DEVELOPMENT OF PROFESSIONAL COMPETENCE IN STUDENTS ON THE BASIS OF PROGRAMMING TECHNOLOGIES

Sa'dullayev Avaz Akmal o'g'li

a teacher of the Department of Computer Systems, non-state educational institution
"Economics and Pedagogical University"

O'ktamova Sabrina Umarjon qizi

a student of non-state educational institution
"Economics and Pedagogical University"

ABSTRACT

The article examined the forms, tools and methods of training aimed at developing professional competence on the basis of programming technologies for students.

Key words*: computer, internet, application, competence, educational technology.*

Introduction. The present time cannot be tasted without computational techniques (computers) and Information Technology of any area of human activity. Being able to use them wisely and efficiently remains a must for every educated and educated person today. It is imperative and necessary to introduce the field of programming technologies to the students of our country and deliver them at the level of the requirements of the time. To do this, it is necessary for us to educate students in programming science and thinking. In order for the student to prepare young people from the subject of programming technologies with knowledge, thinking, it is advisable to implement them using modern programming languages, which are considered the main part of the science of programming technologies. The benefits of modern programming languages are that when a student learns these languages, the need arises to learn a number of small programs and practical packages and, as a result of these studies, contributes to an increase in student thinking. In the study of modern programming languages and in order to build a program using these programs, the student will have to perfectly study not only the science of programming, but also other subjects[1].

Main part. We will talk about ways to learn programming. In the computer world, there are many programming languages, and the number of people interested in

programming and it is growing. Programs that do the same type of work can be written in Basic, Pascal, C and other languages. Pascal, Fortran, and Kobol are universal languages, while C and Assembler are languages much closer to mashi, and are lower- or middle-level languages. The closer an algorithmic language is to human languages, the higher the language is called. Machine language is the lowest-level language[1]. The machine language consists of these numbers, for example: the programming languages 01011010001010101 are divided into 2 large groups, the lower and upper level programming language. The lower-level programming language is much more complex-they are used in very special areas, and their specialists are also very few. Because lower programming languages (e.g.: assembler) may often be needed when working with microprocessors. A high-level programming language is commonly used for various programming jobs. EHM (electronic computing machine) is now included in programming at the time of its occurrence, only in machine languages i.e. in codes of actions that an EHM must perform using numbers. The tushinar number for the machine in this case was 2-lik, 6-lik, 8-lik number systems as a system[2]. The program is entered by means of numbers in this number system. In high-level programming, languages in machine-adapted (directed) character codes are considered as opposed to machine languages. The basic principles of character-coded languages are that machine codes are marked with characters corresponding to them, and automatic memory allocation and error assignment are included[3]. Such a machine received the name of an adapted language - assembly language.   Typically programming is done on a high-level programming languages (Delphi, Java, C++, Python) tool. Due to the proximity of the semantics of these programming languages to the human language, the process of building a program is much easier. Widely used programming languages. All the languages we know and use now belong to this group. They are written in a language that is "understandable" to a person. Fluent English speakers can understand the software code without difficulty. This group includes Fortran, Algol, c, Pascal, Cobol and other languages. The first languages to appear can be used, from modern languages to modern ones. But, in languages running through current web technology (PHP, ASP.NET, JSP) such programs are not structured[3]. Because for such programs to work, another practical program must be developed. Currently, applications are compiled mainly in languages such as Visual C++, C#, Borland Delphi, Borland C++, Java, Phyhon[3]. In Uzbekistan, most youth use Delphi programming language in the educational process and automation of production processes. The main reason for this is the simplicity of using the dsturing language, the abundance of components, the intelligibility of the interface, etc.k. The first person to work in Delphi is also how easy it is to create a program. But, the user will be able to understand much later the

