Secure Software Development – SSD

Handout Defenselets 1 & 2

Kogler, Grogger, Maar

15.10.2021

Winter 2021/22, www.iaik.tugraz.at/ssd

Agenda

- Handout of Defenselets 1 & 2
- Interactive Demos
- Q & A

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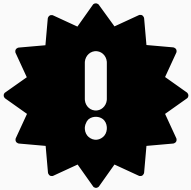

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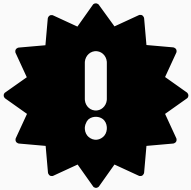

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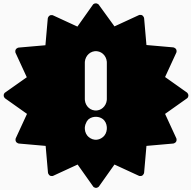

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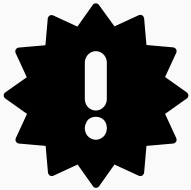

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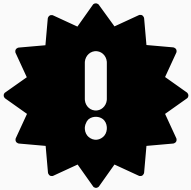

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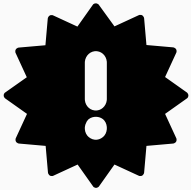

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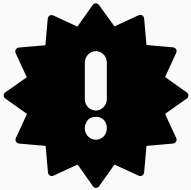

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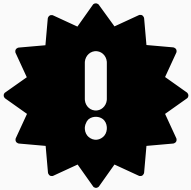

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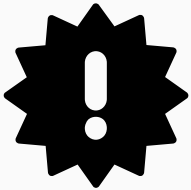

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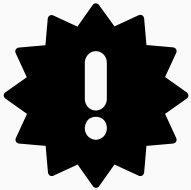

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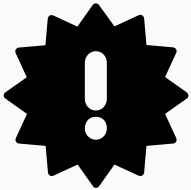

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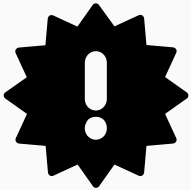

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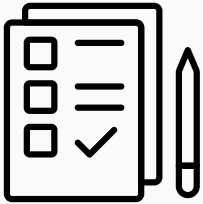
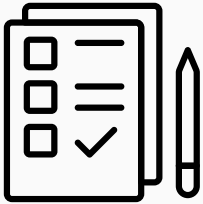


- File Handler (6 Points)
- Stack Encryption (7 Points)
- Tic Tac Toe (7 Points)
- Tiny File (7 Points)
- Points overall: 27



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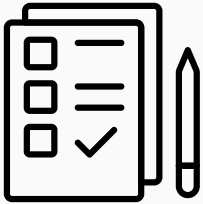

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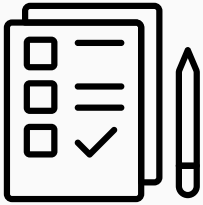

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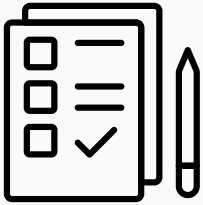

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- Only if password is known
- Problem:
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File Handler

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- Generates secret key
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- Points: 7
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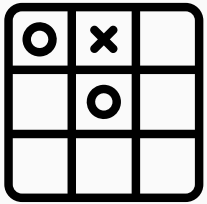

- Classic game of tic tac toe
- Problem:
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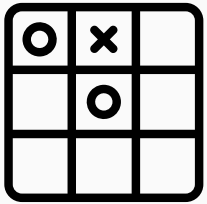

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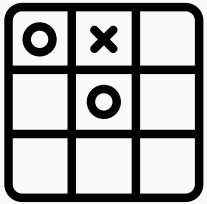

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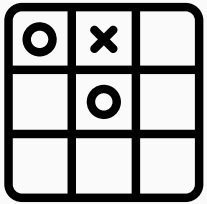

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- Deliverables:
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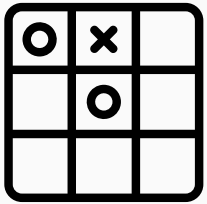
  - 50%: Fixed `tic_tac_toe.c` file.



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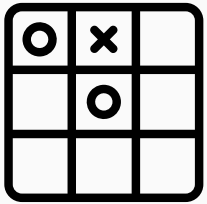

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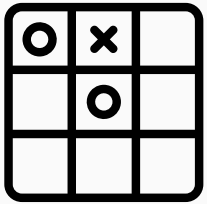

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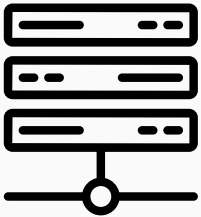

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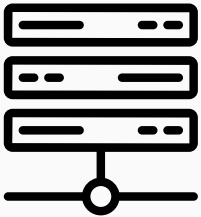
- Problem:
  - you can also request arbitrary files outside *above* the current folder



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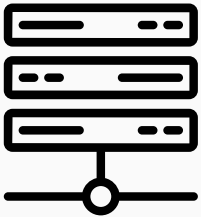

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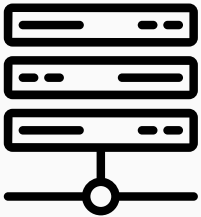

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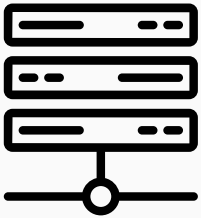

