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B.N: 914

Topic: Programing languages

Github link : <https://github.com/Mostafahakim15/ECE001-mostafahakim-githup-io>

Github page : <https://mostafahakim15.github.io/ECE001-mostafahakim-githup-io/>

Application brief :

Modern computers are incredibly fast, and getting faster all the time. However, computers also have some significant constraints: they only natively understand a limited set of commands, and must be told exactly what to do. A computer program (also commonly called an application) is a set of instructions that the computer can perform in order to perform some task. The process of creating a program is called programming. Programmers typically create programs by producing source code (commonly shortened to code), which is a list of commands typed into one or more text files.

The collection of physical computer parts that make up a computer and execute programs is called the hardware. When a computer program is loaded into memory and the hardware sequentially executes each instruction, this is called running or executing the program.

Screenshots :

History of programming languages page

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- Types of programming languages like (java,python and c++)
- The importance of programming languages

Since Charles Babbage's invention of the differential engine in 1822, computers have required a means to instruct them to perform a specific task. This means the programming language is known as. Computer languages were composed initially of a series of steps to solve a particular program. These simplified into a series of steps layed in the computer and then executed. Over these languages required advanced features such as logical branching and object orientation. In the last fifty years, the computer languages have come in two stages, the first major languages and the second major languages, which are in use today. In the beginning the difference engine of Charles Babbage could only be made to perform under by changing the gears that performed the calculations. While physical nature was the nature type of a machine language. Eventually, when the US Government awarded the ENIAC in 1942, physical nature was replaced by electronic signals. It followed many of the same principles of Babbage's engine and hence, could only be "programmed" by resetting switches and rewiring the entire system for each new "program" or calculation. This process proved to be very tedious. John Van Neumann was employed at the Institute for Advanced Study in 1945. He developed two important concepts that directly affected computer language programming logic. The first was known as the "architecture of classical systems" (now called von Neumann). This technique indicated that the actual hardware of the computer should be simple and not hard-wired for each program. Instead, the simple hardware should be managed with complex instructions, allowing it to be reprogrammed much quicker. The second concept was also extremely important for programming language development. Van Neumann called it a conditional transfer of control (now called loops). This idea gave rise to the notion of subroutines or small blocks of code that in any order could be jumped to instead of doing a single set of chronologically ordered computer steps. The second part of the idea stated that computer code can be based on the basis of logical statements. A few years after the work of Van Neumann the language Short Code appeared in 1949 (now obsolete). It was the first computer language for electronic devices and required a manual change of the programmer's statements (an 0s and 1s. It was, still, the first step towards today's complex languages. Grace Hopper had written the first compiler in 1951. A compiler is a program that turns the language's statements into 0's and 1's for the computer to understand. This led to faster programming, as the programmer no longer had to do the work by hand. The first of the major languages appeared in FORTRAN form in 1957. To make study for machine FORTRAN TRANSLATING. The language for scientific computation was constructed at IBM. The computers were very simple, and gave the programmer low-level access to the main computer. In 1958 MIT's John McCarthy invented the language LISP Processing for LISP. It was created for research into Artificial Intelligence (AI). The original release of LISP had a unique system, because it was designed for a specialized field, essentially none. Programmers wrote code in pure form, which was usually an intermediary between higher systems created by compilers (such as in C or Java) and lower-level code. In 1958, the Algol language was created by a scientific group consisting. The rest of the rest that has led to such languages as Pascal, C, C++, and Java is the major contribution. It was also the first language with a formal grammar, known as the Backus-Naur Type or BNF (Backus-Naur Form) Science and Technology Encyclopedia. Yet, although Algol implemented some novel concepts, such as recursive function calling, the next language version, Algol 68, became almost too difficult to use. This leads to the adoption of smaller, more compact languages. For example Pascal. Pascal was started by Niklaus Wirth in 1968. Its development was largely out of necessity for a good teaching tool in the beginning language designers had to hope that it would make basic algorithms. Instead, they concentrated on developing good teaching tools such as a debugger and editing programs, and supporting popular early microcomputer machines used in educational institutions. A modern form of programming was being developed during the late 1970s and early 1980s. This became known as OOP or Object Oriented Programming. Objects are pieces of data which the programmer can package and manipulate. Hence, interesting that this approach and oriented C languages known as "C With Classes" which evolved into the first formal C++ language, which was released in 1983. Interactive before, because the technology of the Internet in the early 1990's, Van Neumann decided that a different, portable (can run on many types of machines), language was required for interactive TV. Eventually, that language became Java. The Java project team named their attention to the web in 1994 which became "the big thing" after interactive television failed. The following year Netscape released Java for use in their browser Internet. Programming languages have been under development for years and will continue for many years to come. They get their start with a lot of steps to write a computer in perfect form. These steps eventually found their way into software and began to acquire newer and better features.

