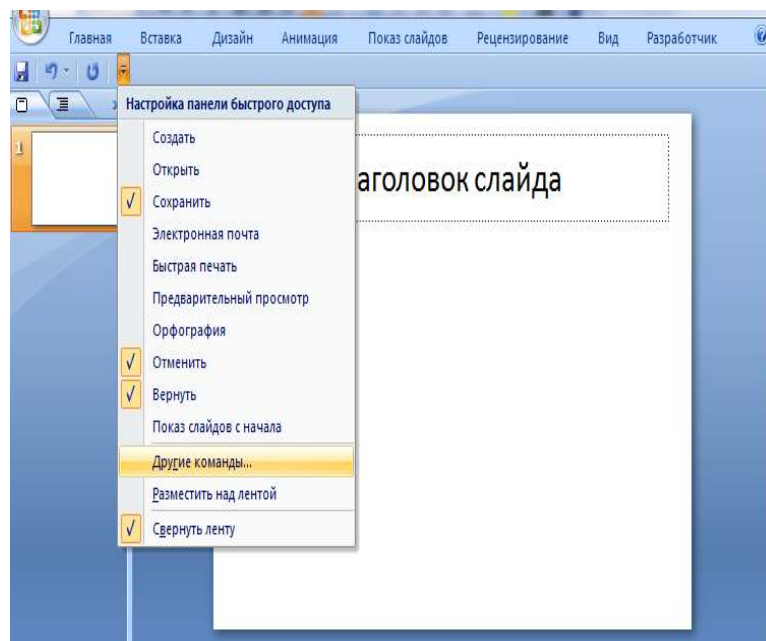
II. ASSIGNMENTS

1. Create a presentation called vba.ppt in PowerPoint 2007. Create a new slide in this presentation with the layout Tolko zagolovok ("Only title"). Enter the subject "Write subject names" in the title.
2. Place an image of the following images on the slide.

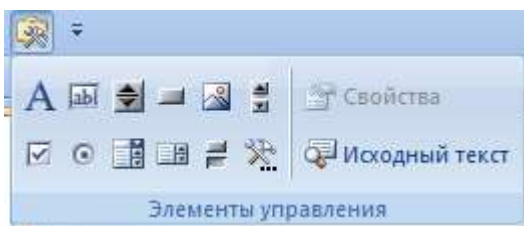


3. Select the Developer menu and see the buttons in the Control Elements section of that menu.



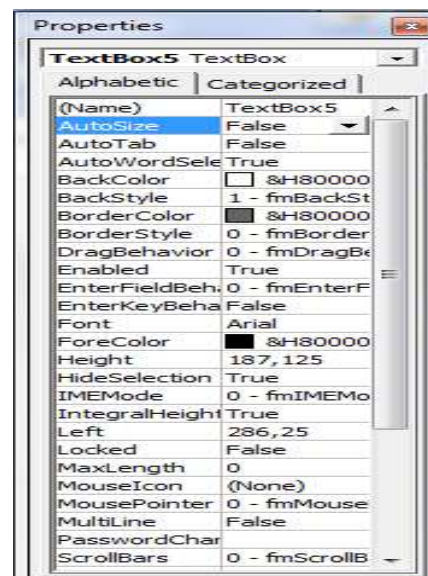


4. If you want to ensure that these buttons are available on the toolbar, select this panel, then set the button to configure the panel to access the controls directly using the **other teams** section.
5. Check for icons in the toolbar row and view the commands by selecting with the left mouse button.



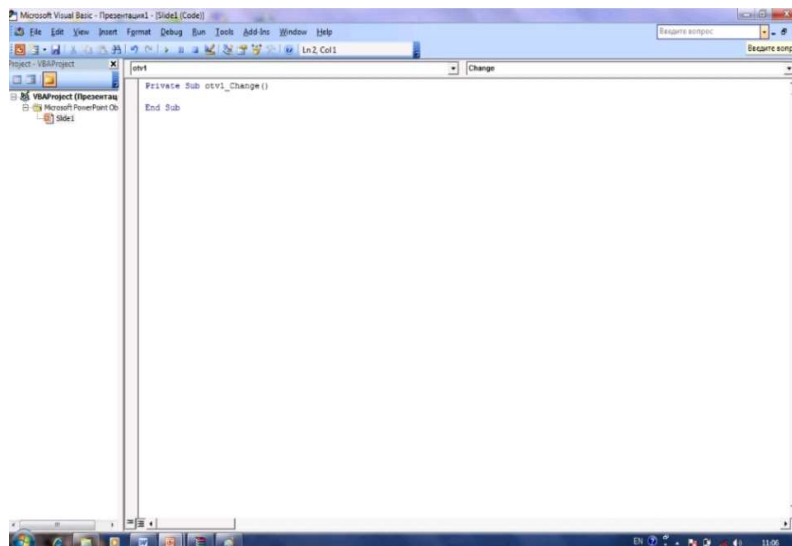
6. Select the Pole button on this panel. The pointer comes to view + mode and we mark a rectangular area in front of the computer image.

