Concurrent Programming with Go

GOROUTINES

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@vansimke
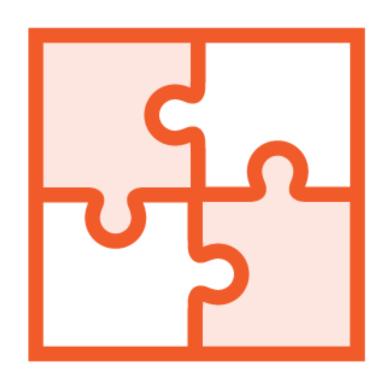
Overview

Course outline

Concurrency and parallelism

Working with goroutines

Goroutines

– Enable concurrent programming

The sync package

– Allow goroutines to coordinate their work

Channels

– Provide a safe way for goroutines to communicate

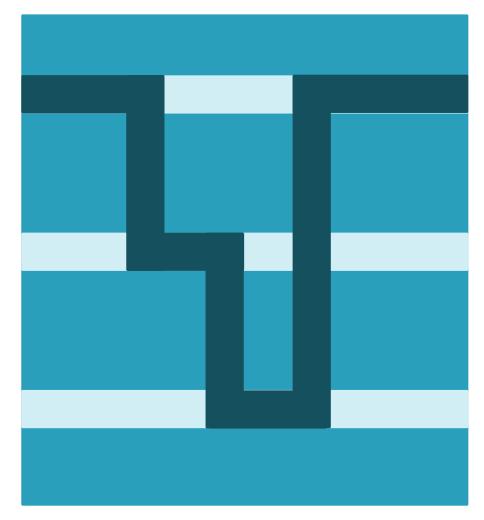# Concurrency and Parallelism

Single task – have a single task
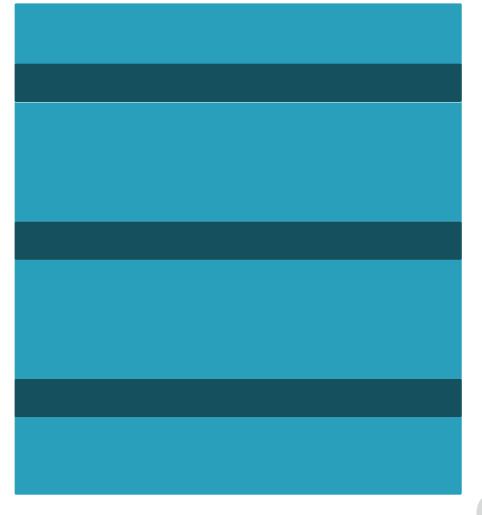
Concurrency – have multiple tasks

Parallelism – execute multiple tasks simultaneously

Concurrency

Parallelism

Threads vs Goroutines

Thread	Goroutine
Have own execution stack	Have own execution stack
Fixed stack space (around 1 MB)	Variable stack space (starts @2 KB)
Managed by OS	Managed by Go runtime

Summary

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