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Abstract: Computer programming is the act of issuing various commands to a computer's microprocessor, telling it when, where, what to change, and what to input or output. In this article, what programming languages are there, the most common programming languages and their differences.

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Also, let's talk about ways to learn programming. There are many programming languages in the computer world, and the number of people interested in programming is increasing. Programs that do the same type of work can be written in Basic, Pascal, Ci, and other languages. Pascal, Fortran, and Cobol are universal languages, while Ci and Assembler are close to machine language and are low- or intermediate-level languages. The closer an algorithmic language is to human languages, the more it is called a high-level language. And machine language is the lowest level language. A machine language consists of these numbers, for example: 010110100010101 Programming languages are divided into 2 large groups, Low Level and High Level Programming Language. Low-level programming languages are more complex, they are used in very specialized fields, and their experts are also very few. Because lower programming languages (for example: assembler) may often be needed when working with microprocessors. A high-level programming language is commonly used widely for various programming tasks. EHM (Electronic Computing Machine) is now included in the creation of the program, only in machine languages, that is, in the codes of operations that EHM should perform using numbers. In this case, there were 2-digit, 6-digit, and 8-digit number systems as an understandable counting system for the machine. The program is entered using numbers in this number system. In high-level programming, marked-code languages are more machine-friendly (orientated) than machine languages. The basic principles of symbol-coded languages are that machine code is defined by symbols, and automatic memory allocation and error detection are included. The language adapted to such a machine was called the ASSEMBLER language. Programming is usually done using high-level programming languages (Delphi, Java, C++, Python). Because the semantics of these programming languages are

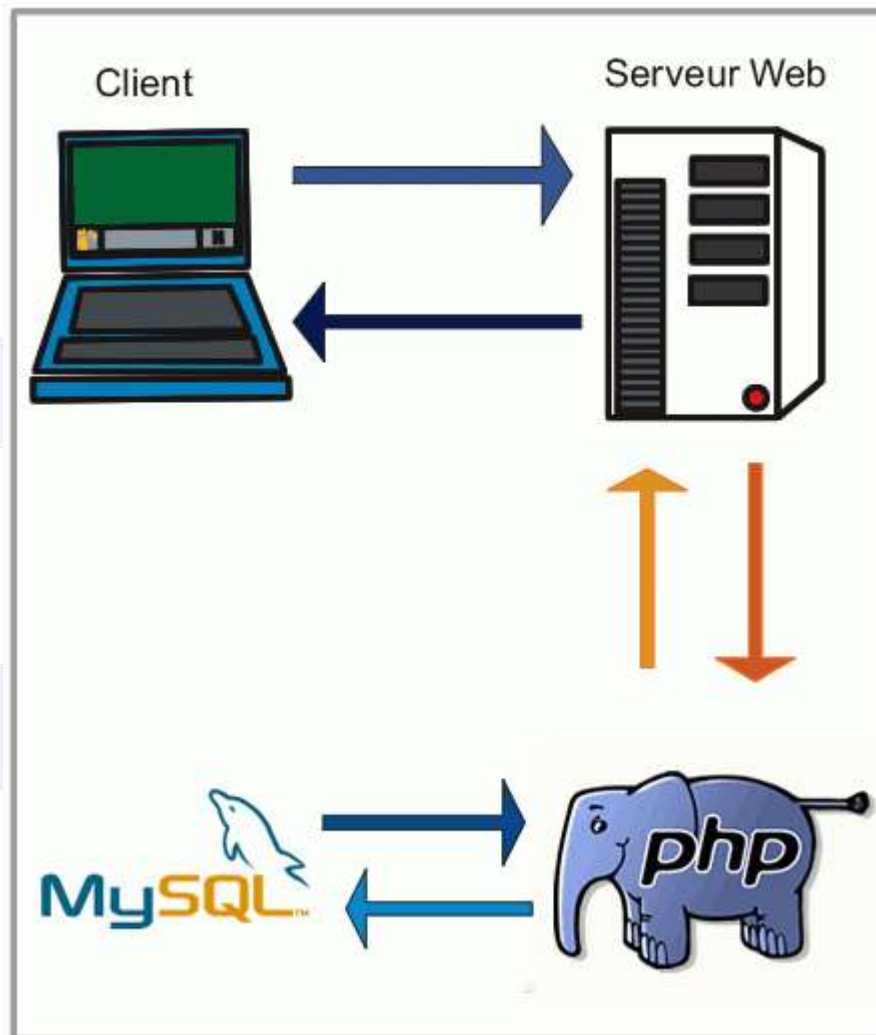
close to human language, the process of creating a program is much easier. Commonly used programming languages. All the languages we know and use today belong to this group. They are written in human "understandable" language. Those who speak English well can understand the program code without difficulty. This group includes languages such as Fortran, Algol, C, Pascal, Cobol, etc. (many of which are practically not used now). It can be used from the earliest languages to modern languages. However, such programs are not created in languages that work through current web technology (PHP, ASP.NET, JSP). Because for such programs to work, another application must be running. Currently, applications are mainly written in languages such as Visual C++, C#, Borland Delphi, Borland C++, Java, Python. Many people in Uzbekistan use Delphi. The main reason for this is simplicity, a large number of components, an easy-to-understand interface, etc. It is easy for a person who has worked in Delphi for the first time to create a program. However, in Windows, the basic functionality of the program is known much later (due to the large number of components and API functions are not shown in the program). On the other hand, Delphi(Pascal) is quite lame when it comes to saving RAM. Variables and arrays that are not used in exchange for pre-declaration of variables are included in it. The most common programming language (in Windows OS) is Microsoft Visual C++. Most programs are currently written in this language. In general, C-like languages are at the forefront of programming today. Almost all modern languages are based on C. In addition, LUA script or JavaScript languages are also widely used in creating various computer games or preparing small programs. We will tell you about some of the programming languages that are widely used in desktop programming today: Delphi (pronounced дельфи) is one of the programming languages. Produced by Borland. The Delphi programming language is used and is already included in the Borland Delphi package. In addition, it received the same name that has been used since 2003. Object Pascal is an object-oriented programming language derived from Pascal with several extensions and additions. Initially, this programming environment was designed only for the Microsoft Windows operating system, and was later adapted for GNU/Linux and Kylix systems, but production was discontinued after the release of Kylix 3 in 2002, and soon after Microsoft.NET support has been announced. The programming language of the Lazarus project (Free Pascal) provides an opportunity to create programs for GNU/Linux, Mac OS X and Windows CE platforms in the Delphi programming environment. Visual Basic (pronounced: "Vijual Basic") is a programming language and programming environment from Microsoft Corporation. It has taken many concepts from BASIC, and programs with a fast graphical interface provide progress. The last version 6.0 was released in 1998. Microsoft's

