**Provide a short list with information about the most popular programming languages. How do they differ from C#?**

**Please see the following link where You could find statistics of most popular programming languages :**

<http://langpop.com/>

1. C: <http://en.wikipedia.org/wiki/C_(programming_language)>

(In [computing](http://en.wikipedia.org/wiki/Computing), **C** ([/](http://en.wikipedia.org/wiki/Help:IPA_for_English)[ˈsiː](http://en.wikipedia.org/wiki/Help:IPA_for_English#Key)[/](http://en.wikipedia.org/wiki/Help:IPA_for_English), like [the letter C](http://en.wikipedia.org/wiki/C)) is a general-purpose [programming language](http://en.wikipedia.org/wiki/Programming_language) initially developed by[Dennis Ritchie](http://en.wikipedia.org/wiki/Dennis_Ritchie) between 1969 and 1973 at [AT&T Bell Labs](http://en.wikipedia.org/wiki/AT%26T_Bell_Labs).[[4]](http://en.wikipedia.org/wiki/C_(programming_language)#cite_note-ie-4) Its design provides constructs that map efficiently to typical machine instructions, and therefore it found lasting use in applications that had formerly been coded in [assembly language](http://en.wikipedia.org/wiki/Assembly_language), most notably [system software](http://en.wikipedia.org/wiki/System_software) like the [Unix](http://en.wikipedia.org/wiki/Unix) computer [operating system](http://en.wikipedia.org/wiki/Operating_system).[[5]](http://en.wikipedia.org/wiki/C_(programming_language)#cite_note-AutoTX-1-5)

C is one of the most widely used programming languages of all time,[[6]](http://en.wikipedia.org/wiki/C_(programming_language)#cite_note-AutoTX-2-6)[[7]](http://en.wikipedia.org/wiki/C_(programming_language)#cite_note-AutoTX-3-7) and there are very few [computer architectures](http://en.wikipedia.org/wiki/Computer_architecture) for which a C [compiler](http://en.wikipedia.org/wiki/Compiler) does not exist.

Many later languages have borrowed directly or indirectly from C, including [C#](http://en.wikipedia.org/wiki/C_Sharp_(programming_language)), [D](http://en.wikipedia.org/wiki/D_(programming_language)), [Go](http://en.wikipedia.org/wiki/Go_(programming_language)), [Java](http://en.wikipedia.org/wiki/Java_(programming_language)), [JavaScript](http://en.wikipedia.org/wiki/JavaScript),[Limbo](http://en.wikipedia.org/wiki/Limbo_(programming_language)), [LPC](http://en.wikipedia.org/wiki/LPC_(programming_language)), [Perl](http://en.wikipedia.org/wiki/Perl), [PHP](http://en.wikipedia.org/wiki/PHP), [Python](http://en.wikipedia.org/wiki/Python_(programming_language)), and Unix's [C shell](http://en.wikipedia.org/wiki/C_shell). The most pervasive influence on these languages has been [syntactical](http://en.wikipedia.org/wiki/Syntax_(programming_languages)), and they tend to combine the recognizable expression and statement [syntax of C](http://en.wikipedia.org/wiki/C_syntax) with underlying type systems, data models, and semantics that can be radically different. [C++](http://en.wikipedia.org/wiki/C%2B%2B) started as a preprocessor for C and is currently [nearly a superset of C](http://en.wikipedia.org/wiki/Compatibility_of_C_and_C%2B%2B).[[8]](http://en.wikipedia.org/wiki/C_(programming_language)#cite_note-AutoTX-4-8)