abundance of components and functions of the program in the Windows operating system, as well as the essence of the main performance. On the other hand, Delphi(Pascal) is much whiter when it comes to saving Ram. In it, variables and arrays that are not used at the cost of declaring variables in advance also take up space[3]. The most common programming language in the Windows operating system is the Microsoft Visual C++ language. Most programs are now structured in this language. In general, C programming language-like languages are now leaders in programming linear, branching, repetitive, and other mathematical problems[3]. On the basis of almost all modern programming languages, the C programming language serves as the basis. In addition, LUA script or JavaScript languages are also widely used in the construction of various computer games or in the preparation of small-scale applications. We will tell you about some of the programming languages used in desktop programming, which are now common: Delphi is one of the programming languages. Produced by the Borland firm. The Delphi programming language is used and was previously included as part of the Borland Delphi package. An alternative is bulgan, the same name used from 2003 to the present. Object Pascal is an object-oriented programming language derived from the Pascal language through a number of extensions and fillings. Originally this programming environment was designed to create applications exclusively for the Microsoft Windows practice system, and later adapted for GNU/Linux as well as Kylix systems, but production ceased after the 2002 Kylix 3 issue, and shortly thereafter Microsoft.NET it was announced that it would support the system. The programming language in the Lazarus Project practice (free Pascal) provides an opportunity to create applications for the GNU/Linux, Mac OS X and Windows CE platforms in the Delphi programming environment. Visual Basic (pronunciation: "Vijual Besik") is a programming language from Microsoft Corporation and a programming environment for it[1]. It received a lot of insights from basic and provides application progress with a fast picture interface. The last version 6.0 release arrived in 1998. Successor Visual Basic .NET from Microsoft appeared in 2002. Java programming language is one of the best programming languages in which it is possible to create products at the corporate level. This programming language emerged based on the Oak programming language. The Oak programming language had begun an effort in the early 90s by Sun Microsystems with the goal of creating a new generation of smart devices that would work without platform dependence[3].

To achieve this, The Sun staff planned to use C++, but for some reason abandoned this idea. Oak came out without success, and in 1992, Sun changed its name to Java, making certain changes to make it serve the development of WWW. Java is an object-oriented programming language and it is much similar to C++. The most frequent error-

causing parts were removed, making the Java programming language much simpler. The C++ programming language is a programming language designed to solve linear, branching, iterative, and other mathematical problems. The C++ programming language is used in the production of operating system-related snippets, client-server applications, exposure games, applications applied in daily need, and similar applications for various purposes.[3]. It is known that web programming languages require an additional program called a compiler to explain programs written in high-level programming languages to the computer. This is also the case with web programming. The one you use to view sites on the internet is browsers - a compiler of some of the web programming languages[]. There are other languages in Web programming that cannot be explained by translating them into a browser computer, but such languages form the basis of a web site[3]. To give such languages so that the browser understands, too, programs like web server will need a compiler or a set of interpreters. Such programs, on the other hand, stand on the servers on which the site is located, when you send a request to it, the web server programs on the server on which the same site is located will translate and send to your browser the places where the site is written in languages that the browser does not understand. So klient-that is, the translator that explains the codes of the website on your side to your computer is the browser, the translator that sends the website on the server side by translating into it the places that your browser does not understand is the web server[2].

Conclusion. Professional competence is usually understood as an integral feature of the business and personal qualities of specialists, reflecting the level of knowledge, skills and experience sufficient to carry out a certain type of activity associated with decision-making. In conclusion, it can be said that 60610200 - information systems and technologies of higher education (in branches and fields) the purpose of teaching students "algorithmic languages and programming" in the development of professional competence on the basis of programming technologies is to provide students with the scientific theoretical foundations of programming, knowledge that the computer science teacher should acquire in the professional field, To achieve this goal, the science performs the tasks of working students in Object-Oriented Programming Languages, forming theoretical knowledge, practical skills and competencies related to the construction of programs on practical issues.

In the course of reading this discipline, the student must have an idea of the theoretical foundations of Object-Oriented Programming Languages, object design, mathematical and interface objects, events and messages, message transmission in object-oriented environments, processing mechanisms, object hierarchy-based program design, specific object-oriented programming languages, and be able to

construct linear, networked and repetitive and modular programs in Object-Oriented Programming Languages,, in object-oriented environments, one will need to know and be able to design applications.

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