12ᵗʰ-TECH-FEST-2023
International Multidisciplinary Conference
Hosted from Glasgow | England
30ᵗʰ December, 2023

www.confrencea.org

Use of macros in the Microsoft Office package

Mirzakhmedova Nargiza Dilmurodovna
TDPU in the name of Nizomi
Senior teacher of the Department of Mathematics and TAT
Erkinova is the daughter of Maftuna Ravshan
Primary education group 412

Abstract: *This article describes the use of macros in the Visual Basic for Applications (VBA) programming language in Microsoft Office applications, as well as commands that automate the work that the user can do in the VBA programming language. One of the opportunities that cannot be achieved with the standard tools of Office applications is the possibility of interactive testing in PowerPoint presentations.*

Key words: *macros, Visual Basic for Applications (VBA), interactive test, control tests, control tests, Developer, control buttons, properties window*

The use of macros in the Visual Basic for Applications (VBA) programming language in the applications of the Microsoft Office software package 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 with the standard tools of office applications, for example, when using a keyboard, converting characters when typing a Russian text in Latin case in Word, and conducting interactive tests in Excel or PowerPoint presentations. In MS Access, a macro is a sequence of actions. They are stored in a window reminiscent of a table so that they are stored in the order in which they should be executed. These actions are executed when the MS Access macro is run. Macros make using Access much easier. Macros are useful for binding buttons on forms. Operations can be performed using these buttons. Macros can be used to create custom add-ons and dialog boxes.

However, on the other hand, it is very difficult to study this topic. That's why this topic is often avoided in educational literature (or, at least, is limited to describing how to perform simple entries in macros as a sequence of user actions with menus, buttons and other elements of the interface). At the same time, it is very difficult to find macro-programming literature, so very few users know how to use such a convenient and universal mechanism for completing the functionality of office applications.

Macro programming in VBA can be one of the important subjects of computer science in educational institutions, as well as a continuation of the subject of programming in Visual Basic. Also, while VBA is a bit unique, Visual

Basic programming can serve as an always-on environment for learning purposes (and custom programming environments can be purchased and installed separately). will need to be installed).

The following practical tasks of different levels allow to work independently (but under the guidance of the teacher) during the lessons, the main issues of using macro programming in VBA in the PowerPoint environment, in the example of creating interactive test tasks in computer science and mathematics. Such tasks can form the basis of designing and organizing research work of students. The first level quests are simple enough, the next level quests are more complex and take relatively more time to complete, but the next level quests require partial application of the results of the previous level quests. In this case, the teacher, at his own discretion, or taking into account the specific characteristics of the class, uses the features of different levels of the proposed tasks in order to activate teaching, divides the class into several groups with different levels of preparation, and Mastery may give weaker students only level 1 and level 2 tasks, and stronger students may give higher level tasks in addition to these tasks. Also, the teacher can use the "higher" level tasks as a reserve to give to the students who managed to complete the tasks of the previous level before the deadline. And finally, in the simplest version, the teacher should make it a condition for the students that the correct completion of the first two level tasks will guarantee a grade of "3", and the completion of the next level tasks will add one more point to the grade. Possible

At the same time, the examples presented in Visual Basic for Applications are in some cases very unique, because even the built-in help description (Help) does not describe the relevant material clearly enough, so some programming methods were found experimentally by the authors.

Control tests are different from audit tests. In the control tests, it is not reported whether the question was answered correctly or incorrectly, regardless of how the answer was given, it is passed to the next question, that is, it is not possible to return to the previously answered question. When conducting control tests, i.e. at the end of the test, the number of correct and incorrect answers, the student's score from the control must be displayed on the screen.

The PowerPoint program has the ability to create control tests, and actions such as setting buttons, determining the number of correct and incorrect questions, and calculating the points collected from the control are performed directly using Visual Basic for Application (VBA). . The control buttons included in the slide are implemented using the "Developer" plug-in in the Microsoft Office package.

First of all, it is required to equip the slides for the control test

Content of slides:

Slide 1 is the title slide, where the "Start Test" and "Exit" buttons are placed. When the "Start test" button is pressed, "S", which counts the number of correct answers in the computer's memory, is set to zero and moves to the next slide.

Next slides 2-11 (equal to the number of questions participating in the test, i.e. the test will consist of 10 questions) are entered in the title line of the test question and the number of answer options to the control buttons equal to the number of answer options.
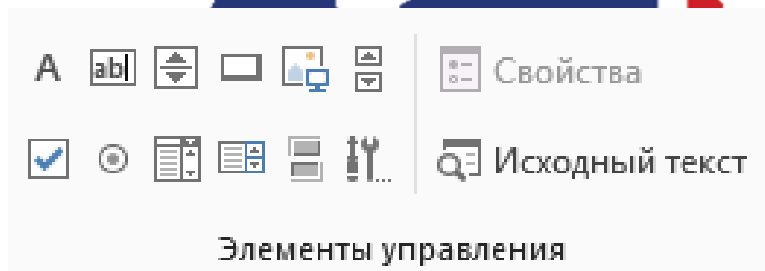
Slide 12 will be used to announce the test results. It contains the button "Exit" and "Return to the beginning of the test".

Do the following:

To make the Controls tab active, go to the File tab and select the Parameter command. Select the "Nastroit ribbon" section of the window that opens and set the "flag" in front of the "Developer" tab located in the right panel of the window and click the OK button.

Theoretical information:

The control buttons of the "Developer" tab are as follows

Today we know that many commands are automated, i.e. macrosed, used in application software (ADT). Students will need to know how to use macros to create their own automated system to deliver automated commands.

References:

1. Marco Fioretti lubit svobodnoe PO. Makrosy: Office automation. http://www.linuxformat.ru/download/189.pd

2. https://www.geeksforgeeks.org/difference-between-cloud-computing-and-fog-computing/?ref=rp

3.https://learn.microsoft.com/ru-ru/office/vba/library-reference/concepts/getting-started-with-vba-in-office

4.Axmatovich J. R. In vitro rearing of trichogramma (Hymenoptera: Trichogrammatidae) //European science review. – 2016. – №. 9-10. – C. 11-13.

5.Jumaev R. A. et al. The technology of rearing Braconidae in vitro in biolaboratory //European Science Review. – 2017. – №. 3-4. – C. 3-5.

6.Жумаев Р. А. Массовое размножение трихограммы на яйцах хлопковой совки в условиях биолаборатории и ее применение в

агробиоценозах //Халқаро илмий-амалий конфренция "Ўзбекистон мева-сабзавот маҳсулотларининг устунлиги" мақолалар тўплами. Тошкент. – 2016. – С. 193-196.

7.Жумаев Р. А. Значение представителей семейства BRACONIDAE в регулировании численности совок в агробиоценозах //ЎзМУ Хабарлари. – 2017. – Т. 3. – №. 1.

8.Жумаев Р. А. РАЗМНОЖЕНИЯ ИН ВИТРО BACON HABETOR SAY И BRACON GREEN ASHMEAD //Актуальные проблемы современной науки. – 2017. – №. 3. – С. 215-218.

9.Axmatovich J. R. In Vitro Rearing of Parasitoids (Hymenoptera: Trichogrammatidae and Braconidae) //Texas Journal of Agriculture and Biological Sciences. – 2022. – Т. 4. – С. 33-37.

10.Suleymanov B. A., Jumaev R. A., Abduvosiqova L. A. Lepidoptera Found In Cabbage Agrobiocenosis The Dominant Types Of Representatives Of The Category Are Bioecology //The American Journal of Agriculture and Biomedical Engineering. – 2021. – Т. 3. – №. 06. – С. 125-134.