Before there was an official standard for C, many users and implementors relied on an informal specification contained in a book by [Ritchie](http://en.wikipedia.org/wiki/Dennis_Ritchie) and [Brian Kernighan](http://en.wikipedia.org/wiki/Brian_Kernighan); that version is generally referred to as "K&R" C. In 1989 the [American National Standards Institute](http://en.wikipedia.org/wiki/American_National_Standards_Institute) published a standard for C (generally called "[ANSI C](http://en.wikipedia.org/wiki/ANSI_C)" or "C89"). The next year, the same specification was approved by the [International Organization for Standardization](http://en.wikipedia.org/wiki/International_Organization_for_Standardization) as an international standard (generally called "C90"). ISO later released an extension to the [internationalization](http://en.wikipedia.org/wiki/Internationalization_and_localization" \o "Internationalization and localization)support of the standard in 1995, and a revised standard (known as "[C99](http://en.wikipedia.org/wiki/C99)") in 1999. The current version of the standard (now known as "[C11](http://en.wikipedia.org/wiki/C11_(C_standard_revision))") was approved in December of 2011.

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1. C#: <http://en.wikipedia.org/wiki/C_Sharp_(programming_language)>

(*The correct title of this article is****C# (programming language)****. The substitution or omission of the*[*#*](http://en.wikipedia.org/wiki/Number_sign)*sign is because of*[*technical restrictions*](http://en.wikipedia.org/wiki/Wikipedia:Naming_conventions_(technical_restrictions)#Forbidden_characters)*.*

**C#**[[note 1]](http://en.wikipedia.org/wiki/C_Sharp_(programming_language)#cite_note-6) (pronounced *see sharp*) is a [multi-paradigm programming language](http://en.wikipedia.org/wiki/Multi-paradigm_programming_language) encompassing [strong typing](http://en.wikipedia.org/wiki/Strong_typing),[imperative](http://en.wikipedia.org/wiki/Imperative_programming), [declarative](http://en.wikipedia.org/wiki/Declarative_programming), [functional](http://en.wikipedia.org/wiki/Functional_programming), [generic](http://en.wikipedia.org/wiki/Generic_programming), [object-oriented](http://en.wikipedia.org/wiki/Object-oriented_programming) ([class-based](http://en.wikipedia.org/wiki/Class_(computer_science))), and [component-oriented](http://en.wikipedia.org/wiki/Component-based_software_engineering)programming disciplines. It was developed by [Microsoft](http://en.wikipedia.org/wiki/Microsoft) within its [.NET](http://en.wikipedia.org/wiki/.NET_Framework) initiative and later approved as a standard by [Ecma](http://en.wikipedia.org/wiki/Ecma_International" \o "Ecma International) (ECMA-334) and [ISO](http://en.wikipedia.org/wiki/International_Organization_for_Standardization) (ISO/IEC 23270:2006). C# is one of the programming languages designed for the [Common Language Infrastructure](http://en.wikipedia.org/wiki/Common_Language_Infrastructure).

C# is intended to be a simple, modern, general-purpose, object-oriented programming language.[[6]](http://en.wikipedia.org/wiki/C_Sharp_(programming_language)#cite_note-ECMA-334-7) Its development team is led by [Anders Hejlsberg](http://en.wikipedia.org/wiki/Anders_Hejlsberg). The most recent version is C# 5.0, which was released on August 15, 2012.

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1. C++: <http://en.wikipedia.org/wiki/C%2B%2B>

(**C++** (pronounced "see plus plus") is a [statically typed](http://en.wikipedia.org/wiki/Statically_typed), [free-form](http://en.wikipedia.org/wiki/Free-form_language), [multi-paradigm](http://en.wikipedia.org/wiki/Multi-paradigm_programming_language), [compiled](http://en.wikipedia.org/wiki/Compiled_language), general-purpose[programming language](http://en.wikipedia.org/wiki/Programming_language). It is regarded as an intermediate-level language, as it comprises a combination of both [high-level](http://en.wikipedia.org/wiki/High-level_programming_language) and [low-level](http://en.wikipedia.org/wiki/Low-level_programming_language) language features.[[3]](http://en.wikipedia.org/wiki/C%2B%2B#cite_note-shildt-3) Developed by [Bjarne Stroustrup](http://en.wikipedia.org/wiki/Bjarne_Stroustrup" \o "Bjarne Stroustrup) starting in 1979 at [Bell Labs](http://en.wikipedia.org/wiki/Bell_Labs), it adds [object oriented](http://en.wikipedia.org/wiki/Object-oriented_programming) features, such as classes, and other enhancements to the [C programming language](http://en.wikipedia.org/wiki/C_(programming_language)). Originally named **C with Classes**, the language was renamed C++ in 1983,[[4]](http://en.wikipedia.org/wiki/C%2B%2B" \l "cite_note-invention-4) as a pun involving the [increment operator](http://en.wikipedia.org/wiki/Increment_operator).

