The Evolution of Programming Languages

Year	Language	What does the name mean?	Notes
1949	Assembly Language	-	Assembly language was introduced as a more human-readable abstraction of machine code.
1952	Autocode	**Auto**matic **Cod**ing	Autocode introduced the idea of using mnemonic symbols and simpler commands to generate machine code.
1957	FORTRAN	**FOR**mula **TRAN**slation	FORTRAN introduced the concept of a compiler, which could translate high-level code into efficient machine code.
1958	ALGOL	**Algo**rithmic **L**anguage	ALGOL introduced structured programming, influencing languages like Pascal, C, and Java.
1958	LISP	**LIS**t **P**rocessing	Designed for symbolic data and recursion, it advanced AI and introduced garbage collection, influencing languages like Python and JavaScript.
1959	COBOL	**CO**mmon **B**usiness-**O**riented **L**anguage	COBOL, a high-level business language, was designed for readability and efficient data handling, later adding structured

			features like IF statements and loops.
1964	BASIC	**B**eginner's **A**ll-purpose **S**ymbolic **I**nstruction **C**ode	BASIC's simple syntax made programming accessible to non-programmers, with immediate feedback via time-sharing systems. It adapted to various platforms and evolved into versions like Microsoft BASIC, QBASIC, and Visual Basic.
1970	Pascal	-	Pascal promoted structured programming and modular code reuse. Turbo Pascal by Borland in the 1980s was a commercial success, influencing languages like Modula-2, Ada, and Delphi.
1972	Smalltalk-72, -76, -80	-	Smalltalk introduced object-oriented principles like message passing and tools like browsers and debuggers, now standard in IDEs. It influenced languages like C++, Java, Python, and Ruby, and shaped agile practices and GUIs.
1972	C		C evolved from B (based on BCPL) and was created for the Unix operating

			system. Its rich standard library includes functions for tasks like file handling and math. C is the foundation for modern languages like C++, Java, and Python.
1979	OPS5	**O**fficial **P**roduction **S**ystem, version 5	OPS5 is a high-level language for rule-based systems in AI, evolving from OPS4. It uses the Rete algorithm for efficient pattern matching and inspired tools like CLIPS, Jess, and Drools.
1979	C++	-	C++, renamed from "C with Classes" in 1983, extends C with object-oriented features like classes and inheritance. It introduced reusable components and influenced languages like Java, C#, and Rust.
1987	Perl	**P**ractical **E**xtraction and **R**eport **L**anguage	Perl, known for its versatility and text-processing, gained popularity in the 1990s for web development. It influenced scripting languages like Python, Ruby, and PHP.
1991	Python		ABC, developed in the 1980s at CWI, emphasized simplicity and readability, inspiring Python's design.

			Python adds libraries for tasks like web development, machine learning, and data analysis and runs code line-by-line for easy debugging.
1991	Visual Basic	-	Visual Basic, built for rapid application development (RAD), evolved from BASIC, adding event-driven programming and GUI development to its simple syntax.
1995	Java		Java, created by Sun Microsystems, follows the "Write Once, Run Anywhere" (WORA) philosophy. Influenced by C++, it retains object-oriented principles while simplifying and avoiding complexities like pointer arithmetic and multiple inheritance.
1995	Javascript		JavaScript is a high-level language widely used for web development, enabling dynamic, interactive pages and efficiently handling user interactions like clicks and form submissions.
2000	C#		C#, an object-oriented language by Microsoft, was released in 2002

			with the .NET Framework. Influenced by C++, Java, and Object Pascal, it remains central to Microsoft's development stack and evolves with regular updates.

Due to their limited relevance to the industrial automation market, I did not include languages like MATLAB, Haskell, PHP, PL/I, APL, Objective-C, R, Ruby, Groovy, Go, or Swift.