A table shows Most Popular Programming Languages

the most popular programming languages



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Programming languages are not very different from spoken languages. Learning any language requires an understanding of the building blocks and the grammar that governs the construction of statements in that language. This page serves as an introduction to programming languages, taking you through the history of programming languages. We will also learn about the various structural properties of all programming languages and directly distinct design features of each programming language. To build a software program, a programming language is a series of commands, instructions, and other system variables. Languages used by programmers to write code are called "high-level languages" which can be compiled into a "low-level language" that is directly recognized by the computer hardware. High-level languages are designed for fast modeling and manipulation. This helps programmers to interactively write source code, use logical words and symbols. For example, in most major programming languages, reserved words like function are used while, if and otherwise. Symbols are <, >, =, and. Usual operators are +, -, *, /, and %. Many high-level languages are similar enough that programmers can easily understand source code written in multiple languages. High-level languages for example include C++, Java, Perl and PHP. Languages such as C++ and Java are called "compiled languages" since the source code must be compiled for running first. Languages such as Perl and PHP are considered "interpreted languages" because the source code can be executed without compiling an interpreter. Generally, compiled languages are used to create software applications, while interpreted languages are used for creating scripts, such as those used to generate content for dynamic websites. Assembly and computer languages are included in the low-level languages. A language of assembly includes a set of simple instructions, which is much harder to read than a language of high level. In some cases, a programmer may decide to code a basic program in a language of assembly to ensure that it works as efficiently as possible. The assembly code can be translated into computer code using an assembler. The machine code, or machine language, contains a series of binary codes which a computer's CPU understands directly. It goes without saying that the computer language is not built to be readable by humans.

image shows Types of programming languages



java

python

C

C++

programming languages

16.028%

10.020%

15.154%

6.037%

Ratings

change

-0.83%

+3.03%

+0.19

-1.41%

Types of programming languages page

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java

Java is a programming language of high quality developed by Sun Microsystems. It was originally designed to create programs for set-top boxes and handheld devices, but was later a runtime option for web applications development. The Java runtime is written in C++ and is a strictly programming language aimed towards network objects. For instance, most Java programs create classes that to identify objects, not methods wrapped in external classes. Java is also known to be more rigorous than C++, which means that the variables and functions must be defined explicitly. This means that Java source code will cause errors, or "exceptions" more easily than other languages, but it also limits other types of errors that may be caused by undefined variables or unassigned types. Unlike Windows executables (EXE files) or Macintosh applications (APP files), Java programs are not run directly by the operating system. Instead, Java programs are interpreted by the Java Virtual Machine, or JVM, which runs on multiple platforms. This means all Java programs are standardized and run on any different platform, including Macintosh, Windows, and Unix computers. For Java applications to execute on a PC, the JVM must be installed "somewhere". Typically the JVM is installed as part of the Java Runtime Environment (JRE), which can be downloaded from the Internet. Sun Microsystems was acquired by Oracle in January 2010 that now Oracle manages and distributes Java.

python

Python is a programming language of high quality built to be easy to read and quick to implement. It is open source, meaning it can be used freely, including for commercial applications. Python can run on Mac, Windows, and Unix systems and has been ported to virtual machines from and .NET as well. Python, like Ruby or Perl, is considered a scripting language and is often used to create Web applications and dynamic Web content. A number of 2D and 3D imaging programs also support it, which allow users to create certain plug-ins and extensions with Python. GNOME, Inkscape, Blender, and Autodesk Maya are examples of applications which support a Python API. Python scripts support CPython files can be generated and executed via. They can also be used as compiled programs (PYC files), which are often used as pre-compiled modules which other Python programs may reference.