C++ is one of the most popular programming languages[[5]](http://en.wikipedia.org/wiki/C%2B%2B" \l "cite_note-5)[[6]](http://en.wikipedia.org/wiki/C%2B%2B#cite_note-6) and is implemented on a wide variety of hardware and operating system platforms. As an efficient compiler to native code, its application domains include systems software, [application software](http://en.wikipedia.org/wiki/Application_software), device drivers, embedded software, high-performance server and client applications, and entertainment software such as [video games](http://en.wikipedia.org/wiki/Video_games).[[7]](http://en.wikipedia.org/wiki/C%2B%2B#cite_note-applications-7) Several groups provide both free and proprietary C++ [compiler](http://en.wikipedia.org/wiki/Compiler) software, including the [GNU Project](http://en.wikipedia.org/wiki/GNU_Compiler_Collection), [Microsoft](http://en.wikipedia.org/wiki/Microsoft_Visual_C%2B%2B), [Intel](http://en.wikipedia.org/wiki/Intel_C%2B%2B_Compiler) and[Embarcadero Technologies](http://en.wikipedia.org/wiki/C%2B%2B_Builder). C++ has greatly influenced many other popular programming languages, most notably [C#](http://en.wikipedia.org/wiki/C_Sharp_(programming_language))[[2]](http://en.wikipedia.org/wiki/C%2B%2B#cite_note-influenceSharp-2) and [Java](http://en.wikipedia.org/wiki/Java_(programming_language)). Other successful languages such as [Objective-C](http://en.wikipedia.org/wiki/Objective-C) use a very different [syntax](http://en.wikipedia.org/wiki/Syntax_(programming_languages)) and approach to adding classes to [C](http://en.wikipedia.org/wiki/C_(programming_language)).

C++ is also used for [hardware design](http://en.wikipedia.org/wiki/Hardware_design), where the design is initially described in C++, then analyzed, architecturally constrained, and scheduled to create a [register-transfer level](http://en.wikipedia.org/wiki/Register-transfer_level) [hardware description language](http://en.wikipedia.org/wiki/Hardware_description_language)via [high-level synthesis](http://en.wikipedia.org/wiki/High-level_synthesis).[[8]](http://en.wikipedia.org/wiki/C%2B%2B#cite_note-8)

The language began as enhancements to [C](http://en.wikipedia.org/wiki/C_(programming_language)), first adding [classes](http://en.wikipedia.org/wiki/Class_(computer_science)), then [virtual functions](http://en.wikipedia.org/wiki/Virtual_functions), [operator overloading](http://en.wikipedia.org/wiki/Operator_overloading),[multiple inheritance](http://en.wikipedia.org/wiki/Multiple_inheritance), [templates](http://en.wikipedia.org/wiki/Template_(programming)), and [exception handling](http://en.wikipedia.org/wiki/Exception_handling) among other features. After years of development, the C++ programming language standard was ratified in 1998 as [*ISO/IEC 14882*](http://en.wikipedia.org/wiki/ISO/IEC_14882)*:1998*. The standard was amended by the 2003 technical [corrigendum](http://en.wikipedia.org/wiki/Errata), *ISO/IEC 14882:2003*. The current standard extending C++ with new features was ratified and published by [ISO](http://en.wikipedia.org/wiki/ISO) in September 2011 as [*ISO/IEC 14882*](http://en.wikipedia.org/wiki/ISO/IEC_14882)*:2011* (informally known as [C++11](http://en.wikipedia.org/wiki/C%2B%2B11)).[[9]](http://en.wikipedia.org/wiki/C%2B%2B#cite_note-9)

