

FEATURES OF PROGRAMMING LANGUAGES AND THEIR MAIN APPLICATION

Today, one of the leading professions is programming. It is used in almost all spheres of human activity. In order to program something you need to know the sequence of commands. These commands are combined into a programming language. More than 2,500 different languages have already been created. They can be used for a single industry or to combine several.

JavaScript is the most widely used programming language. It allows you to make a Web page interactive, that is, responsive to user actions. A sequence of instructions (called a program or script) is executed by an interpreter built into a regular Web browser. In other words, the program code is embedded in the HTML document and executed on the client side. You do not need to reload the Web page to run the program, all programs run in response to any event.

JavaScript is used to write web page scripts to make them interactive; to create one-page and progressive web applications (React, AngularJS, Vue.js); for server-side programming (Node.js (Express.js)); in stationary applications (Electron, NW.js); mobile applications (React Native, Cordova); inside PDF documents, etc.

C # is a modern object-oriented programming language. It allows developers to create many types of secure and reliable programs that require the NET ecosystem. C # belongs to the well-known family of C languages, and will seem familiar to anyone who has worked with C, C ++, Java or JavaScript.

It took the best from the programming language C (its high performance), C ++ (object-oriented structure), Java (high security and garbage collection). In C #, you can create a dynamic page, an XML service, a database access component, a Windows desktop application, and a client application or component. The C # programming language is not only suitable for writing network and web applications. It offers tools for developing any type of component for Windows platforms.

The C # programming language was originally designed to work with NET, has simple syntax, more standard libraries, and a smart development environment (IDE). It can be used to develop websites (ASP.NET), client and web applications, cross-platform mobile applications and games in Unity 3D and CryEngine.

C ++ - compiled strictly typed general purpose programming language. It supports different programming paradigms: procedural, generalized, functional; most attention is paid to the support of object-oriented programming. The purpose of creating C ++ was to complement the C language with convenient capabilities for large-

scale software development, while maintaining the flexibility, speed and portability of C. However, the creators of C ++ sought to maintain compatibility with C: the syntax of the former is based on the latter will also work as C ++. Initially, the new language was called "C with classes", but then the name was changed to C ++ - this was to emphasize both its origin from C and its superiority over the latter.

C ++ is widely used for software development, being one of the most popular programming languages. Its scope includes the creation of operating systems, various applications, device drivers, applications for embedded systems, high-performance servers, and games. There are many implementations of C ++, both free and commercial and for different platforms. For example, on the x86 platform it is GCC, Visual C ++, Intel C ++ Compiler, Embarcadero (Borland) C ++ Builder and others. C ++ has had a huge impact on other programming languages, especially Java and C +.

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CLOCK OPERATION OF THE BASIC COMPUTER PROCESSOR BY THE EXAMPLE OF ADD INSTRUCTION

Memory

Table1 1 – Cells and content

№ cells	Content of cell (data and commands)
20	53
21	106
22	0
23	CLA
24	ADD 20
25	ADD 21
26	MOV 22
27	HLT

The program is recorded into computer memory starting from cell 23 (Table1.), and numerical data from cell 20. Cell number 22 is allocated to record the amount. To execute the program, set number 23 to the command counter and start the computer. The program will then begin by reading the contents of cell 23. The CLA command will set the battery to zero. When this command is executed, the contents