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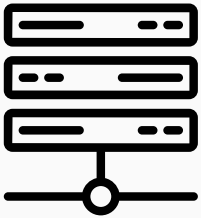

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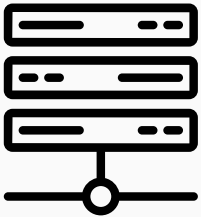

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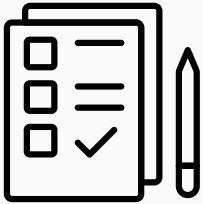

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- Binary Hotfix (7 Points)
- Reverse Polish Notation (7 Points)
- Stack Machine (7 Points)
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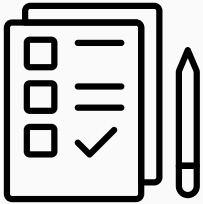

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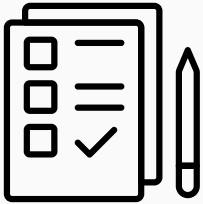

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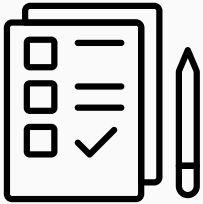

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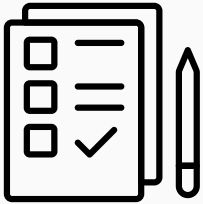

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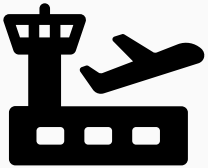
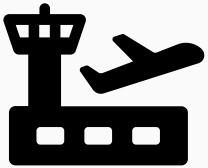


- Simulation of an airport
- Problem:
  - Sometime the simulation stops working



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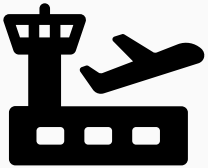

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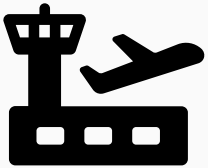

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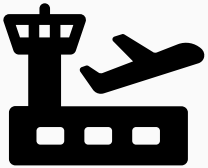

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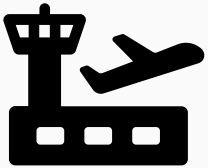

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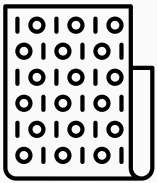

- University Management System
- Binary only
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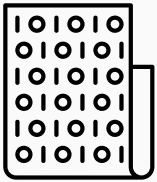

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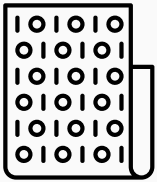

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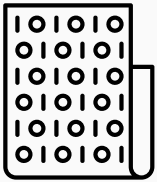

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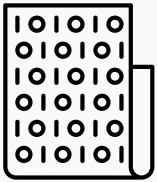

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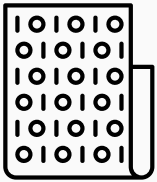

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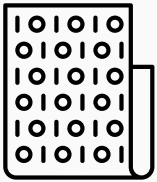

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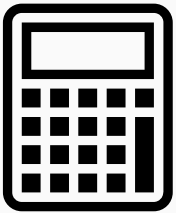

- RPN Calculator
- Problem:
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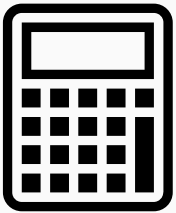

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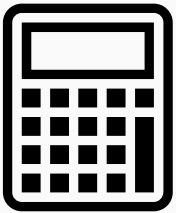

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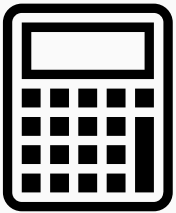

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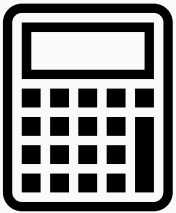

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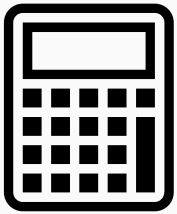

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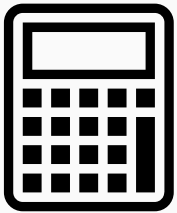

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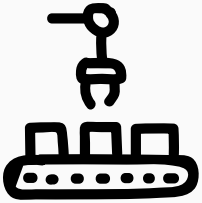

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- Problem:
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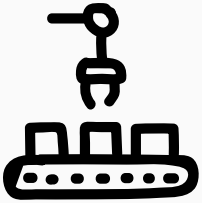

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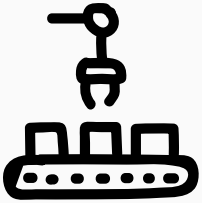

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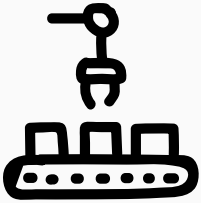

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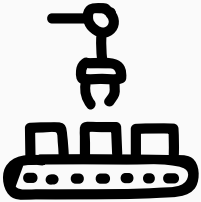

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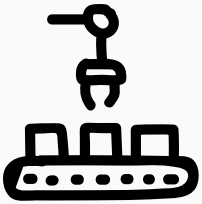

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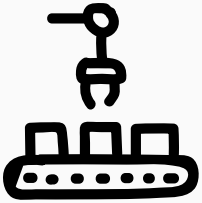

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Demo

Questions?