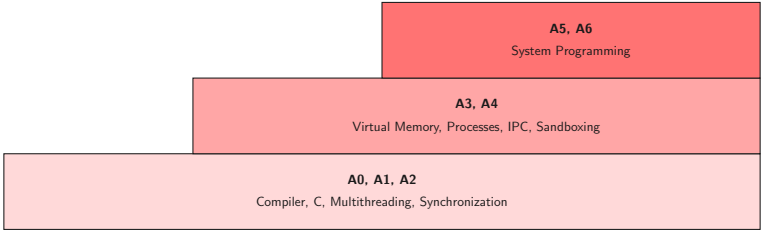
System Level Programming

Daniel Gruss

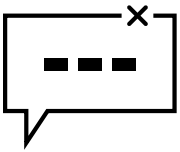
2022-10-06

Course Overview



A3 - Virtual Memory

Segmentation fault



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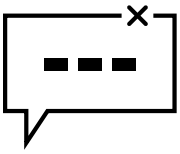

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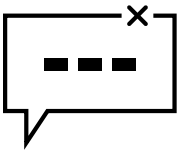

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- But aren't pointers indices of this large array called RAM / physical memory?
- How can addresses in physical memory be "invalid"?

Virtual Memory

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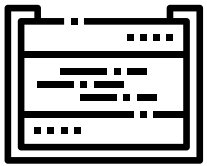

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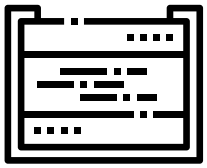

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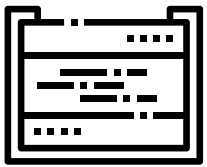

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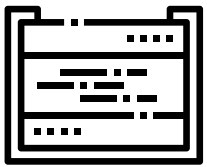

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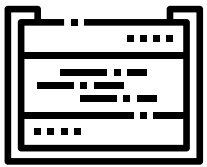

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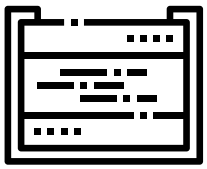

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→ different processes can use the same pointer / virtual address, but "see" different things there

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- Don't collaborate with others - we cross check who did what when, answered which question when, etc.