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AE4B99RPH – Solving Problems and Games, Introductionon

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Essentials

1 (Z)	A0B01LAG Z 4p+2s Lineární Algebra	A4B01DMA Z 2p+2s Diskrétní matematika	A0B36PR1 Z 2p+2c Programování 1	A4B99RPH Z 1p+3c Řešení problémů a hry	PV Humanitní, ekonomicko-manažerský
2 (L)	A4B01MA2 L 4p+2s Matematická analýza	A0B01LGR L 3p+2s Logika a grafy	A0B36PR2 L 2p+2c Programování 2	A4B36ALG L 2p+2c Algoritmizace	PV Humanitní, ekonomicko-manažerský

- compulsory course
- 1^{st} term, AE4B99RPH, 6 ECTS credits, graded assessment
- scope $1 + 3 + 6$ hours weekly - lectures, computer labs, independet home work
- lectures will not be truly regular, check the course web page

Course objectives

- Let you enjoy the satisfaction from working codes solving real world problems.
- Gentle introduction into object oriented design.
- Motivation for the theory.
- Thinking about problem, debugging, testing.
- Some problems require deep knowledge.

Tasks

Three tasks. Programming includes Python and Java

- **Prisoner's dilemma** (iterative) (Python)
  - very gentle introduction into object oriented design
  - even a simple code can simulate real world
- **Spam filter** (Python)
  - ability of an algorithm to learn from date is crucial
  - evualating the performance is not always trivial
- **Reversi** (Java)
  - how to evaluate state of the game
  - exploding space of possible solutions
- **Extra . . .** (Java or Python, or ...)
  - in prepation, . . .

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Computer labs, the rules

- short simple programming tests 0-2 points
- trivial for those who code regularly (remember the 6 hours weekly?)
- meant as feedback for us and for you

- we do not really check the attendace
- but expect that discussions wil run mostly during the lectures and labs
- the small programming tests will not be substituted, take it or miss it

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- Python and Java hackers[1] can arrange an individual programm.

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grading

No final exam, grading during the term

- Points for the three individual tasks $\approx 80\%$
- Discussions, solving puzzles $\approx 10\%$
- Small programming tests $\approx 10\%$.

A	B	C	D	E	**F**
100-90	89-75	74-60	59-45	44-30	29-0

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Think ...

Imaging a women named Lena. She is 33, single, open-heart, plain-spoken, fortright, and very smart. She studied philosophy at an university. During the study, she was very much intrested in problems of discrimination, social injustics, and participated on demonstrations against nuclear weapons.

Your goal is to guess what is doing now. Sort the following options from the most to the least probable. Lena is:

a) active feminist

b) bank clerk and active feminist

c) bank clerk

upload your solution to the upload system[2]. Detail will be provided during the computer labs, we will come back to the question later.

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