Algorithms and Complexity

0. Organisational Matters

Marc Hellmuth

University of Stockholm

Algorithms and Complexity

Lecturer: Marc Hellmuth (marc.hellmuth@math.su.se)

TAs: Anna Lindeberg (anna.lindeberg@math.su.se)
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First changes:

additional lecture: Monday 02-sep 3-4
additional lecture: Monday 16-sep 3-4

there will be additional adjustments (TBA on homepage - so check frequently)

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See SCHEDULE-LINK at kurser homepage.

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All information / news / exercises etc.pp. can be found online:
https://kurser.math.su.se/ Course: DA4005 HT24

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Lectures will be in-person.

Recordings of former lectures, and the current slides and a (handwritten) script are available online (see DA4005 homepage).

Course examination

Course examination is done in four parts:

- Home assignments IND1 and IND2, worth 1.5 HP each, graded A-F.
- Practical exercises (PE), worth 1.5 HP, graded P/F.
- A written exam (THEO), worth 3 HP and graded A-F.

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All solutions must be provided in English!

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Team work to discuss the exercises is allowed and also recommended.
BUT:

- everyone has to hand in an individual and independent solution of the exercies
- you must be able to explain your solutions in the tutorial
- no copies of solutions
- never forget name + student number

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  Well-commented source code is required! Do not copy source-code from WWW!

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- On the IND/PE- exercises also provide your individual student email `abcd1234@student.su.se`
- upload the files at the course homepage under the respective assignment link.

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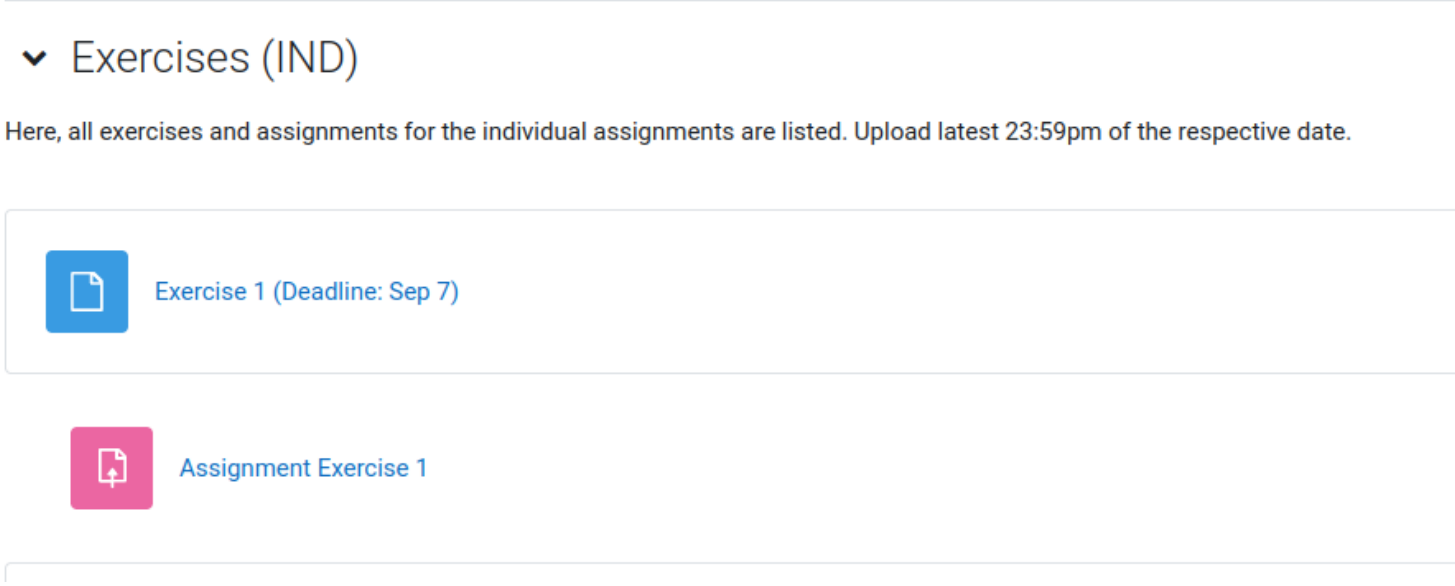

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Hence each Exercise corresponds to $\sim 20h$.

The exercises are *not* super difficult but possibly time-intensive!

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Content:

Why?

- algorithms are central in computer science
- Design of algorithms:
  - Is algorithm correct?
  - Does algorithm terminate?
  - Is algorithm efficient?
- Efficiency: depends often on the used datastructure.

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- develop and implement algorithms with data structures and analyze them with respect to correctness and efficiency

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Let’s Get It Started !