RELEVANCE OF PROGRAMMING LANGUAGES IN IT

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All programs that we use every day with our computers are written in one of the programming languages. A programming language is a set of instructions designed to communicate commands to computers. One of the earliest programming languages is Fortran, created in 1954. This language was improved in the following years, and other new languages adopted it as a basis. The main purpose of this language was originally scientific and technical calculations. Almost every language has a compiler, which is responsible for converting the source code into code that a computer can understand. This is because characters are represented on a computer by some numbers called character codes. Each language has its own purpose and capabilities.

We would like to talk about the following areas in IT that any beginner can choose. The first direction is Web development. Every day people visit various sites, but mostly do not even know how they are created. The main constituents of this industry are HTML, CSS and JavaScript [3]. We would like to tell you a little about each. HTML is a tag language, it allows user to structure texts properly, create paragraphs, as well as many separate blocks with texts. CSS is a page style language. It works with HTML and can assign text blocks to a position on the page, as well as apply different fonts, colors, and so on to the text. To put it simply, this language is responsible for what the user sees. JavaScript is an object-oriented programming language with which we can "animate" content on a web page, such as a form that a visitor fills out to register. It provides certain functionality to the user in contrast to the previous two languages. Knowing HTML, CSS and JavaScript, you can create your own website, upload it to any web host, and let other people use it.

Currently, mobile gaming has reached greater development, and therefore many specialists are beginning to study programming languages in which games can be developed. The most famous are C ++, C # and Java [2]. These three languages are known for the speed of programs written in them, as well as their common feature - object-orientation Object-oriented programming allows you to view a program as a collection of objects, which in turn are instances of classes. For example, you can bring enemies in any game, if they have a different look and ability, then they will therefore be considered different objects, but objects of the same class of Enemies. That is, object-oriented programming allows you to break any problem into its component parts in the form of objects. Each object has its own data and code.

Another equally interesting area of programming is computer software development. For example, some drivers through which the operating system gains access to some parts of the hardware require constant updates and edits, most of the drivers are written in C++ [1]. But this is not the only language in which you can work with systems. Python is one of the most popular languages today. It allows you to create high performance software.

The last IT trend is SQL, which allows you to manage databases, make queries from which you can get the necessary information. A person who understands well and knows how to manage huge data streams is called a data scientist [4].

As a final matter, it may be noted that the IT industry is constantly developing. Some languages are losing their relevance and their places are being taken by newer and more modern languages. Choosing a programming language is very important for a beginner because it is important to understand if it is interesting and potential according to his initial skills. Any IT profession is highly paid and more and more people want to be in this field, therefore, the question of choosing a field of activity is still relevant [5].

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