

# Condition Variables Exercises

# Condition Variable Motivation

- Write a program which starts two threads
  - A "writer" thread which modifies a shared string
  - A "reader" thread which uses the string, only after it has been modified
- Use a condition variable to coordinate the threads
- Avoid data races

# Condition Variable Scenario

- In the example in the video
  - The reader thread uses `std::unique_lock`
  - The writer thread uses `std::lock_guard`
- Why do the two threads use different types?

# Condition Variable Example

- Now reverse the order of the threads in main()
  - The writer thread starts first
- Add a sleep (say, half a second) before starting the reader thread
- What happens, and why?