successor, Visual Basic .NET, appeared in 2002. Java programming language is one of the best programming languages in which you can create enterprise-level products (programs). This programming language is based on the Oak programming language. The Oak programming language was launched by Sun Microsystems in the early 90s with the aim of creating a new generation of smart devices that work independently of the platform (Operating System). To achieve this, Sun employees planned to use C++, but for some reason abandoned this idea. Oak was unsuccessful, and in 1995 Sun changed its name to Java, and some changes to make it serve the development of the WWW. they did Java is an Object Oriented Programming (OOP-object oriented programming) language and is very similar to C++. The Java programming language has been simplified by removing the most error-prone parts. Java code files (ending with *.java) are converted to bytecode after compilation, and this bytecode is read by the interpreter. C++ (pronounced: si plus plus) is a multi-purpose programming language. It was developed by Bjarne Stroustrup at Bell Labs in 1979 to expand the capabilities of the C programming language and introduce OOP (object oriented programming). Originally called "C with Classes", it was changed to the current name C++ in 1983. C++ can compile programs written in C, but the C compiler does not have this feature. It is used in the development of games, applications for daily use, etc. The table below provides information about programming languages. C++ can compile programs written in C, but the C compiler does not have this feature. The C++ language is used in the production of components related to operating systems, client-server programs, EHM games, programs used in daily needs, and programs used for various purposes. The table below provides information about programming languages. C++ can compile programs written in C, but the C compiler does not have this feature. The C++ language is used in the production of components related to operating systems, client-server programs, EHM games, programs used in daily needs, and programs used for various purposes. The table below provides information about programming languages.

