## **Shared Data**

- Danger:
  - Data race: At least two threads concurrently access a variable. At least on of them tries to modify them.
  - Critical region: Data section, in which at most one thread can have access at one time.

- The program has undefined behavior.
- The data must be protected from concurrent access.



A mutex (mutal exclusion) guarantees that at most one thread has access to the critical region.