System Programming MP4

Deadline Dec 15, 2015
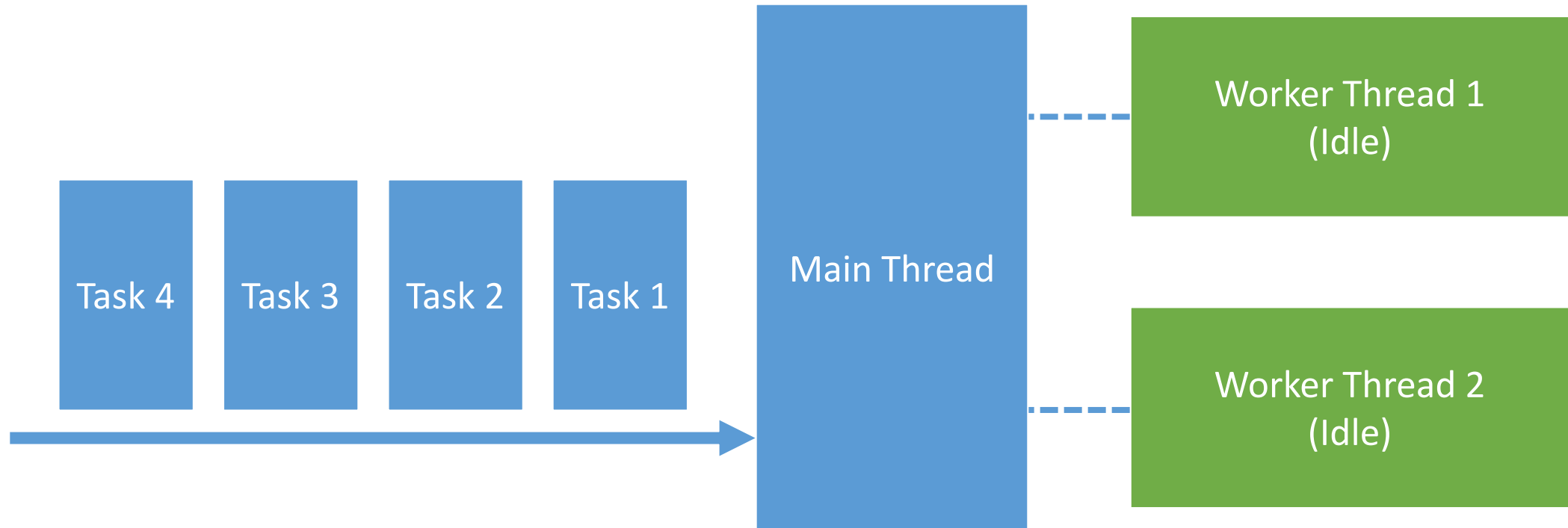
Outline

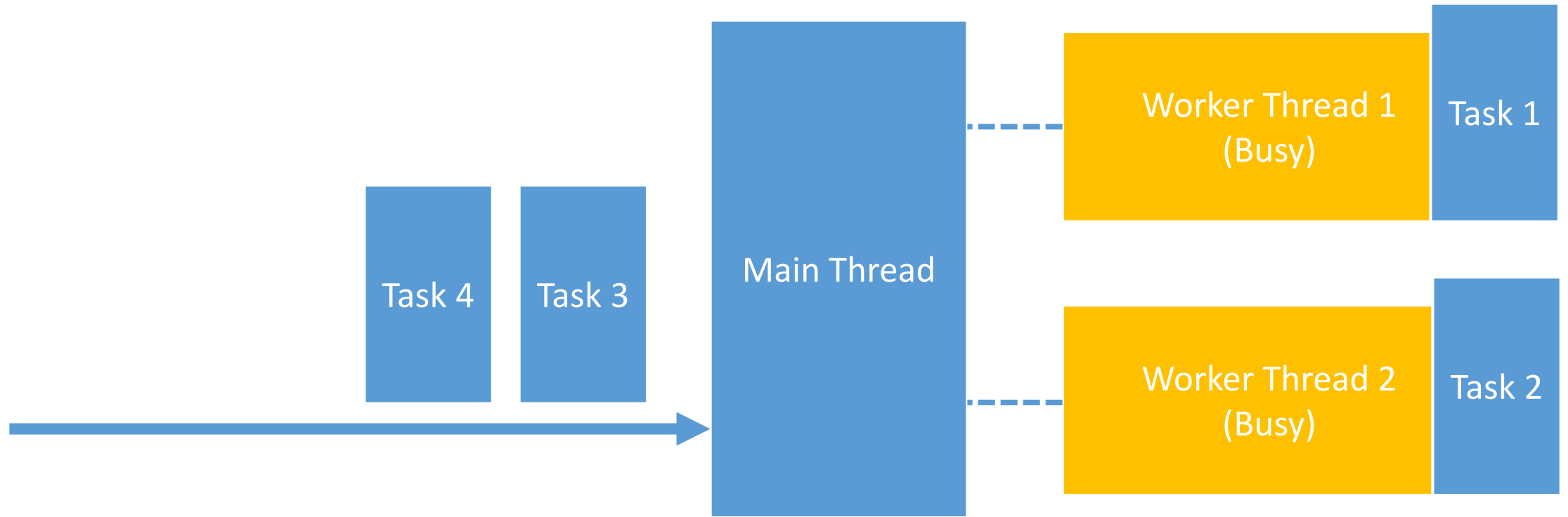- Thread Pool
- File Lock
- Paper Report

Thread Pool

- pthread in Chapter 11.

