



Chapter 1 Summary

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Goal of Summary

- Sort out what matters from your self-reading.
 - Important concepts.
 - What you should remember.
 - Sometimes a quiz from practice problems.



Chapter 1

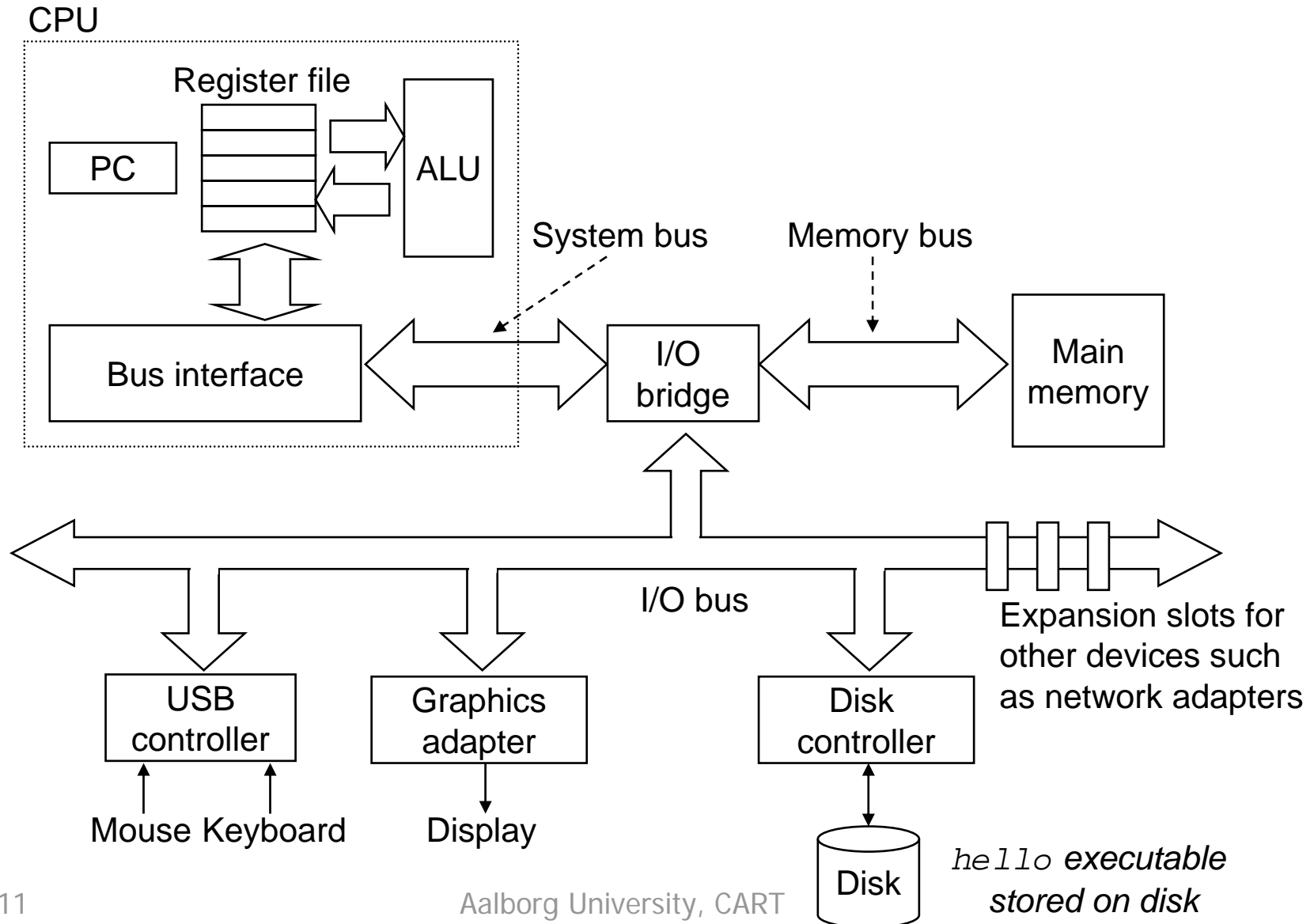
- The big picture.
- Runtime environment.



