

# System Programming MP4

Deadline Dec 15, 2015

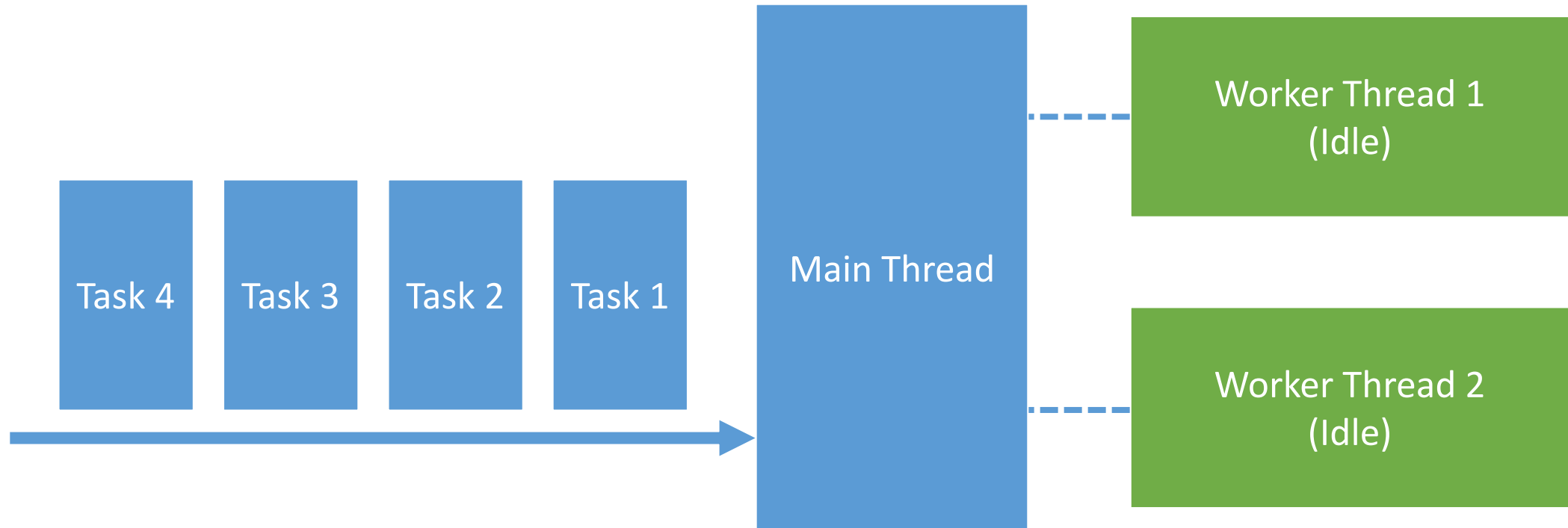
# Outline

- Thread pool
- File lock
- Paper Report

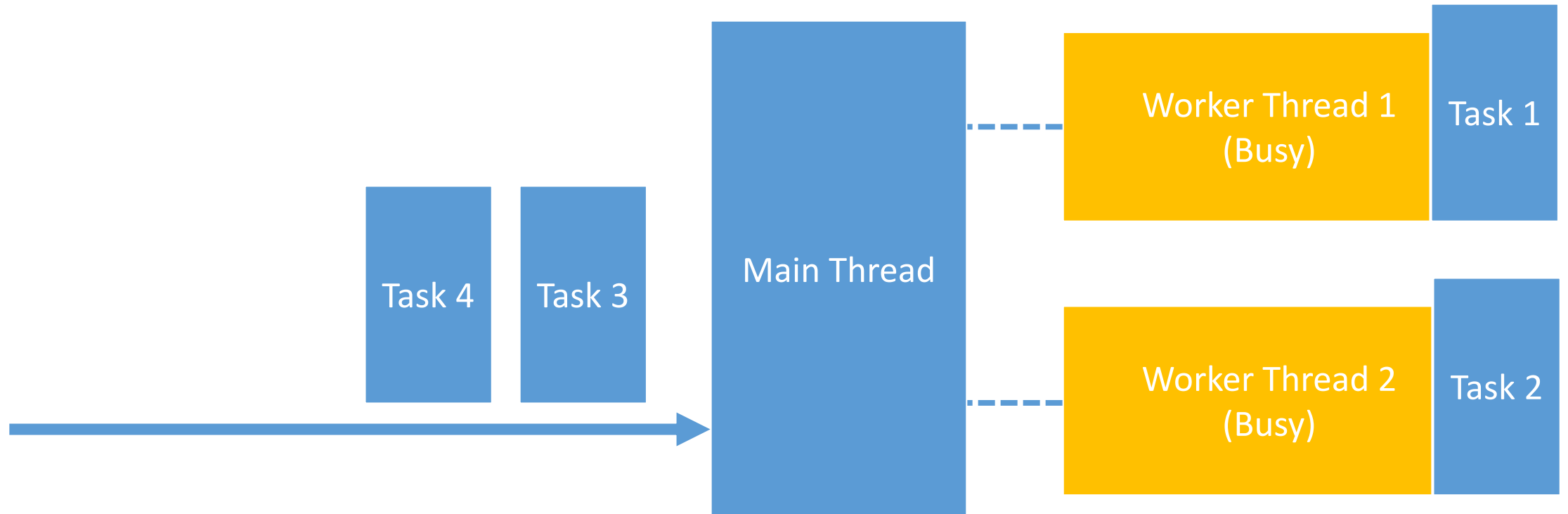
# Thread Pool

- 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
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- Advantage: