Challenge 2
Advanced Algorithm and Parallel Programming

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Challenge rules

- ❑ Groups up to 3 people
  - Changing team w.r.t. the 1st challenge is ok
- ❑ One week of time
- ❑ **3 points for free** in the 2nd part of the exam
  - Skip selected questions
  - Valid any time in the whole academic year
- ❑ Feedback during the lecture of 10/12
  - Presenting your solution in class is not a requirement, but highly encouraged!
  - Results will be published the day before

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Challenge rules

❑ Material to be delivered on Webeep:

- Code (which **compiles and runs without errors**)
  - Use comments
  - Include the Makefile and the bash script
- Short PDF report (**max 2 pages**)
  - Experimental setup
  - Performance measurements
  - Explanation of design choices
  - No screenshots of the code!

❑ Deadline: **21st November, midnight**

Sudoku solver in OpenMP

❑ For each position in the board, try every possible combination

❑ sudoku.cpp:

- Main program
- Implement the solver here

❑ SudokuBoard.cpp/.h

- Class definition
- Utilities

❑ bin/ folder

- Examples to be solved, script

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Sudoku solver in OpenMP

❑ Goals:

- Use OpenMP tasks

- Take care of synchronization

- Create a parallel region with a single creator, multiple executors

- Add a cut-off mechanism

- Test different configurations