- Create a given number of thread as workers

- Assign incoming request to available worker

- Reject request if all worker are busy

- Client retry request if rejected
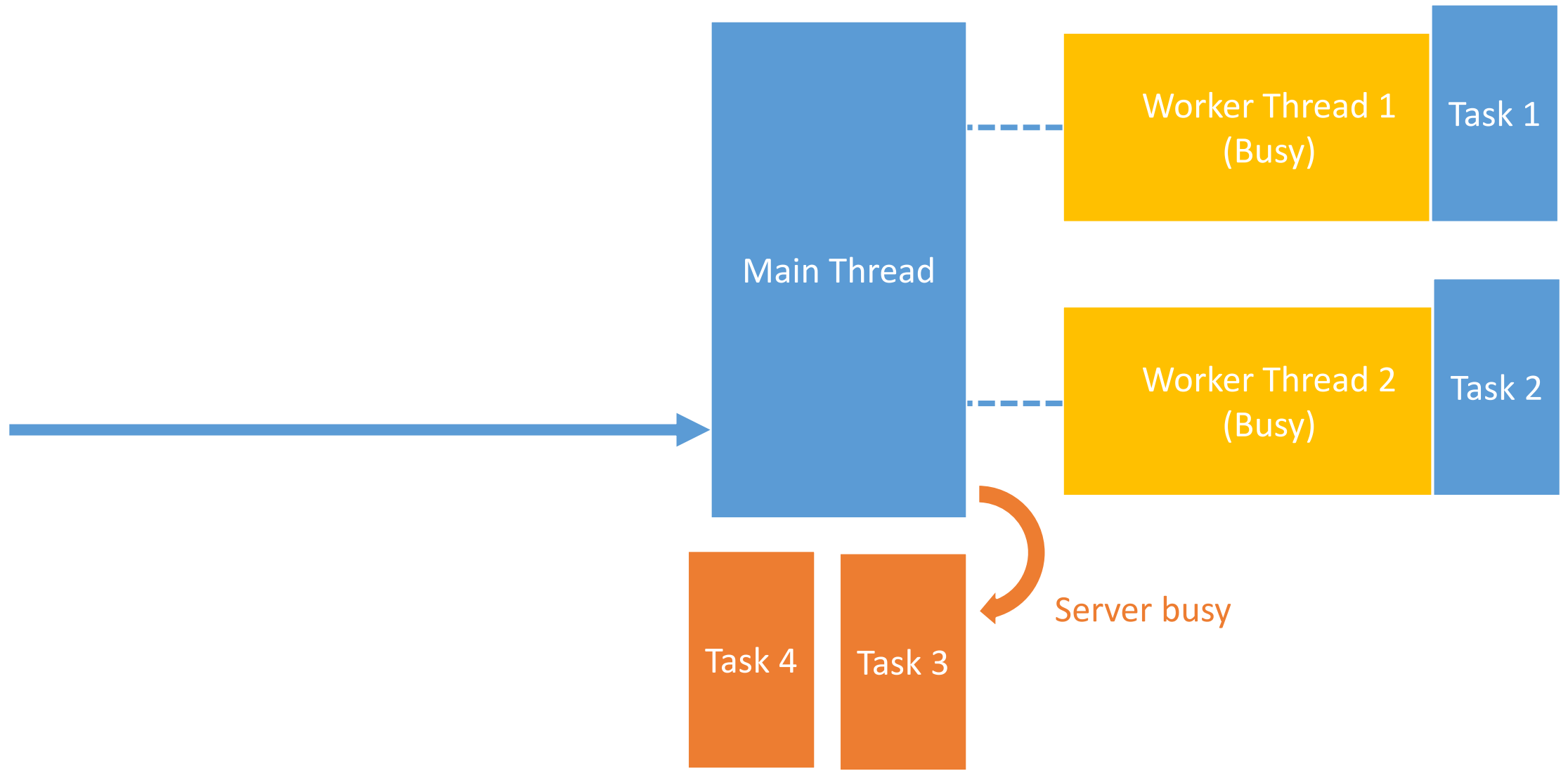
- Advantage: Can handle more than one request once

Worker Threads Managed by Main Thread

Main Thread Assign Task to Available Worker

Reject Tasks if all Worker Thread are Busy

File Lock

- fcntl in Chapter 14.3
- Use lock when uploading file
- Apply exclusive lock on the file in server
- Apply share lock on the file in client
- Reject request if file is locked
- Client retry request if rejected

- Advantage: Avoid unexpected file change during read/write

Paper Report

- How to handle multiple client device update same file.
  - Hint. file merger of MP1
- How to use process instead of thread to handle requests.
  - Hint. fork()
- Compare throughput of process method with thread method
  - Hint. memory

Deadline

- Due at 23:59, Dec. 15, 2015
- TA hour:
  - Tuesday 13:00~14:00
  - Wednesday 17:00~18:00
  - Friday 13:00~14:00