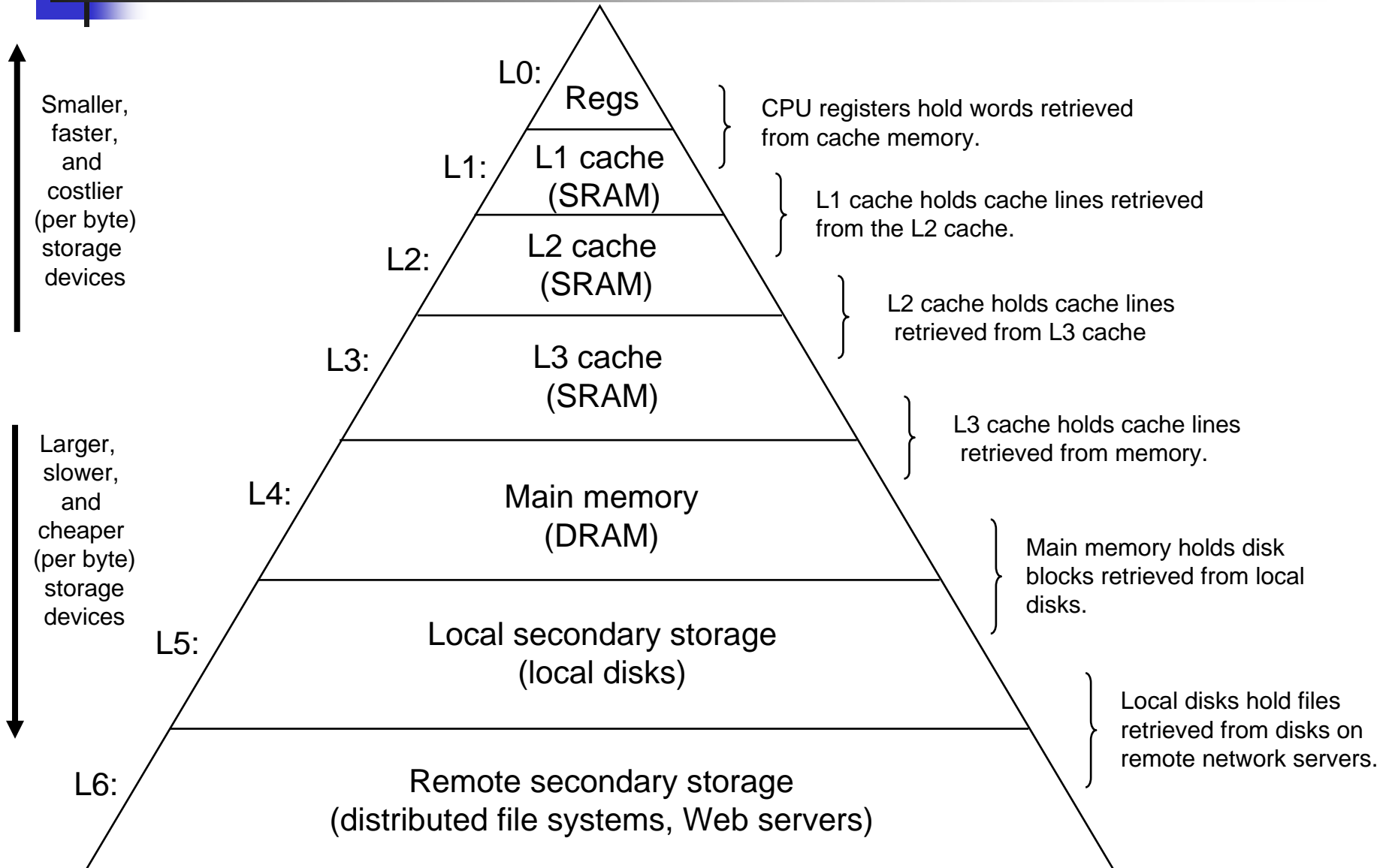
Remember

- Information is bits.
- Recap on C compilation – different phases.
 - preprocessing, compilation, assembly, linking.
- Typical hardware organization.
 - bus, words, I/O, DRAM, CPU (PC).
- Cache.
- Memory hierarchy.
- OS and its abstractions.