c++

C is a programming language of high quality that was established in the mid 1970s. It was initially used to write Unix programs but is now used to write software for almost any platform available. C is simple to read, more versatile (can be used for a wide range of purposes) than most personal languages, and more easy to use (more C++ is pronounced "C plus plus" is a language of programming built from the C language. The C++ system is almost identical to C, but it has lower-level object-oriented features that allow the programmer to create objects within the code. This makes programming easier, more efficient and even more fun for some to use. Because of the power and flexibility of the language, most software programs today are written in C++.

the most popular programming languages

The importance of programming languages page

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Computers profoundly affect modern human life. And a computer program powers the machine. Computer programs are arranged by programming languages, therefore they are the basis of all the conveniences that we find. Programming languages are responsible for all program made, ranging systems, virtual reality, scheduling tools, online games, the User apps, anti-virus and so on. Thus mastering programming languages brings one closer to understanding how all digital technology originates. This article will highlight the importance of programming languages. Programming languages refer to various types of expressions and logical rules of structuring that generate recurring and systematic tasks. They are of great importance because they allow the generation of various systems that serve tasks that satisfy users' needs. There is a wide range of these languages and they are in any case tailored to various types of requirements (this flexibility can be divided into two large groups, structured programming languages and object-oriented languages. Almost everything we can use in computer science is largely due to programming languages. A computer allows high speed calculation operations; however, if it was not for the programs running on it, it is totally unusable. These programs are of different kinds, with perhaps the most important of all, the operating system, the system on which the various applications run. In order to improve the programming languages each one of which has specific features for its implementation. Additionally, every programming language is written at a lower level in form, allowing for a multitude of responses to established needs. In other words, every program is built in a simple flow-simple solutions are followed by more complex solutions, and so on, in line with evolving needs. It's worth noting that every discipline comes from a basic understanding, so does the programming languages' research. As we said, there are two large groups of programming languages, those with structured programming and the object-oriented ones. In the first example, the language consists of a series of instructions and order as well as a set of laws for their application; in the second, the propositional logic plays a central role and all operations may be subjected to logical relations. On the other hand, in the case of an object-oriented programming language, there is an intention to reflect different circumstances of real existence in the language. Thus, reference will be made to objects, classes, inheritance, attributes etc. Programming languages can also be split between interpreted languages and the languages compiled; in the first case the language must be interpreted by another program, while in the second case it must be translated by means of a compiler, resulting in the program a file that is called executable. The knowledge of some programming language can be very important to develop capacities in terms of problem solving and task automation. Certainly this type of knowledge coupled with some basic notions of algorithms can open a whole new panorama of job possibilities. The importance of programming language training is Serbia's schools and colleges. The main purpose of programming languages is to create various types of applications that will assist people in their normal activities. Based on various factors, which programming language should be learned.

Code Source:

```
<tr>
<th>programming languages</th>
<th>Ratings</th>
<th>change</th>
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<tr>
<td>java</td>
<td>16.028%</td>
<td>-0.85%</td>
</tr>
<tr>
<td>python</td>
<td>10.020%</td>
<td>+3.03%</td>
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<td></td>
<td>15.154%</td>
<td>+0.19%</td>
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<tr>
<td>C++</td>
<td>6.057%</td>
<td>-1.41%</td>
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4 <title>programming languages
5 </title>
6 </head>
7 <body>
8 <h1>History of programming languages page
9 </h1>
10 <h2>links</h2>
11 <ul>
12 <li><a href="index.html" main page</a></li>
13 <li><a href="History of programming languages.html">History of programming languages</a></li>
14 <li><a href="Types of programming languages.html">Types of programming languages like (Java,python and c++)</a></li>
15 <li><a href="The importance of programming languages.html">The importance of programming languages</a></li>
16 </ul>
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21 <h2>language shows types of programming languages </h2>
22 
23 </body>
24 </html>
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