Introduction

A4M36TPJ, 2013/2014

Basic Info

- Web: https://edux.feld.cvut.cz/courses/A4M36TPJ/
- One lecture per week.
- One tutorial per week.

Prerequisites

- Basic knowledge of algorithmics, mathematics (discrete mathematics, set theory, relations), logic and programming techniques.
- Knowledge of the Java and Wolfram *Mathematica* is welcome.

Requirements

- During the semester there will be three homeworks with deadlines.
- Two of them **must be** solved and submitted on time.
- One can be solved and submitted till the end of 14th week.
- After that you are allowed to go to the exam.

The structure of the lectures

- Lectures can be divided into three parts.
- Operational semantics, Denotational semantics and Advanced programming techniques.

Operational Semantics Lectures

- Introduction to operational semantics
- Operational semantics
- Introduction to typing
- Semantics and typing of a simple imperative language
- Semantics and typing properties

Denotational Semantics Lectures

- Lambda calculus - I
- Lambda caluclus - II
- Denotational semantics
- Advanced types

Advanced Techniques Lectures

- Naming and state
- Control and data
- Abstract types, monads
- Featherweight Java, Relational Algebra

Exam

Learning Materials