

1. EVOLUTION OF PROGRAMMING LANGUAGES

Programming Language is indeed the fundamental unit of today's tech world. It is considered as the set of commands and instructions that we give to the machines to perform a particular task. For example, if you give some set of instructions to add two numbers then the machine will do it for you and tell you the correct answer accordingly.

In the computer world, we have about 500+ programming languages with having their own syntax and features. And if you type who's the father of the computer, then the search engine will show you the result as to Charles Babbage but the father of the computer didn't write the first code. It was Ada Lovelace who has written the first-ever computer programming language and the year was 1883.

1883: The Journey starts from here...!!

- In the early days, Charles Babbage had made the device, but he was confused about how to give instructions to the machine, and then Ada Lovelace wrote the instructions for the analytical engine.
- The device was made by Charles Babbage and the code was written by Ada Lovelace for computing Bernoulli's number.
- First time in history that the capability of computer devices was judged.

1949: Assembly Language

- It is a type of low-level language.
- It mainly consists of instructions (kind of symbols) that only machines could understand.
- In today's time also assembly language is used in real-time programs such as simulation flight navigation systems and medical equipment eg – Fly-by-wire (FBW) systems.
- It is also used to create computer viruses.

1952: Autocode

- Developed by Alick Glennie.
- The first compiled computer programming language.
- COBOL and FORTRAN are the languages referred to as Autocode.

1957: FORTRAN

- Developers are John Backus and IBM.
- It was designed for numeric computation and scientific computing.

- Software for NASA probes voyager-1 (space probe) and voyager-2 (space probe) was originally written in FORTRAN 5.

1958: ALGOL

- ALGOL stands for **ALGO**rithmic **L**anguage.
- The initial phase of the most popular programming languages of C, C++, and JAVA.
- It was also the first language implementing the nested function and has a simple syntax than FORTRAN.
- The first programming language to have a code block like “begin” that indicates that your program has started and “end” means you have ended your code.

1959: COBOL

- It stands for **CO**mmun **B**usiness-**O**riented **L**anguage.
- In 1997, 80% of the world’s business ran on Cobol.
- The US internal revenue service scrambled its path to COBOL-based IMF (individual master file) in order to pay the tens of millions of payments mandated by the coronavirus aid, relief, and economic security.

1964: BASIC

- It stands for beginners All-purpose symbolic instruction code.
- In 1991 Microsoft released Visual Basic, an updated version of Basic
- The first microcomputer version of Basic was co-written by Bill Gates, Paul Allen, and Monte Davidoff for their newly-formed company, Microsoft.

1972: C

- It is a general-purpose, procedural programming language and the most popular programming language till now.
- All the code that was previously written in assembly language gets replaced by the C language like operating system, kernel, and many other applications.
- It can be used in implementing an operating system, embedded system, and also on the website using the Common Gateway Interface (CGI).
- C is the mother of almost all higher-level programming languages like C#, D, Go, Java, JavaScript, Limbo, LPC, Perl, PHP, Python, and Unix’s C shell.

Some other programming languages that are popular among programmers are listed below.

YEAR OF RELEASE	PROGRAMMING LANGUAGES	FACTS
1972	SQL	SQL was developed at IBM by Donald D. Chamberlin and Raymond F. Boyce. The earlier name was SEQUEL (Structured English Query Language)
1978	MATLAB	It stands for MATrix LABoratory. It is used for matrix manipulation, implementation of an algorithm, and creation of a user interface.
1983	Objective-C, C++	C++ is the fastest high-level programming language. Earlier, Apple Inc uses Objective-C to make applications.
1990	Haskell	It is a purely functional programming language.
1991	Python	The language is very easy to understand. Famous language among data scientists and analysts.
1995	JAVA, PHP, JavaScript	JAVA is everywhere. JAVA is the platform-independent language. PHP is a scripting language mainly used in web programming for connecting databases. JavaScript enables interactive web pages. JS is the most popular programming language. JS is

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		famous for building a web application. It makes our page interactive.
2000	C#	C#(C-sharp) is mainly used for making games. Unity engine uses C# for making amazing games for all platforms
2009	GO	GO language is developed in Google by Robert Griesemer, Rob Pike, and Ken Thompson.
2011	Kotlin	Kotlin is developed by JetBrains. It is used for making an android application.
2014	Swift	Swift language is developed by Apple Inc. It is a general-purpose programming language.