7. Right-click in this area and select Properties from the context menu. Create a Properties window on the screen and get acquainted with its contents.



The property name on the left side of this window will be the value of the property on the right side. This value can be entered by selecting from the keyboard or from an available list

8. Replace TextBox1 in the Name field in the Properties row with question1.



9. Double-click the left mouse button in the selected area to see the Visual Basic for Applications (VBA) code editor window open.

In the working window, two drop-down lists are visible, on the left is a selection list of available objects in this presentation, and on the right is a list of events that can be created with objects.

At the bottom of the code window is the program text, and it is possible to assign multiple events to each object, depending on the selected event.

10. In the window that opens, place the following command by pressing the Tab key between the lines Private Sub question1_Change () and End Sub

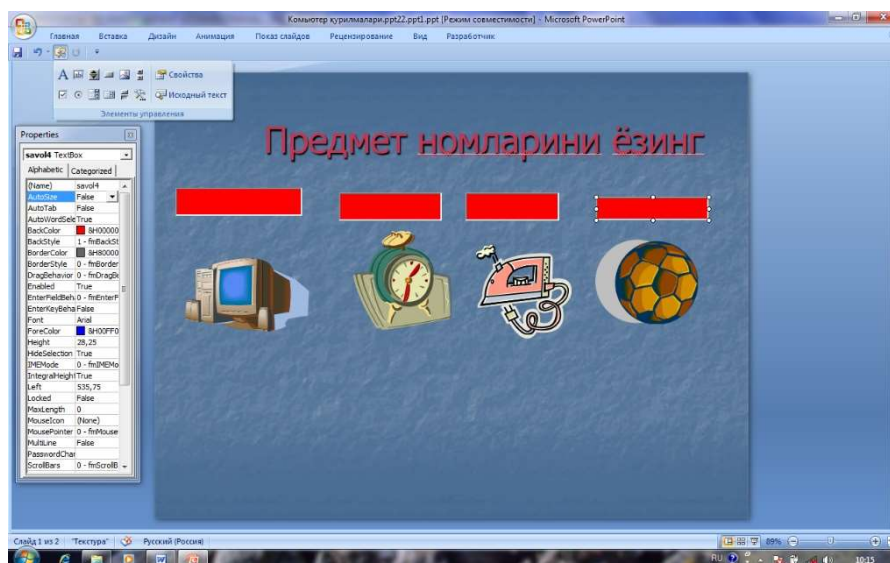
If question1.Text = "computer" Or question1.Text = "computer" Then s1 = 1 Else s1 = 0

11. In the left window of the code editor, select the item (General) and observe the state of entering the global variable constants that appear automatically (Declarations), placing the cursor on the first line of the code window and enter the following program code.

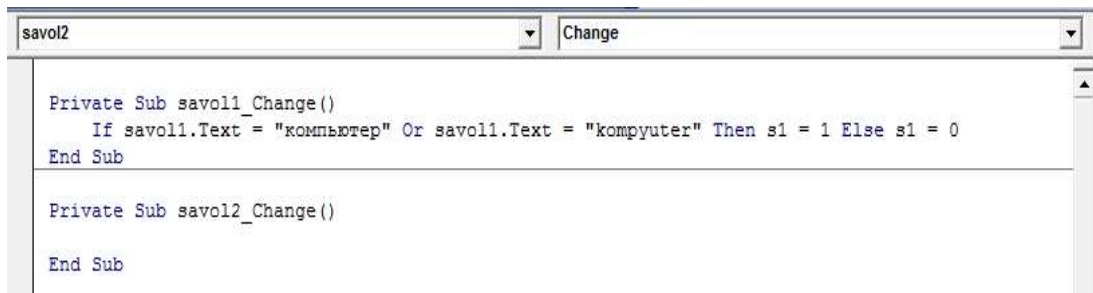
Dim S, s1, s2, s3, s4 As Integer

12. To save, select the button from the toolbar and go to the PowerPoint program window.

13. Place text fields next to each subject image as shown above and replace them with question2, question3, and question4, respectively.



14. If the left mouse button is selected twice in the text field of Question 2, the code editor window will open and the following commands will be placed in it.



