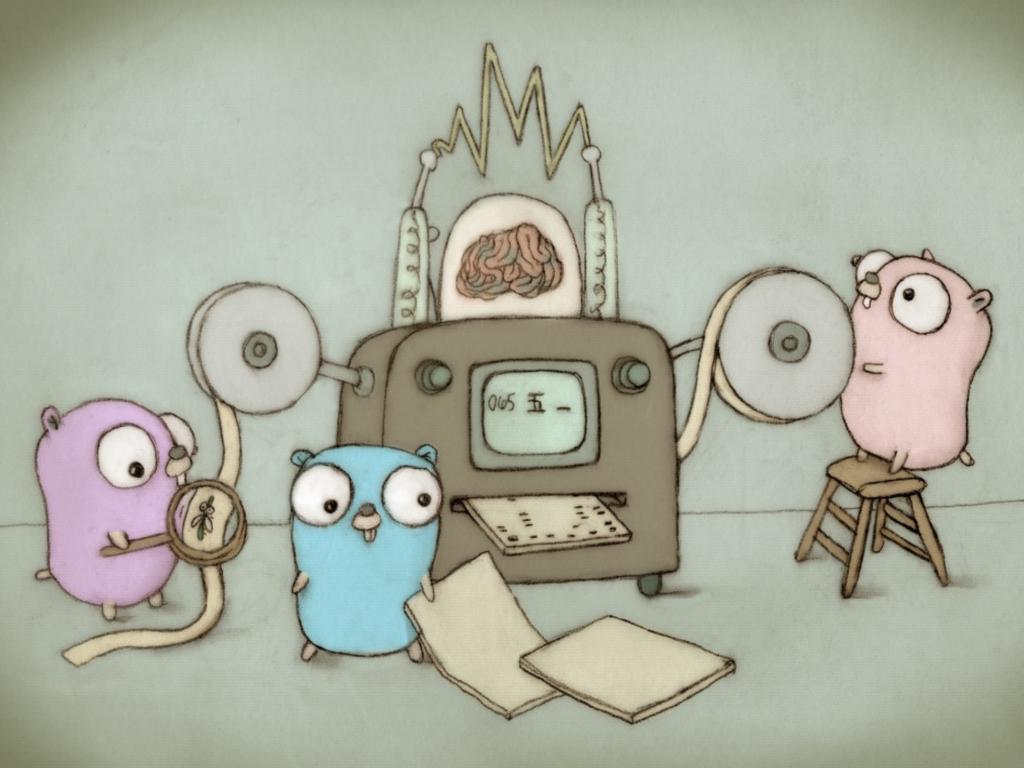
## Get Set GO



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## Used By?

Docker

CoreOS

Kubernetes (Google)

InfluxDB

## GoLang

It's a fast, statically typed, compiled language that feels like a dynamically typed, interpreted language.

## GoLang Features

Open Source

Language Design

Powerful Standard Library

Concurrency

### Concurrency

It is the composition of independently executing units.

It is a way to structure code.

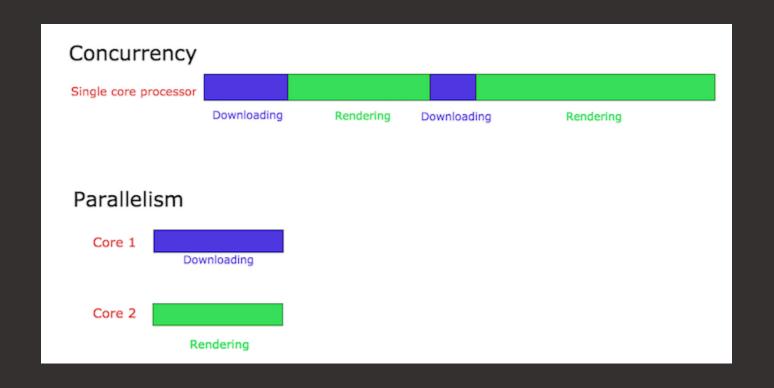
It is not parallelism.

## Concurrency vs Parallelism

Concurrency is about dealing with lots of things at once. Parallelism is about doing lots of things at once.

#### Parallelism

Parallelism will not always result in faster execution times.



# Why we need Concurrency?



We cannot add more and more cache to the processor to increase performance as cache have physical limits: the bigger the cache, the slower it gets.

#### Go Routines

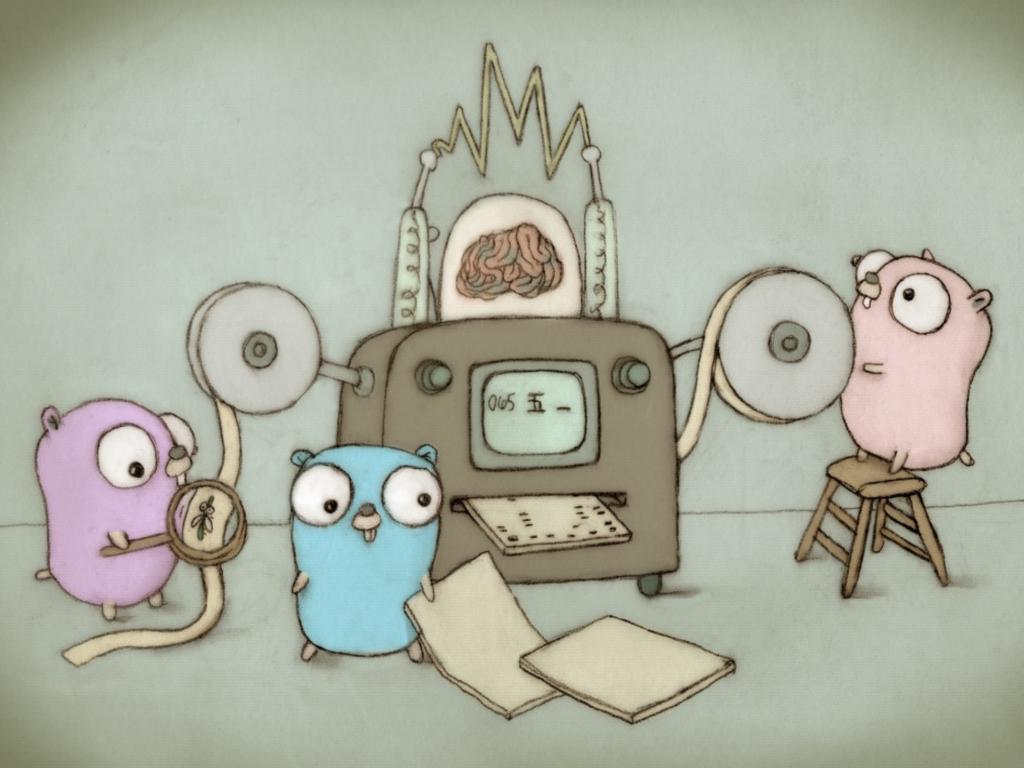
A goroutine is a lightweight thread managed by the Goruntime.

The Goroutines are multiplexed to a fewer number of OS threads.

#### Channels

Channels can be thought of as pipes using which Goroutines communicate.

Channels provides synchronization and avoids race conditions.



## **EE**THANK YOU



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