Can handle more than one request once

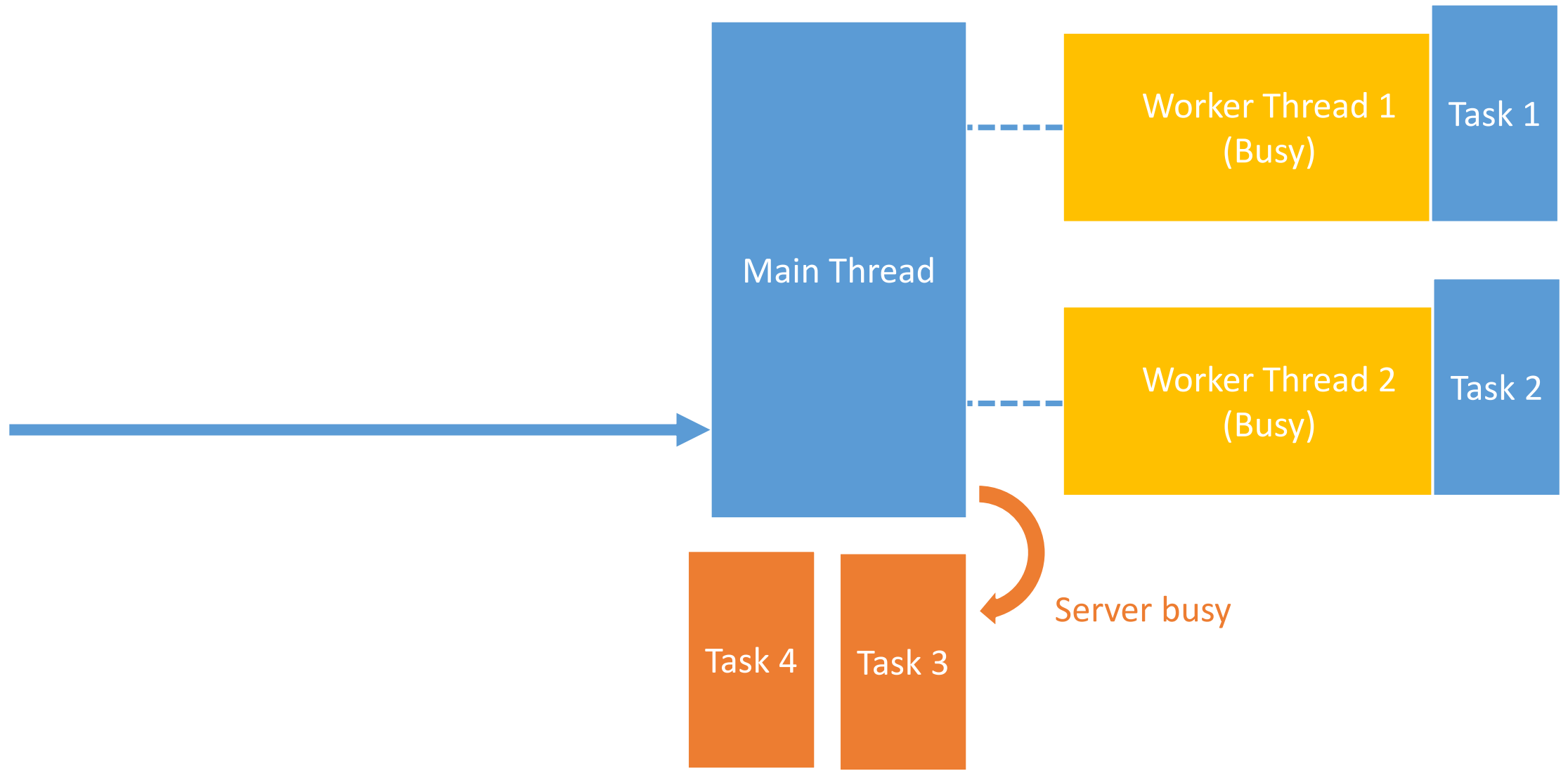
# Worker Threads Managed by Main Thread



# 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
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- 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