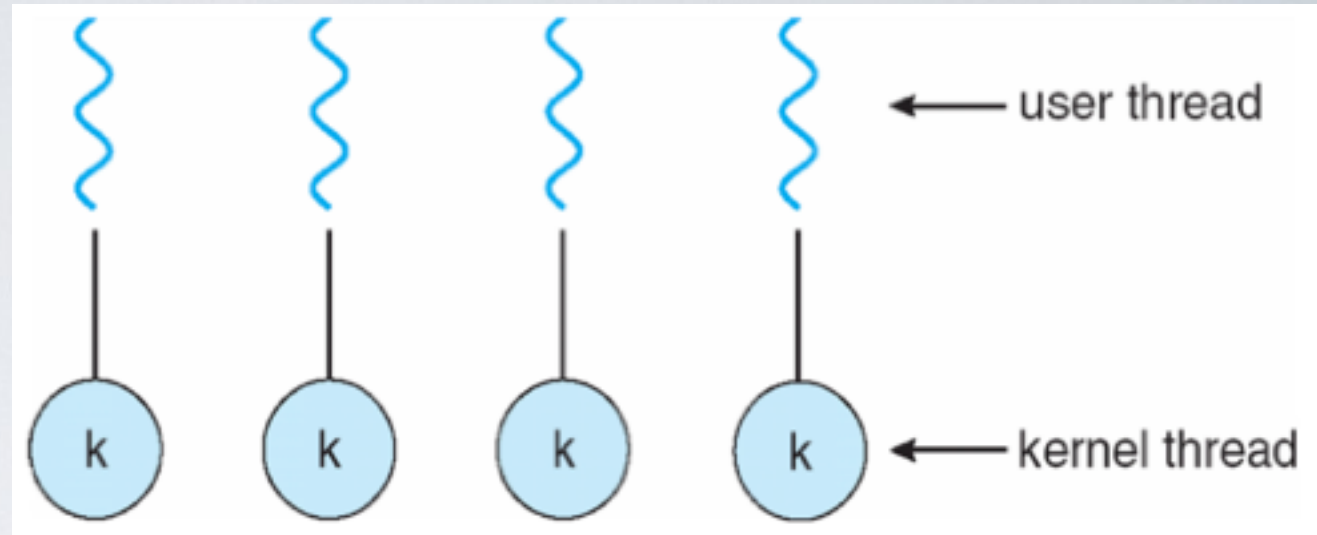# Multithreading models

- One-to-one model
  Kernel-level threads (a.k.a native threads)

- Many-to-one model
  User-level threads (a.k.a green threads)

- Many-to-many model
  Hybrid threads (a.k.a n:m threading)

One-to-one model
Kernel-level threads
(a.k.a native threads)

The kernel manage and schedule threads

- e.g Windows threads
- e.g POSIX pthreads `PTHREAD_SCOPE_SYSTEM`
- e.g (new) Solaris lightweight processes (LWP)

➡ All thread operations are managed by the kernel

✓ good for scheduling
✓ bad for speed