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1. Java: <http://en.wikipedia.org/wiki/Java_(programming_language)>

(**Java** is a [programming language](http://en.wikipedia.org/wiki/Programming_language) originally developed by [James Gosling](http://en.wikipedia.org/wiki/James_Gosling) at [Sun Microsystems](http://en.wikipedia.org/wiki/Sun_Microsystems) (which has since [merged into Oracle Corporation](http://en.wikipedia.org/wiki/Sun_acquisition_by_Oracle)) and released in 1995 as a core component of Sun Microsystems'[Java platform](http://en.wikipedia.org/wiki/Java_(software_platform)). The language derives much of its [syntax](http://en.wikipedia.org/wiki/Syntax_(programming_languages)) from [C](http://en.wikipedia.org/wiki/C_(programming_language)) and [C++](http://en.wikipedia.org/wiki/C%2B%2B), but it has fewer [low-level](http://en.wikipedia.org/wiki/Low-level_programming_language) facilities than either of them. Java applications are typically [compiled](http://en.wikipedia.org/wiki/Compiler) to [bytecode](http://en.wikipedia.org/wiki/Java_bytecode" \o "Java bytecode) ([class file](http://en.wikipedia.org/wiki/Class_(file_format))) that can run on any [Java virtual machine](http://en.wikipedia.org/wiki/Java_virtual_machine) (JVM) regardless of [computer architecture](http://en.wikipedia.org/wiki/Computer_architecture). Java is a [general-purpose](http://en.wikipedia.org/wiki/General_purpose_programming_language), [concurrent](http://en.wikipedia.org/wiki/Concurrent_computing), [class-based](http://en.wikipedia.org/wiki/Class-based), [object-oriented](http://en.wikipedia.org/wiki/Object-oriented_programming) language that is specifically designed to have as few implementation dependencies as possible. It is intended to let application developers "write once, run anywhere" (WORA), meaning that code that runs on one platform does not need to be recompiled to run on another. Java is as of 2012 one of the most popular programming languages in use, particularly for client-server web applications, with a reported 10 million users.[[10]](http://en.wikipedia.org/wiki/Java_(programming_language)#cite_note-10)[[11]](http://en.wikipedia.org/wiki/Java_(programming_language)#cite_note-11)

The original and [reference implementation](http://en.wikipedia.org/wiki/Reference_implementation_(computing)) Java [compilers](http://en.wikipedia.org/wiki/Compiler), virtual machines, and [class libraries](http://en.wikipedia.org/wiki/Library_(computing)) were developed by Sun from 1991 and first released in 1995. As of May 2007, in compliance with the specifications of the [Java Community Process](http://en.wikipedia.org/wiki/Java_Community_Process), Sun relicensed most of its Java technologies under the [GNU General Public License](http://en.wikipedia.org/wiki/GNU_General_Public_License). Others have also developed alternative implementations of these Sun technologies, such as the [GNU Compiler for Java](http://en.wikipedia.org/wiki/GNU_Compiler_for_Java) and [GNU Classpath](http://en.wikipedia.org/wiki/GNU_Classpath).

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1. JavaScript: <http://en.wikipedia.org/wiki/JavaScript>

(**JavaScript** (sometimes abbreviated **JS**) is a [scripting language](http://en.wikipedia.org/wiki/Scripting_language) commonly implemented as part of a [web browser](http://en.wikipedia.org/wiki/Web_browser) in order to create enhanced [user interfaces](http://en.wikipedia.org/wiki/User_interface) and dynamic [websites](http://en.wikipedia.org/wiki/Website).