Til	Yaratilgan yili	Mualliflar	Tashkilot, firma
Ada	1979-80	Jean Ichbian	Cii-Honeywell (Fransiya)
Algol	1960		International Committee
ARL	1961-1962	Kenneth Iverson, Adin Falkoff	IBM
DELPHI	1995		Borland
VASIS, Beysik	1964-1965	JohnKemeny, Thomas Kurtz	Dartmouth Colleje
C	1972-1973	Dennis Ritchie	Bell Laboratories
C++	1980	Bjarne Strostrup	Bell Laboratories
Kobol	1959-1961	Grace Murray Hopper	
Fort	1971	Charles H.Moore	
FORTRAN	1950-1958	John Backus	IBM
HTML	1989	Tim Berners-Li	CERN, Jeneva
LISP, LISP	1956-1960	John MCCarthy	
LOGO	1968-70	Seymour Papert	Massachusetts Institute of Techn.
Pascal	1967-1971	Niklaus Wirth	Federal Institute of Technology (SHveysariya)
PL1	<u>1964-1966</u>		
PROLOG	1978	Alan Kalmeroe	
SIMULA	1967	Ole-Yoxan Dal, Kristen Nigaard	Norvegiya XM
Java	1995	Djeyms Gosling	Sun Microsystems

Internet. Web Server. Web programming tools (languages) It is known that an additional program called a compiler is needed to explain programs written in high-level programming languages to the computer. A similar process occurs in web programming. Browsers, which you use to view sites on the Internet, are compilers of some web programming languages. In web programming, there are other languages that the browser cannot translate to the computer, but such languages are the basis of the website. A set of programs (compilers or interpreters) similar to a Web server is needed to make such languages understandable by the browser. Such programs are located on the servers where the site is located, when you send a request to it (when you click on a desired link, when you open the site for the first

time, etc.), the Web server programs on the server where the site is located translate the parts of the site written in languages that the browser does not understand to your browser. . Thus, the client - i.e. the translator that interprets the codes of the web site on your side to your computer - is the Browser, and the translator that translates the parts of the web site on the server side that your browser does not understand and sends to it is the Web Server. Below is the web server



Here, the client is your browser and the web programming languages it understands (HTML, CSS, Java Script), and the server side is Apache -> Web server, PHP -> interpreter for the PHP language and working with the database. engine (it can be MYSQL, Oracle, etc.) There may also be other languages on the server side. So, when you enter the name of the desired site from the browser, this request goes from the DNS server to the desired server according to the IP corresponding to the site. will look for the index file in the folder corresponding to your browser. Based on the links in it, it loads the necessary files, looks at the extension of these files, if the extension is .html, it is the same, otherwise, for example, if it is .php, PHP

translates it into a language that the browser understands through the interpreter on the server (including from the database).

