

# The Go Programming Language

Go is a statically typed, compiled high-level programming language designed at Google by Robert Griesemer, Rob Pike, and Ken Thompson. It is syntactically similar to C, but also has memory safety, garbage collection, structural typing, and CSP-style concurrency. It is often referred to as Golang because of its former domain name, golang.org, but its proper name is Go.

There are two major implementations:

1. Google's self-hosting "gc" compiler toolchain, targeting multiple operating systems and WebAssembly.
2. Gofrontend, a frontend to other compilers, with the libgo library. With GCC the combination is gccgo; with LLVM the combination is gollvm. A third-party source-to-source compiler, GopherJS, compiles Go to JavaScript for front-end web development.

Go was designed at Google in 2007 to improve programming productivity in an era of multicore, networked machines and large codebases. The designers wanted to address criticism of other languages in use at Google, but keep their useful characteristics:

- Static typing and run-time efficiency (like C)
- Readability and usability (like Python)
- High-performance networking and multiprocessing

Its designers were primarily motivated by their shared dislike of C++.

Go was publicly announced in November 2009, and version 1.0 was released in March 2012. Go is widely used in production at Google and in many other organizations and open-source projects.

[https://en.wikipedia.org/wiki/Go\\_\(programming\\_language\)](https://en.wikipedia.org/wiki/Go_(programming_language))