

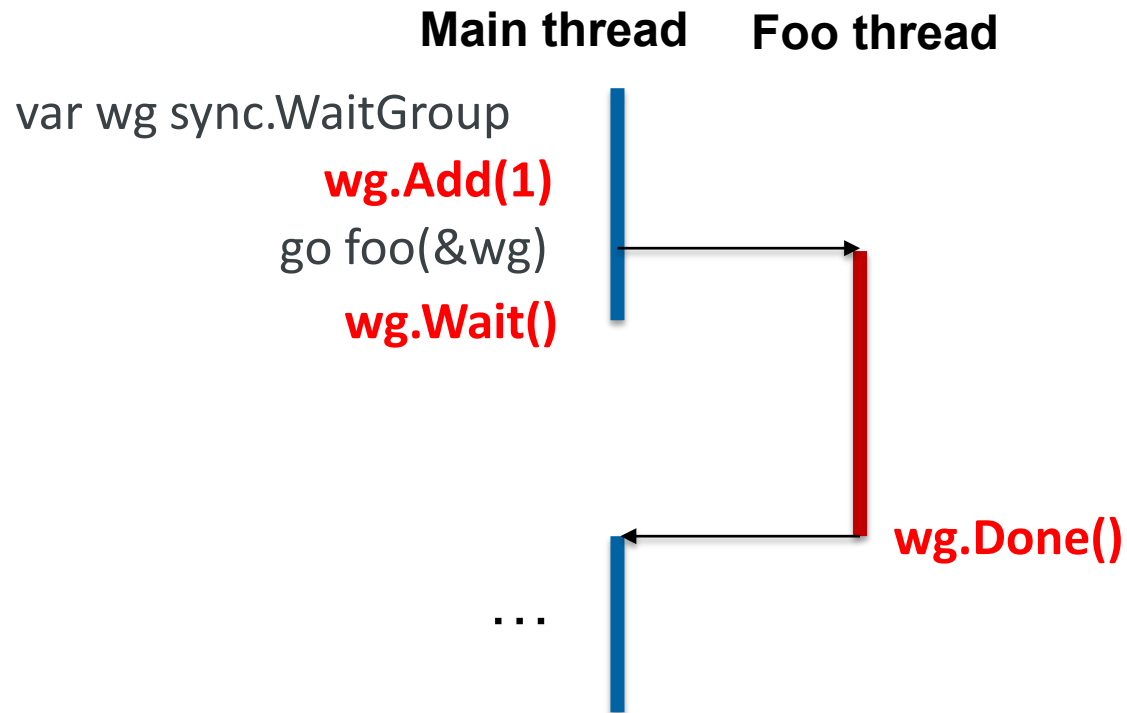
Module 3: Threads in Go

Topic 2.2: Wait Groups

Sync WaitGroup

- Sync package contains functions to synchronize between goroutines
- **sync.WaitGroup** forces a goroutine to wait for other goroutines
- Contains an internal counter
 - Increment counter for each goroutine to wait for
 - Decrement counter when each goroutine completes
 - Waiting goroutine cannot continue until counter is 0

Using WaitGroup



- `Add()` increments the counter
- `Done()` decrements the counter
- `Wait()` blocks until counter == 0

WaitGroup Example

```
func foo(wg *sync.WaitGroup) {  
    fmt.Printf("New routine")  
    wg.Done()  
}  
  
func main() {  
    var wg sync.WaitGroup  
    wg.Add(1)  
    go foo(&wg)  
    wg.Wait()  
    fmt.Printf("Main routine")  
}
```