



A Beginner's Look at Go

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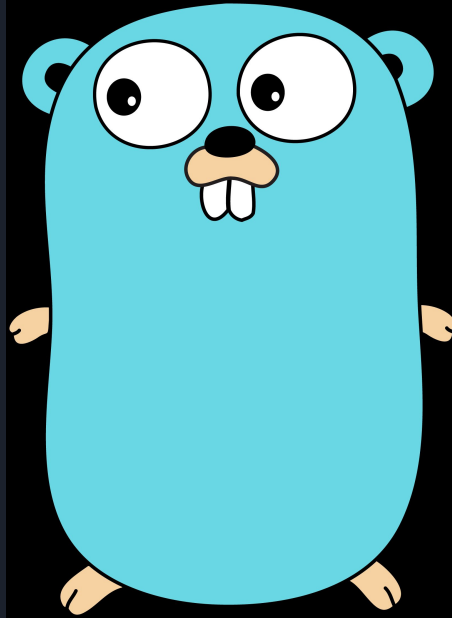
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Recent Statistics of Go

- Stackoverflow Survey (2018)
 - 5th Most Loved Language, after Rust, Kotlin, Python, and TypeScript
 - 3rd Most Wanted Language, after Python and JavaScript
 - 5th Top Paying Technologies, after Erlang, Scala, Ocaml, and Clojure
- JetBrains Survey (2018)
 - Most promising programming language
 - 4th “Mostly learned language in the past year”, after Python, JavaScript, Java
- TIOBE
 - Top 20 in 2018
 - Highest: #10 in July 2017
 - Language of the Year: 2009, 2016

Brief History of Go





Why do we need a new
language?



Features of Go

- Compiles quickly
- No virtual machine or runtime library
- Garbage collection
- Function can return multiple variables
- Simplified concurrent programming
- Built-in testing & benchmarking package
- UTF support



Type System

- Primitive types:
 - Boolean
 - Integer
 - Float
 - string
- struct
- Composite
 - Array
 - Map
 - Slice
- Function Type
- Interface
- Pointer



Code Examples



Controversies

- “Succinct programs” / Idiomatic Go
- No implicit type conversion
- No class/objects
- No inheritance
- No generics. Use interface instead.
- Go is an opinionated language
- Pointers can be hard to understand without experience in C/C++



Resources

- Tools
 - VS Code, Atom, IntelliJ (with Go plug-in), Goland (JetBrains, subscription required)
- Books
 - The Go Programming Language, Go Programming Blueprints
- Experts
 - Rob Pike, Mat Ryer, Dave Cheney, Mark Bates, William Kennedy, and more on Medium and other blogs
- Websites
 - Golang.org, Go By Example, A Tour of Go
- Communities
 - Reddit (/r/golang), Google Group (Golang-Nuts)
- Conferences
 - GopherCon (Denver, CO), Gotham Go (NYC)



There are no stupid questions

Demo Programs

- <https://github.com/yubing24/go-demo>

Contact us:

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Reddit:

- <https://www.reddit.com/r/golang>