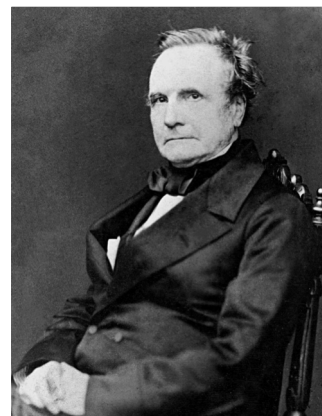


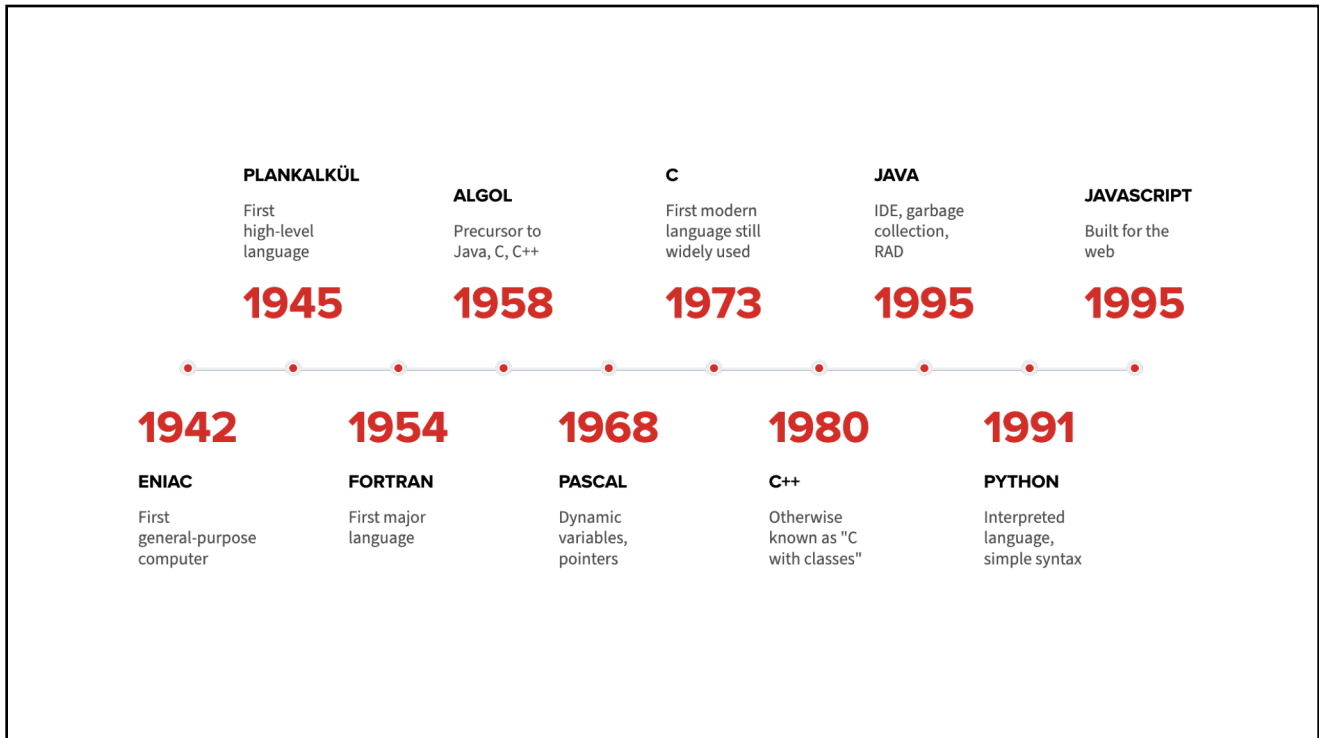
# History of Computer Languages

By Lucas Marcondes and Kaden Sukachevin

## What are Computer Languages

- The documentation of early mechanical computers  
-> modern software development tools
- Charles Babbage, founder of the computer
- Computer languages solve the problem of difficulty






## Von Neumann

*The Shared Program Technique*

- Simple hardware, complex instruction set

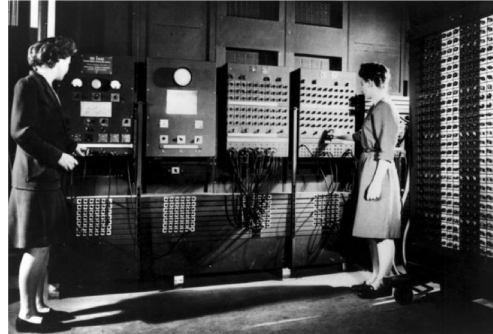
*Conditional Control Transfer*

- Code should jump around. Not fixed to run in order.



## Early developments

- ENIAC
- Plankalkül
- Compilers
- FORTRAN
- COBOL
- LISP
- ALGOL



<https://www.computerhistory.org/revolution/birth-of-the-computer/4/78>

## 1960s-1970s

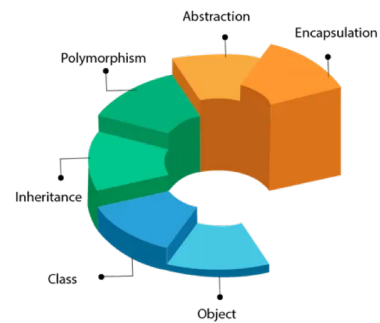
- 1967 – **BCPL** (forerunner to B)
- 1968 – **Logo**
- 1969 – **B** (forerunner to C)
- 1970 – **Pascal**
- 1970 – **Forth**
- 1972 – **C**
- 1972 – **Smalltalk**
- 1972 – **Prolog**
- 1973 – **ML**
- 1975 – **Scheme**
- 1978 – **SQL** (a query language, later extended)

