Distributed, Parallel, and Concurrent Systems

Prelim reading

2005-06


Ch 1 -- section 1.4 Challenges
Ch 2 -- section 2.2 architectural models
Ch 3 -- section 3.3 fundamental models, section 3.4 internet protocols
Ch 4 -- section 4.2 socket API, section 4.3 external data rep and marshalling, section 4.4 client/server systems
   (includes a practical programming knowledge of UDP and TCP communications)
Ch 5 -- section 5.2 RMI model, section 5.3 RPC model, section 5.4 events
Ch 6 -- section 6.2 OS layers, section 6.4 processes and threads, section 6.5 interprocess communications
   (includes a practical programming knowledge of pipes, forks or threads, and mutual exclusion with semaphores or mutexes)
Ch 7 -- section 7.1 security concepts, section 7.2 public/private encryption models, section, section 7.3 algorithms, section 7.4 signatures


Ch 4 - Partitioning and Divide-And-Conquer Strategies
Ch 6 - Synchronous Computations
Ch 7 - Load Balancing and Termination Detection


Ch 2 - Models of Parallel Computers
Ch 3 - Basic Communication Operations
Ch 4 - Performance and Scalability of Parallel Systems