JavaScript is a [prototype-based](http://en.wikipedia.org/wiki/Prototype-based) scripting language that is [dynamic](http://en.wikipedia.org/wiki/Dynamic_language), [weakly typed](http://en.wikipedia.org/wiki/Weak_typing) and has [first-class functions](http://en.wikipedia.org/wiki/First-class_functions). It uses [syntax](http://en.wikipedia.org/wiki/JavaScript_syntax) influenced by the language [C](http://en.wikipedia.org/wiki/C_(programming_language)). JavaScript copies many names and naming conventions from [Java](http://en.wikipedia.org/wiki/Java_(programming_language)), but the two languages are otherwise unrelated and have very different semantics. The key design principles within JavaScript are taken from the [Self](http://en.wikipedia.org/wiki/Self_(programming_language)) and [Scheme](http://en.wikipedia.org/wiki/Scheme_(programming_language)) programming languages.[[5]](http://en.wikipedia.org/wiki/JavaScript#cite_note-5)It is a [multi-paradigm](http://en.wikipedia.org/wiki/Multi-paradigm) language, supporting [object-oriented](http://en.wikipedia.org/wiki/Object-oriented_programming),[[6]](http://en.wikipedia.org/wiki/JavaScript#cite_note-ECMA-262-6) [imperative](http://en.wikipedia.org/wiki/Imperative_programming), and [functional](http://en.wikipedia.org/wiki/Functional_programming)[[1]](http://en.wikipedia.org/wiki/JavaScript#cite_note-jsfunc-1)[[7]](http://en.wikipedia.org/wiki/JavaScript#cite_note-7) programming styles.

JavaScript's use in [applications](http://en.wikipedia.org/wiki/Application_software) outside web pages — for example in [PDF](http://en.wikipedia.org/wiki/Portable_Document_Format) documents, [site-specific browsers](http://en.wikipedia.org/wiki/Site-specific_browser), and [desktop widgets](http://en.wikipedia.org/wiki/Desktop_widget)—is also significant. Newer and faster JavaScript [VMs](http://en.wikipedia.org/wiki/Virtual_machine) and frameworks built upon them (notably [Node.js](http://en.wikipedia.org/wiki/Node.js)) have also increased the popularity of JavaScript for server-side web applications.

JavaScript was formalized in the [ECMAScript](http://en.wikipedia.org/wiki/ECMAScript" \o "ECMAScript) language standard and is primarily used in the form of [client-side JavaScript](http://en.wikipedia.org/wiki/Client-side_JavaScript) (as part of a web browser). This enables [programmatic](http://en.wikipedia.org/wiki/Computer_programming) access to computational objects within a host environment.

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1. PHP: <http://en.wikipedia.org/wiki/JavaScript>

(**PHP** is an open source [general-purpose](http://en.wikipedia.org/wiki/General-purpose_programming_language) [server-side scripting](http://en.wikipedia.org/wiki/Server-side_scripting) language originally designed for [Web development](http://en.wikipedia.org/wiki/Web_development) to produce [dynamic Web pages](http://en.wikipedia.org/wiki/Dynamic_Web_page). It is one of the first developed server-side scripting languages to be embedded into an [HTML](http://en.wikipedia.org/wiki/HTML) source document rather than calling an external file to process data. The code is [interpreted](http://en.wikipedia.org/wiki/Interpreter_(computing)) by a Web server with a PHP processor module which generates the resulting Web page. It also has evolved to include a [command-line interface](http://en.wikipedia.org/wiki/Command-line_interface) capability and can be used in [standalone](http://en.wikipedia.org/wiki/Computer_software) [graphical applications](http://en.wikipedia.org/wiki/Graphical_user_interface).[[2]](http://en.wikipedia.org/wiki/PHP#cite_note-2) PHP can be deployed on most Web servers and also as a standalone [shell](http://en.wikipedia.org/wiki/Shell_(computing)) on almost every[operating system](http://en.wikipedia.org/wiki/Operating_system) and [platform](http://en.wikipedia.org/wiki/Computing_platform), free of charge.[[3]](http://en.wikipedia.org/wiki/PHP#cite_note-foundations-3) A competitor to [Microsoft](http://en.wikipedia.org/wiki/Microsoft)'s [Active Server Pages](http://en.wikipedia.org/wiki/Active_Server_Pages) (ASP) server-side script engine[[4]](http://en.wikipedia.org/wiki/PHP#cite_note-4) and similar languages, PHP is installed on more than 20 million Web sites and 1 million [Web servers](http://en.wikipedia.org/wiki/Web_server).[[5]](http://en.wikipedia.org/wiki/PHP#cite_note-5) Software that uses PHP includes [Drupal](http://en.wikipedia.org/wiki/Drupal), [Joomla](http://en.wikipedia.org/wiki/Joomla" \o "Joomla), [MediaWiki](http://en.wikipedia.org/wiki/MediaWiki" \o "MediaWiki), and [Wordpress](http://en.wikipedia.org/wiki/Wordpress" \o "Wordpress).

