

# Get Going with Golang

Beaver Barcamp 17

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# Getting Started

- Why Go?
- Quick technical details
- Download and Install Go
- Hello World
- Concurrency

# Why Go?

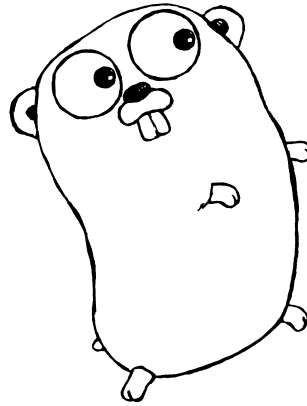
Go, released to the public in 2009, was designed to be simple, fast, and powerful. Go is completely open source and has support on all major platforms (Linux/Mac/Windows/FreeBSD).

Check it out:

[github.com/golang](https://github.com/golang) (<https://github.com/golang>)

Go had a few specific design goals:

- Ease of programming
- Efficient compilation
- Performant execution
- Simple concurrency



## Quick technical details

Go is:

- A compiled language
- Statically typed
- Garbage Collected

Go is not:

- An Object Oriented Programming Language, there is no such thing as a class

# Download and Install Go

Install Docs:

[golang.org/doc/install](https://golang.org/doc/install) (https://golang.org/doc/install)

Downloads Page:

[golang.org/dl/](https://golang.org/dl/) (https://golang.org/dl/)

Debian (Go 1.6)

```
$sudo apt-get install golang
```

Fedora (Go 1.8)

```
$ sudo dnf install golang
```

CentOS (Go 1.6)

```
$ yum install golang
```

# Hello World!

```
package main

import (
    "fmt"
)

func main() {
    fmt.Printf("Hello World!\n")
}
```

[Run](#)

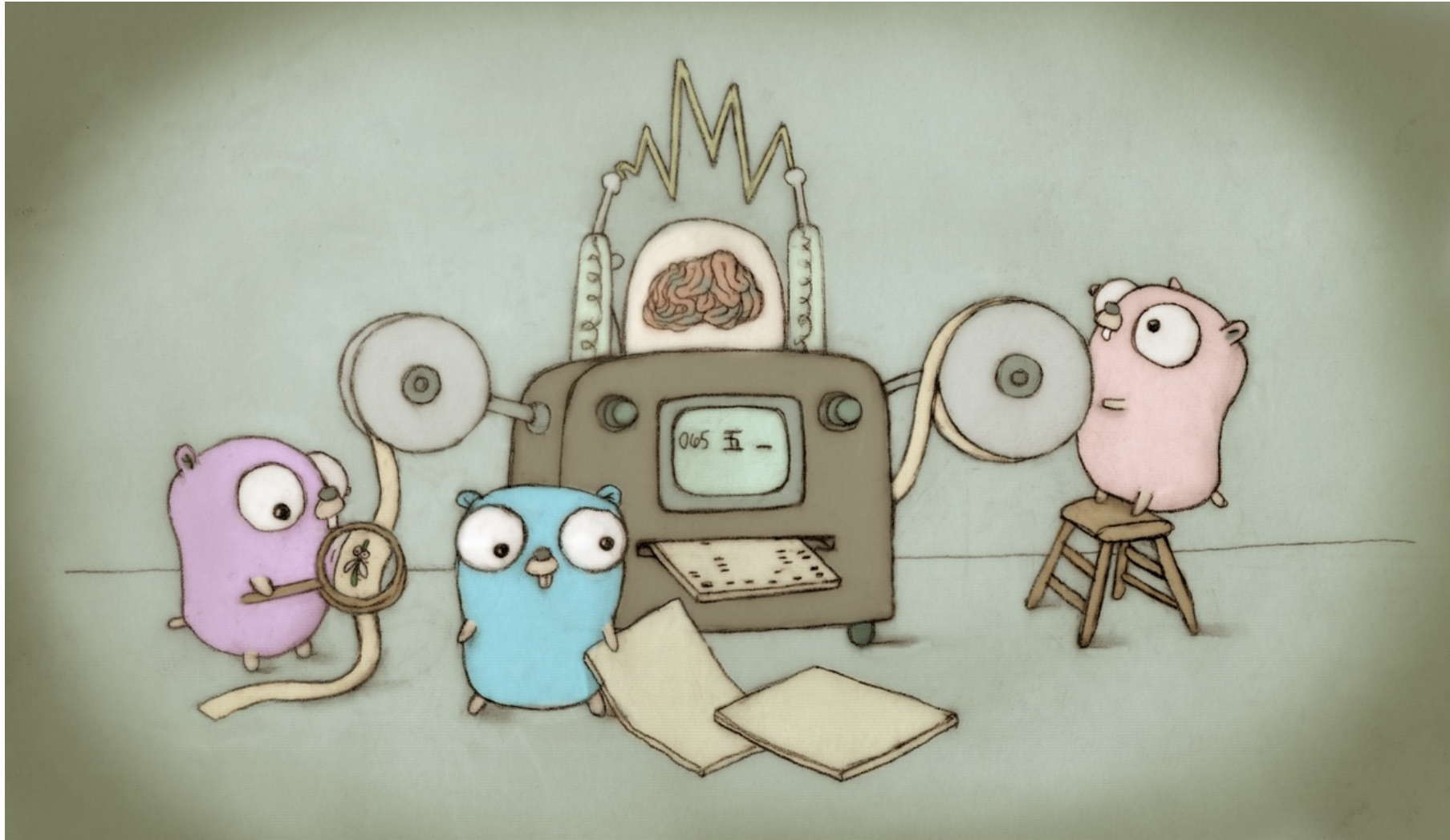
## To build:

```
$ go build
```

## To run:

```
$ ./main
Hello World!
```

# We did it!





# Concurrency

Share memory by communicating, rather than sharing memory to communicate

Finish this slide

# Goroutines

Lightweight Threads, shared address space

# Mutex, Semaphores, and sharing memory

The general method of communicating is through shared memory. This is done by regulating access to critical sections of code using mutex, semaphores, or other locking mechanisms.

# The Go Solution: Channels

Share memory by communicating

```
// Simple integer channel
channel := make(chan int)

go func() {
    for i := 0; i < 10; i++ {
        channel <- i
        time.Sleep(time.Second)
    }
}()

go func() {
    for {
        value := <- channel
        fmt.Println(value)
    }
}()
```

# Thank you

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Tags: [Golang](#), [Hello World](#), [Introduction](#) ([#ZgotmplZ](#))

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