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The Top Ten Programming Languages

Computer programming languages allow us to give instructions to a computer in a language. Just as many human-based languages exist, there are an array of computer programming languages that programmers can use to communicate with a computer. The following are the top ten programming languages based on their simplicity to learn and to get a job.

Python

The first programming language is python. Python is fast, easy to use, and easy to deploy programming language that is being widely used to develop scalable web applications. For example, You Tube, Instagram, Pinterest, SurveyMonkey are all built in python. Python provides excellent library support and has a large developer community.



Advantages of python programming language; creating and using classes and objects is easy thanks to OOP (object-oriented project) characteristics, Extensive library support, focuses on code readability, open source with an ever-growing community support, and very easy to

learn. **Dis advantages of python** are not suitable for mobile computing and slower by virtue of being an interpreted programming language.

Java

The second programming languages is Java. Java is widely used for building enterprise scale web applications. Java is known to be extremely stable and so many large enterprises have adapted it. It's also used in android app development. Now a day, any business needs an android application owing to the fact that there are billions of android users today. This opens up a hug opportunity for java developers to given. Moreover, google has created an excellent java based android development framework android studio.



Pros of java, are an abundance of open source libraries, Automatic memory allocation and garbage collection, highly secured system, ideal for distributed computing, and supports multithreading. **Cons** are, absence of templates limits creating high quality data structures, expensive memory management, and slower than natively compiled programming languages.

C++

The third programming language is c++. C++ is like the bread and butter of programming. Because, almost all low level of systems are written in c++. Such as, operating systems, filesystem. It's also widely used by competitive programmers owing to the fact that it is extremely fast and stable.



Pros of c++ programming language: Eases accessing blocked or hidden by other programming languages, faster execution of programs than most programming languages, offers a great degree of portability, and rich function library. **Cons of C++:** complex syntax, doesn't support program namespace, no run time checking, not an easy first choice for learning programming.

JavaScript

The fourth one is JavaScript programming language. Java Script is widely Used to design interactive fronted applications. For instance, when you click on a button which opens up a popup, and the logic is implemented via JavaScript. Now a day, many organizations and particular startups are using NodeJS. Which is a JavaScript based run time environment.

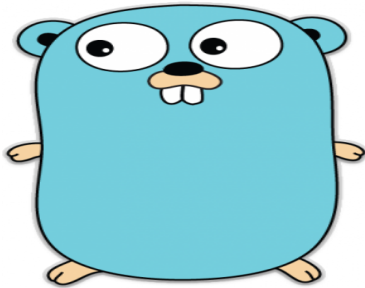


Pros of JavaScript are: Client side is very fast. It runs immediately within the web browser as there is no compilation requirement, it's gives a richer interface to a website, highly versatile, it is a programming language of the web, and plenty of resources and a mammoth

community support. **Cons of JavaScript:** absence of copy or equivalent method, allows only single inheritance, and users have a fear being exploited for a malicious intent.

GO

The fifth one is Go programming language, and it's also known as Golang, and it's a programming language built by google. Go provides excellent support for multithreading, and so, it is being used by a lot of companies that rely heavily on distributed system. Go is widely used in startups in Silicon Valley. However, it is yet to be adopted by Indian companies/startups.



Pros of Go programming language: backed by google, being a statically typed language makes it more secure, clear syntax that makes it easier to learn, ideal for build single page applications, and smart documentation. **Cons of Go:** absence of a virtual machine makes complex programs less efficient, implicit interfaces, and underprivileged library support.

R

The sixth programming language is R. R programming language is one of the most commonly used programming languages for Data Analysis and Machine Learning. R provides an excellent framework and built-in libraries to develop powerful Machine Learning algorithms. R is also used for general statistical computing as well as graphics. R has been well adopted by enterprises.



Pros of R programming language are: ability to run seamlessly on various operations systems, being open source and free grants the ability to make tweaks as per the requirements, comprehensive statistical analysis language, and powerful package ecosystem. **Cons of R language are:** lacks security features, no strict programming guidelines, poor memory management, and quality of some packages are subpar.

Swift

The seventh one is Swift. Swift is the programming language that is used to develop iOS applications. iOS-based devices are becoming increasingly popular. For instance, Apple iPhone has captured a significant market share, and is giving a tough competition to Android



Advantages of Swift are: automatic memory management prevents memory leaks, backed by Apple, easy to add new features, encourages developers to write clean and readable code, English like syntax makes it highly readable, and it's possible to integrate server side swift any technology. **Cons of swift are:** limited community support resources, somewhat unstable due to being a relative new arrival on the programming scene.

PHP

The eighth programming language is PHP. PHP is among the most popular backend programming language. Though, PHP is facing competition from Python and JavaScript, the market still needs a large number of PHP developers.



Advantages of php programming language are: abundance of powerful frameworks, easy to get started for making web pages, lots of automation tools for testing and deploying applications, and supports object oriented and functional programming paradigms. **Disadvantages of php:** are developing websites completely in php is slower as compared to using other options and lacks in terms of security.

C#

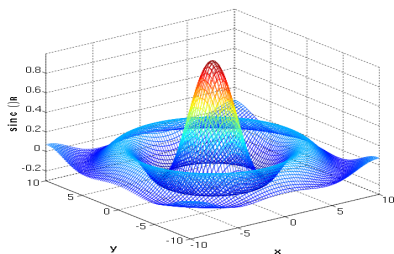
The ninth one is C# programming language. C# is a general-purpose programming language developed by Microsoft. It is widely used for backend programming, building games, building windows mobile phone apps, and lots of other use cases.



Pros of C# language are: ability to work with shared codebases, automatic scalable, component-oriented object-oriented programming language, follows a syntax similar to the C programming language, and quick compilation and execution times. **Cons of C# are:** allows pointers in unsafe blocks, offers less flexibility than C++, required decent effort and time to learn, resolving errors requires serious expertise and knowledge.

MATLAB

The tenth programming language is MATLAB. MATLAB is a statistical analysis tool that is used in various industries for data analysis. It's used widely in the computer vision and image processing industry as well.



Pros of MATLAB programming language are: easy developing scientific simulation, high coding efficiency and productive, ideal for developing scientific research applications, platform independent. **Cons of this language are:** not free to use, not much application beyond the scope of numerical computing, dealing with errors generated during cross compilation requires extensive knowledge and experience, and slower due to being interpreted programming language.

So, as I mentioned above the top ten list programming languages based on their simplicity to learn and to get a job, are python, Java, C++, JavaScript, GO, R, Swift, PHP, and MATLAB computer programming languages.