References

1. Jalolov, T. S. (2023). PSIXOLOGIYA YO 'NALISHIDA TAHSIL OLAYOTGAN TALABALARGA SPSS YORDAMIDA MATEMATIK USULLARNI O 'RGATISHNING METODIK USULLARI. Educational Research in Universal Sciences, 2(10), 323-326.
2. Jalolov, T. S. (2023). PYTHON INSTRUMENTLARI BILAN KATTA MA'LUMOTLARNI QAYTA ISHLASH. Educational Research in Universal Sciences, 2(10), 320-322.
3. Jalolov, T. S., & Usmonov, A. U. (2021). "AQLLI ISSIQXONA" BOSHQARISH TIZIMINI MODELLASHTIRISH VA TADQIQ QILISH. Экономика и социум, (9 (88)), 74-77.
4. Sadriddinovich, J. T. (2023). Capabilities of SPSS Software in High Volume Data Processing Testing. American Journal of Public Diplomacy and International Studies (2993-2157), 1(9), 82-86.
5. Sadriddinovich, J. T. (2023, November). IDENTIFYING THE POSITIVE EFFECTS OF PSYCHOLOGICAL AND SOCIAL WORK FACTORS BETWEEN INDIVIDUALS AND DEPARTMENTS THROUGH SPSS SOFTWARE. In INTERNATIONAL SCIENTIFIC RESEARCH CONFERENCE (Vol. 2, No. 18, pp. 150-153).
6. Jalolov, T. S. (2023). TEACHING THE BASICS OF PYTHON PROGRAMMING. International Multidisciplinary Journal for Research & Development, 10(11).
7. Jalolov, T. S. (2023). Solving Complex Problems in Python. American Journal of Language, Literacy and Learning in STEM Education (2993-2769), 1(9), 481-484.
8. Jalolov, T. S. (2023). PEDAGOGICAL-PSYCHOLOGICAL FOUNDATIONS OF DATA PROCESSING USING THE SPSS PROGRAM. INNOVATIVE DEVELOPMENTS AND RESEARCH IN EDUCATION, 2(23), 220-223.
9. Tursunbek Sadriddinovich Jalolov. (2023). ARTIFICIAL INTELLIGENCE PYTHON (PYTORCH). Oriental Journal of Academic and Multidisciplinary Research , 1(3), 123-126.
10. Jalolov, T. S. (2023). ADVANTAGES OF DJANGO FEMWORKER. International Multidisciplinary Journal for Research & Development, 10(12).
11. Jalolov, T. S. (2023). ARTIFICIAL INTELLIGENCE PYTHON (PYTORCH). Oriental Journal of Academic and Multidisciplinary Research, 1(3), 123-126.
12. Jalolov, T. S. (2023). SPSS YO KИ IJTIMO IY FANLAR UCHUN STATISTIK PAKET BILAN PSIXOLOGIK MA'LUMOTLARNI QAYTA ISHLASH. Journal of Universal Science Research, 1(12), 207-215.
13. A.K.Кутбеддинов. (2023). УРАН САНОАТИ ТАЪСИРИ ХУДУДЛАРИДАГИ ТАБИЙ СУВЛАР РАДИАЦИОН КЎРСАТКИЧЛАРИНИНГ ЯДРО-ФИЗИК ТАДҚИҚ УСУЛЛАРИ. Journal of Universal Science Research, 1(12), 167-174.
14. Худжакулова, Ф. Р. (2023). ЎЗБЕКИСТОН ТАРАҚҚИЁТИНИНГ ЮКСАЛИШ БОСҚИЧИДА ЁШЛАРНИНГ ТАРБИЯСИДА ОИЛАНING АҲАМИЯТИ. Научный Фокус, 1(7), 266-270.
15. Худжакулова, Ф. Р. (2023). ЁШЛАРНИНГ КИТОБ МУТОЛААСИ ВА КИТОБХОНЛИК МАДАНИЯТИНИ ОШИРИШ ҲОЯВИЙ-МАФКУРАВИЙ ТАЪЛИМ-ТАРБИЯНИНГ САМАРАДОРЛИГИНИ ЮКСАЛТИРИШ ВОСИТАСИ. ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ, 21(5), 173-176.
16. Худжакулова, Ф. Р. (2022). МАКТАБГАЧА ЁШДАГИ БОЛАЛАР ВА БОШЛАҒИЧ ТАЪЛИМ МАКТАБ ЎҚУВЧИЛАРИНИНГ МИЛЛИЙ МАФКУРАВИЙ ОНГИНИ ШАКЛЛАНТИРИШНИНГ ЎЗИГА ХОС ХУСУСИЯТЛАРИ. PEDAGOGS jurnali, 4(1), 267-272.