Hardware Organization

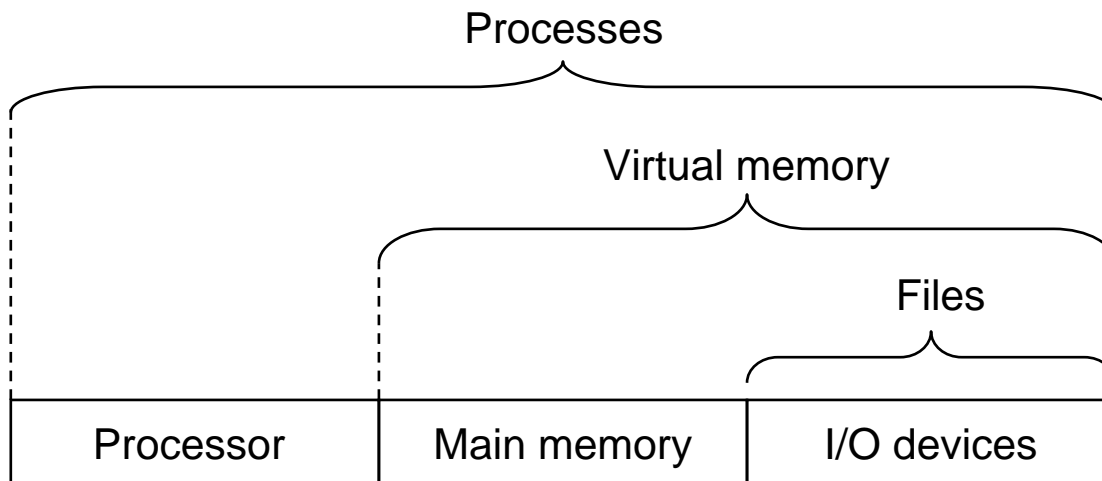
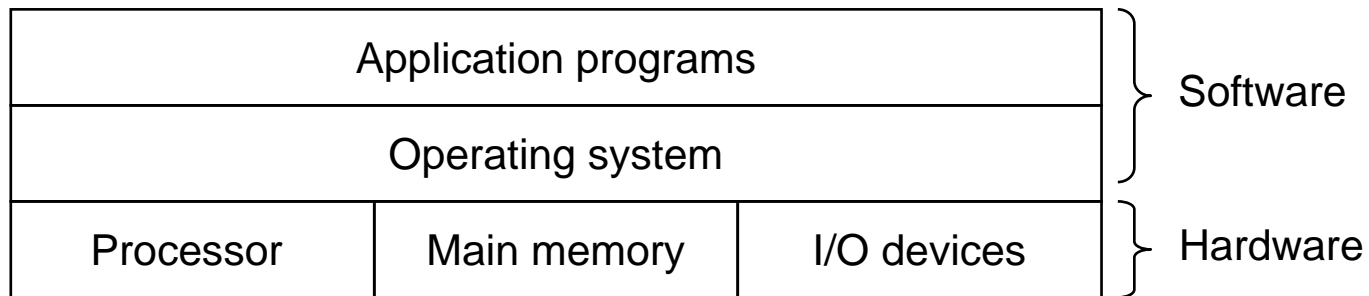


Memory Hierarchy



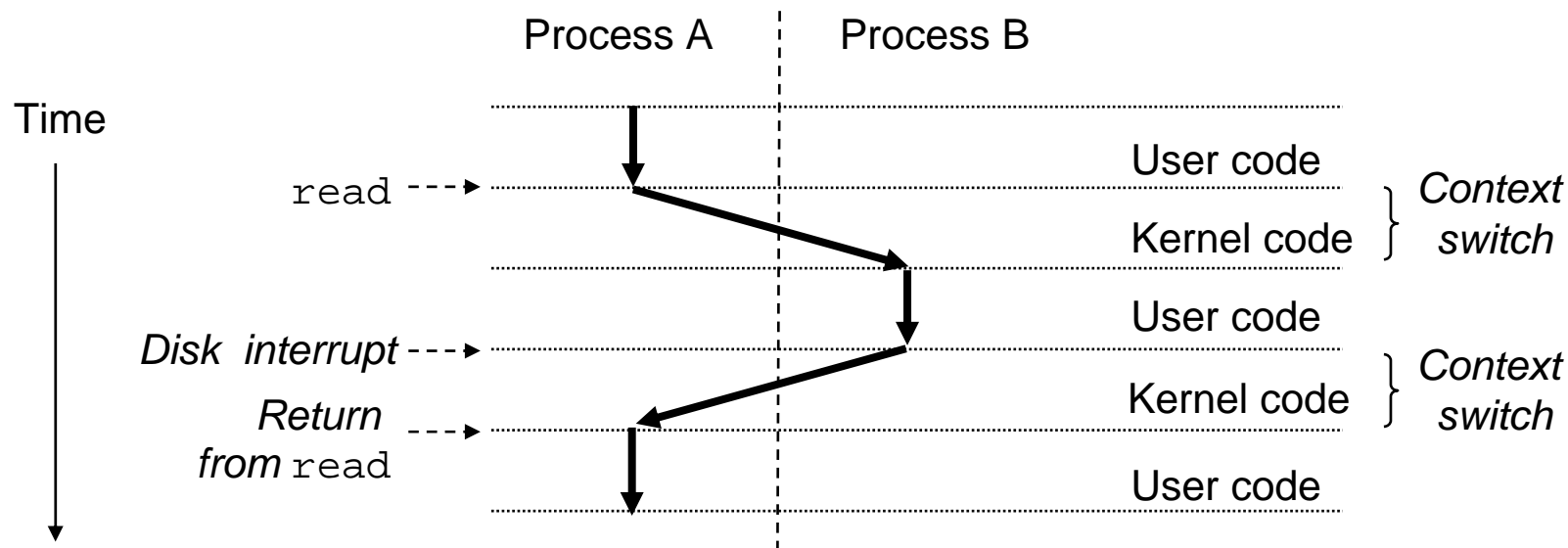


Layers and OS Abstractions



Processes

- Abstraction of running programs.
 - Concurrent execution – interleaving.
 - Context switch.





Virtual Memory

- Allows protection, multitask, virtual addressing.
 - heap, stack

Big Picture

- Networking.
- Parallelism.