PHP was originally created by [Rasmus Lerdorf](http://en.wikipedia.org/wiki/Rasmus_Lerdorf" \o "Rasmus Lerdorf) in 1995. The main implementation of PHP is now produced by The PHP Group and serves as the formal reference to the PHP language.[[6]](http://en.wikipedia.org/wiki/PHP#cite_note-about_PHP-6) PHP is [free software](http://en.wikipedia.org/wiki/Free_software)released under the [PHP License](http://en.wikipedia.org/wiki/PHP_License), which is incompatible with the [GNU General Public License](http://en.wikipedia.org/wiki/GNU_General_Public_License) (GPL) due to restrictions on the usage of the term *PHP*.[[7]](http://en.wikipedia.org/wiki/PHP#cite_note-7)

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1. SQL: <http://en.wikipedia.org/wiki/SQL>

( is a special-purpose [programming language](http://en.wikipedia.org/wiki/Programming_language) designed for managing data in [relational database management systems](http://en.wikipedia.org/wiki/Relational_database_management_system) (RDBMS).

Originally based upon [relational algebra](http://en.wikipedia.org/wiki/Relational_algebra) and [tuple relational calculus](http://en.wikipedia.org/wiki/Tuple_relational_calculus), its scope includes data insert, query,[update and delete](http://en.wikipedia.org/wiki/Data_Manipulation_Language), [schema](http://en.wikipedia.org/wiki/Database_schema) creation and modification, and data access control.

SQL was one of the first commercial languages for [Edgar F. Codd](http://en.wikipedia.org/wiki/Edgar_F._Codd)'s [relational model](http://en.wikipedia.org/wiki/Relational_model), as described in his influential 1970 paper, "A Relational Model of Data for Large Shared Data Banks".[[4]](http://en.wikipedia.org/wiki/SQL#cite_note-codd-relational-model-4) Despite not adhering to [the relational model as described by Codd](http://en.wikipedia.org/wiki/Codd%27s_12_rules), it became the most widely used database language.[[5]](http://en.wikipedia.org/wiki/SQL#cite_note-SQL-Fundamentals-5)[[6]](http://en.wikipedia.org/wiki/SQL#cite_note-IBM-sql-6)Although SQL is often described as, and to a great extent is, a [declarative language](http://en.wikipedia.org/wiki/Declarative_programming), it also includes[procedural](http://en.wikipedia.org/wiki/Procedural_programming) elements. SQL became a [standard](http://en.wikipedia.org/wiki/Technical_standard) of the [American National Standards Institute](http://en.wikipedia.org/wiki/American_National_Standards_Institute) (ANSI) in 1986, and of the [International Organization for Standards](http://en.wikipedia.org/wiki/International_Organization_for_Standards) (ISO) in 1987. Since then, the standard has been enhanced several times with added features. However, issues of SQL code portability between major RDBMS products still exist due to lack of full compliance with, or different interpretations of, the standard. Among the reasons mentioned are the large size and incomplete specification of the standard, as well as[vendor lock-in](http://en.wikipedia.org/wiki/Vendor_lock-in).

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