VOLUME-1, ISSUE-5

17. Khudjakulova, F. R. (2021). Ideological consciousness and its place in the system of social consciousness. *ACADEMICIA: AN INTERNATIONAL MULTIDISCIPLINARY RESEARCH JOURNAL*, 11(1), 904-908.
18. Хужакулова, Ф. Р. (2020). ФОРМИРОВАНИЕ НАЦИОНАЛЬНОГО ИДЕОЛОГИЧЕСКОГО СОЗНАНИЯ УЧЕНИКОВ. In *European research: innovation in science, education and technology* (pp. 80-82).
19. Хужакулова, Ф. Р. (2018). ТЕХНОЛОГИЯ ПОДГОТОВКИ БУДУЩИХ УЧИТЕЛЕЙ К ДУХОВНОМУ И ЭСТЕТИЧЕСКОМУ ОБРАЗОВАНИЮ. In *INTERNATIONAL SCIENTIFIC REVIEW OF THE PROBLEMS OF PEDAGOGY AND PSYCHOLOGY* (pp. 43-45).
20. Хуждакулова, Ф. Р. (2016). СУФИЗМ В КОНТЕКСТЕ ПРОБЛЕМЫ ВОСПИТАНИЯ ДУХОВНО РАЗВИТОЙ ЛИЧНОСТИ. *Современные проблемы социально-гуманитарных наук*, (2), 89-91.
21. Ikromova, S. (2023). INTERPRETATION OF THE PSYCHOLOGICAL SAFETY FACTOR IN RELATION TO DESTRUCTIVE INFORMATION IN ADOLESCENTS. *Modern Science and Research*, 2(9), 390-394.
22. Ikromova, S. (2023). CONCEPT OF IDEOLOGY AND FORMATION OF IDEOLOGICAL IMMUNITY IN YOUTH STUDENTS. *Modern Science and Research*, 2(6), 1223-1226.
23. Ikromova, S. (2023). FORMATION OF IDEOLOGICAL IMMUNITY TO DESTRUCTIVE INFORMATION IN TEENAGERS. *Modern Science and Research*, 2(5), 1009-1014.
24. Ikromova, S. A. (2022). MILLIY VA DINIY QADRIYATLARNING INSON TARBIYASIDAGI O'RNI. *Экономика и социум*, (12-2 (103)), 675-678.
25. Ikromova, S. A. (2023). SHAXS OG 'ISHGAN XULQINING KO 'RINISHLARI VA DESTRUKTIV AXBOROTLARNING KO 'RINISHLARI. *Educational Research in Universal Sciences*, 2(10), 528-532.
26. Akbarovna, I. S. (2023). YOSHLARDA DESTRUKTIV G'OYALARGA QARSHI IMMUNITET HOSIL QILISH OMILLARI.
27. Akbarovna, I. S. (2023). TALABA YOSHLARDA MAFKURA TUSHUNCHASI VA MAFKURAVIY IMMUNITETNI SHAKLLANTIRISH.
28. Akbarovna, I. S. (2023). O'SMIRLARDA DESTRUKTIV AXBOROTLARGA NISBATAN MAFKURAVIY IMMUNITET SHAKLLANTIRISH.
29. Akbarovna, I. S. (2023). DESTRUKTIV AXBOROTLARGA NISBATAN MAFKURAVIY IMMUNITET SHAKLLANTIRISH IJTIMOIIY MUAMMO SIFATIDA. *Barqaror Taraqqiyot va Rivojlanish Tamoyillari*, 1(6), 26-29.
30. Akbarovna, I. S. (2023). MILLIY HARAKATLI O'YINLARNING BOLALAR TARBIYASIDAGI IJTIMOIIY-PSIXOLOGIK XUSUSIYATLARI.
31. Sitara Akbarovna Ikromova. (2023). Formation of Ideological Immunity to Destructive Information. *Intersections of Faith and Culture: American Journal of Religious and Cultural Studies* (2993-2599), 1(9), 50-54.
32. Akbarovna, I. S. (2023). Study of the Formation of Ideological Immunity By Foreign and Russian Researchers. *American Journal of Public Diplomacy and International Studies* (2993-2157), 1(9), 235-239.
33. Akbarovna, I. S. (2023). Adolescence during Destructive Behavior Appearances the Problem Learning Condition. *Intersections of Faith and Culture: American Journal of Religious and Cultural Studies* (2993-2599), 1(9), 105-109.
34. Ikromova, S. A. FACTORS IN THE DEVELOPMENT OF IMMUNITY TO DESTRUCTIVE IDEAS IN ADOLESCENTS.

VOLUME-1, ISSUE-5

35. Akbarovna, I. S. (2023). RESEARCH METHODS OF YOUTH PSYCHOLOGY. *International Multidisciplinary Journal for Research & Development*, 10(12).
36. Ikromova Sitora Akbarovna. (2023). NEUROPHYSIOLOGY BASIS OF HORMONES. *TECHNICAL SCIENCE RESEARCH IN UZBEKISTAN*, 1(5), 68–77.
37. Akbarovna, I. S. (2023). Formation of Ideological Immunity to Destructive Information in Adolescents. *American Journal of Public Diplomacy and International Studies* (2993-2157), 1(10), 119-122.
38. Qazoqov, J. R. (2023). RESEARCHING AUTOMATION OF LIGHTING SYSTEM OF BUILDINGS. *Journal of new century innovations*, 23(2), 35-39.
39. Сайфуллаева, Н. Б. (2020). Важные особенности дидактических игр в процессе обучения математике в начальных школах. In *ИННОВАЦИОННЫЕ МЕТОДЫ ОБУЧЕНИЯ И ВОСПИТАНИЯ* (pp. 60-62).
40. Сайфуллаева, Н. Б., & Мурадова, Я. М. (2020). Пути эффективного использования методов обучения математике в начальных классах. In *EUROPEAN RESEARCH* (pp. 121-123).
41. Сайфуллаева, Н. Б. (2022). Методы определения потребностей обучающихся в процессе использования облачных технологий в образовании. *Universum: технические науки*, (2-1 (95)), 57-59.
42. Сайфуллаева, Н. Б., & Саидова, Г. Э. (2019). Повышение эффективности занятий, используя интерактивные методы в начальном образовании. *Научный журнал*, (6 (40)), 101-102.