In the window, the program is separated from each other by a horizontal straight line. If the Tab key is selected, it is switched from left to right and enter the following command.

```
If question2.Text = "hour" Or question2.Text = "hour" Then  
s2 = 1 Else s2 = 0
```

The first line contains variables, namely:

```
Dim s1, s2 As Integer
```

15. Thus enter the program for the remaining question3, question4 fields.

As a result, the program code will appear in the editors window as follows:

```
Dim S, s1, s2, s3, s4 As Integer
```

```
If question1.Text = "computer" Or question1.Text =  
"computer" Then s1 = 1 Else s1 = 0  
End Sub
```

```
Private Sub savol2_Change ()
```

```
If question2.Text = "hour" Or question2.Text = "hour"  
Then s2 = 1 Else s2 = 0  
End Sub
```

```
Private Sub savol3_Change ()
```

```
If question3.Text = "iron" Or question3.Text = "iron" Then  
s3 = 1 Else s3 = 0  
End Sub
```

```
Private Sub savol4_Change ()
```

```
If question4.Text = "ball" Or question4.Text = "ball" Then  
s4 = 1 Else s4 = 0  
End Sub
```

16. Using the Control elements command from the toolbar, select the mouse pointer button icon and create it in any part of the slide so that its name is the result. From the Properties window for the created button, do the following:

- (noun) -result
- BackColor - Choose a creative color
- The title is true
- Font - format the word on the button, a new font - Arial, font - bold, size -18, as a result, wait to see the button.

17. Open the code editor window by double-clicking the left mouse button on the created button and enter the program code (previous and last lines are done automatically on the computer)

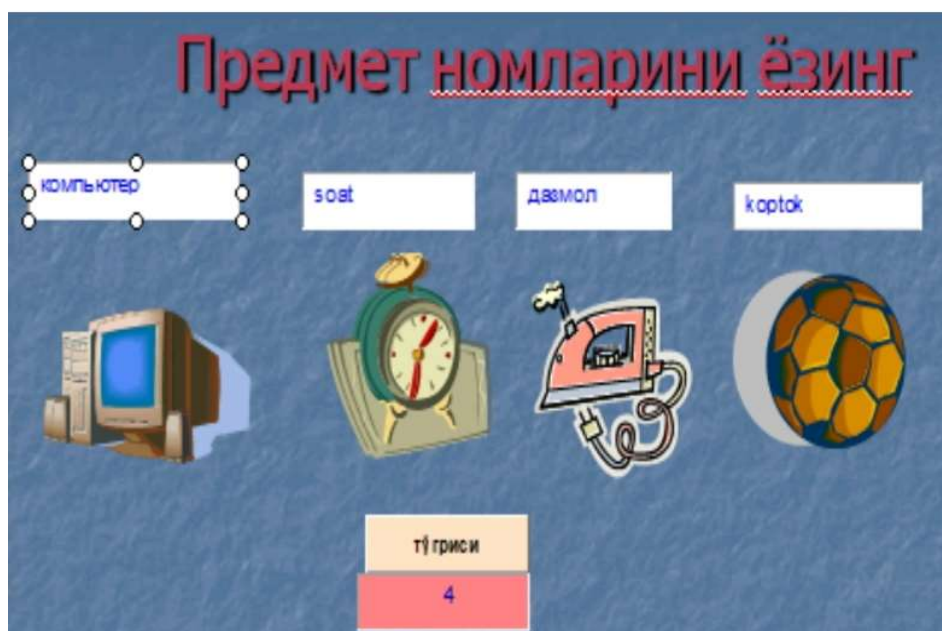
```
Private Sub result_Click ()  
S = s1 + s2 + s3 + s4  
baho.Text = S  
End Sub
```

Also enter an additional C (number of correct answers) in the first row of variables, ie

```
Dim S, s1, s2, s3, s4 As Integer
```

18. In the Code Editor window, select the Save button from the toolbar, go to the PowerPoint window, select the F5 key on the keyboard, enter the name of the images, and left-click on the button.

19. If the result is less than 4, it will be difficult to determine which answer is incorrect. We will consider separating the answer by colors, which is entered by



clicking on the button in the editors window, and in addition to the program code is required to enter the following program.

```
If s1 < 0 Then savol1.BackColor = vbGrenn Else savol1.BackColor = vbRed
```

```
If s2 < 0 Then savol2.BackColor = vbGrenn Else savol2.BackColor = vbRed
```

```
If s3 < 0 Then savol3.BackColor = vbGrenn Else savol3.BackColor = vbRed
```

```
If s4 < 0 Then savol4.BackColor = vbGrenn Else savol4.BackColor = vbRed
```

20. After making the change, take a look at the presentation in memory, that is, enter the answers and check by selecting the button. In this case, the correct answer is black and the incorrect answer is red.



21. If the entered answer is not satisfactory, the computer indicates that such answer is incorrect, then you will need another button, which will clear the entered words with this button and write a new one instead. To do this, select the icon and create it in any part of the slide and let its name be clear, do the following from the Properties window for the created button:

- (name) -clean
- Let the Caption line be empty
- BackColor - Select an optional color

Then enter the editor window via the button and type the following program code.

```
Private Sub Clear_Click ()
```

```
baho.Text = ""
```

```
question1.Text = ""
```

```
question2.Text = ""
```

```
question3.Text = ""
```

```
question4.Text = ""
```

```
End Sub
```

While memorizing, select the F5 (slide show s nachala) key and check the presentation once you are sure it is correct.

Working with macros gives good results if the lesson is taught through such definitions.

REFERENCES

- [1] Internet www.infojournal.ru
- [2] Informatics and Education, №5-2009 (14-22 b)