Source: [https://en.wikipedia.org/wiki/History\\_of\\_programming\\_languages](https://en.wikipedia.org/wiki/History_of_programming_languages)

## 1980s

- Decade of consolidation within imperative languages
- Object Oriented Programming
- RISC Movement
- C++, Objective-C

### OOPs (Object-Oriented Programming System)



<https://francescolelli.info/tutorial/object-oriented-programming-a-curved-set-of-resources/>

## The Internet and its Languages

| Internet = new possibilities  
JavaScript, PHP

| Transitioning from imperative languages to  
functional languages

| RAD, IDEs

| Scripting Languages

- 1990 – Haskell
- 1991 – Python
- 1991 – Visual Basic
- 1993 – Lua
- 1993 – R
- 1994 – CLOS (part of ANSI Common Lisp)
- 1995 – Ruby
- 1995 – Ada 95
- 1995 – Java
- 1995 – Delphi (Object Pascal)
- 1995 – JavaScript
- 1995 – PHP
- 1997 – Rebol

Source: [https://en.wikipedia.org/wiki/History\\_of\\_programming\\_languages](https://en.wikipedia.org/wiki/History_of_programming_languages)

## Today

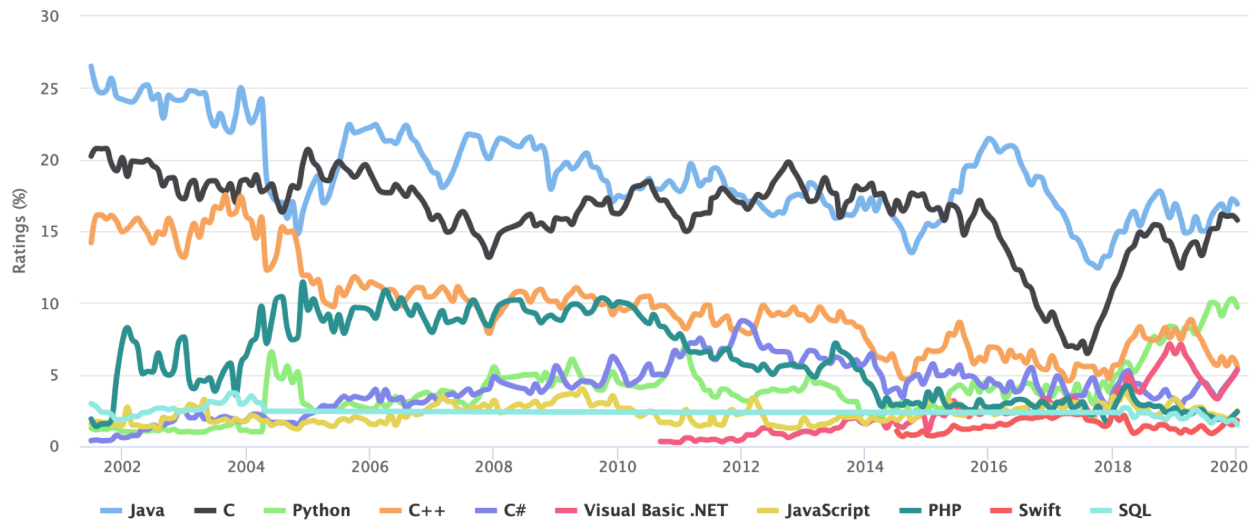
- Mobile applications
  - Android (Java), IOS (Swift)
- Scratch
- Go
- Rust
- Kotlin



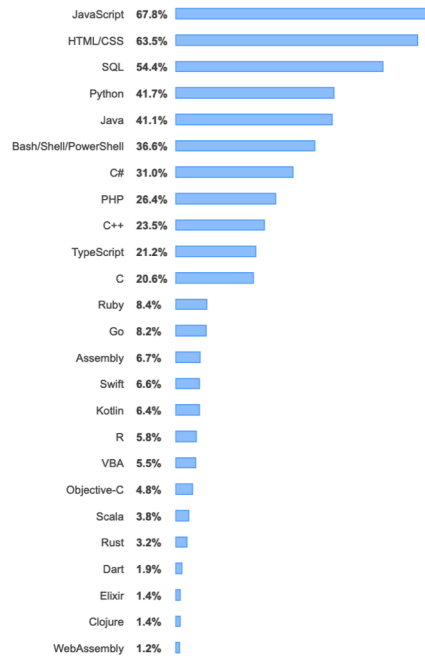
<https://bizibl.com/marketing/article/next-generation-apps>

### TIOBE Programming Community Index

Source: [www.tiobe.com](http://www.tiobe.com)



## Most Popular Programming, Scripting, and Markup Languages



87,354 responses; select all that apply

<https://insights.stackoverflow.com/survey/2019#technology>

## Resources

[https://en.wikipedia.org/wiki/History\\_of\\_programming\\_languages](https://en.wikipedia.org/wiki/History_of_programming_languages)

[https://cs.brown.edu/~adf/programming\\_languages.html](https://cs.brown.edu/~adf/programming_languages.html)

[https://en.wikibooks.org/wiki/Introduction\\_to\\_Software\\_Engineering/Tools/Compiler#History](https://en.wikibooks.org/wiki/Introduction_to_Software_Engineering/Tools/Compiler#History)

<https://insights.stackoverflow.com/survey/2019#technology>