

# Module 4: Threads in Go

## Topic 2.2: Mutex

# Correct Sharing

- Don't let 2 goroutines write to a shared variable at the same time!
- Need to restrict possible interleavings
- Access to shared variables cannot be interleaved

## Mutual Exclusion

- Code segments in different goroutines which cannot execute concurrently
- Writing to shared variables should be mutually exclusive

# Sync.Mutex

- A Mutex ensures mutual exclusion
- Uses a **binary semaphore**



- Flag up – shared variable is in use
- Flag down – shared variable is available