Objects in Programming

Course Opening

Teachers

Thomas Bitterman

Senior Lecturer

Department of Computer Science

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Paul-Henri Spaaklaan 1 (**room C4.005**)

Professional Experience

- Machine Learning
- Web development
- Middleware

Teaching

- Computer Science
- Machine Learning

I am American…

- My English is great
- My Dutch is terrible
- Let me know if I am talking too quickly

Teachers

Research topics

- Machine Learning
- Reliable Prediction
- Transfer Learning

Teaching

- Computer Science
- Machine Learning
- Data Mining etc.

I am Bulgarian/Russian…

- I have a strong accent when I speak Spanish
- It will not change (at least during this course)
- Sorry

Evgueni Smirnov

Assistant Professor

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Paul-Henri Spaaklaan 1 (**room C4.040**)

Teaching Assistants

- Nikola Prianikov
- Arthur Goffinet
- Lazar Barta
- Heinz Doss
- Guillaume Bams
- Alexandru Balan
- Sam Goldie
- Thomas Vroom
- Aranxta Buiter Sanchez
- Maja Gojska
- Derrick Timmermans
- Filip Straka

Class Policies

- Class behavior
  - Tell us your preferred names/pronouns
  - We do not tolerate discrimination/violence
- Cheating/Honor Code
  - Collaborations are allowed but submission of your work is individual
  - Violations will be reported (more on this later)
- COVID-19 rules
  - Stay updated

Required Background

The course *is a continuation of the Procedural Programming Course!*

Course Objectives

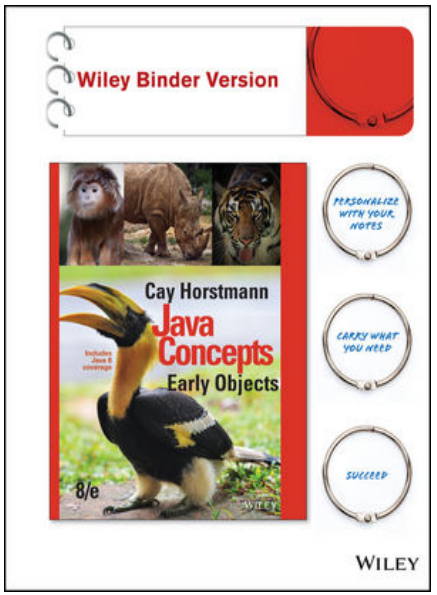
- To provide an introduction to Object-Oriented Programming
- To provide an introduction to the Object-Oriented Part of Java

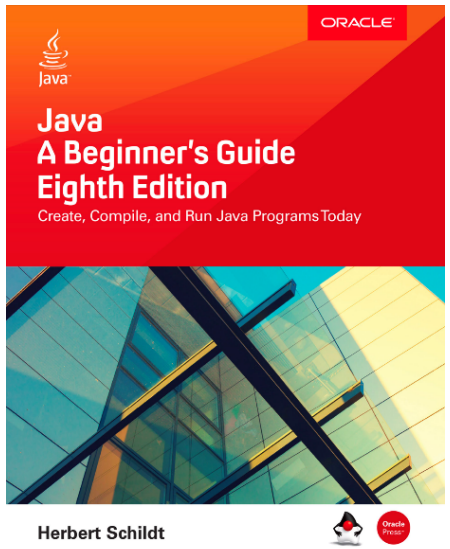
Course Topics

- Objects and Classes
- Interfaces and Polymorphism
- Inheritance
- Exception Handling
- Input/Output
- Graphics
- And Python!

Course Material

- Textbooks:
  - *Horstmann, C., Java Concepts 8th Edition, John Wiley, 2015,* **and/or**
  - *Herbert Schildt, Java a Beginner's Guide (8th edition)*





- Course Website on canvas

Software Environments

- We will use Visual Studio Code for this course:

  code.visualstudio.com

- Java Virtual Machine and Java Software Development Kit:

  java.com

Educational Approach

Each week:

- **Lecture (1-2 hours), Mondays.**
- **Labs (3 hours), Thursdays, Fridays.**
  - 0.5 hours explanation for the previous lab assignment
  - 2.5 hours for solving the assignment for the current week

Labs/Practical Sessions

- Seven Labs:
  - *Real* programming sessions: receive a (set of) problem(s) and construct a Java solution (Python solution in Lab 7)
- Lab Assignments:
  - For you: to do on your own! **INDIVIDUALLY**!!
  - Labs are not graded, but are for practice
- Solutions will be discussed
- You continue with the game: Jerry's adventure
  - For you to train on, level adjusted to the learning curve of the classes
  - You can ask for help from TAs and/or teacher that are at the lab
  - No automatic grading this time, show your creativity!

Assignment delivery

- We may use Codegrade
- Code is automatically checked for correctness
  - Several submissions possible (check limits)
  - Labs 4 and 5 will not be graded automatically (GUIs)
- Plagiarism check
  - Copying from the internet is also plagiarism
  - Do not use any resources when doing the exercises

Exam and Course Grade

- The course ends with a final **open-book** exam. **The maximum grade for the exam is 10!**
- **The grade for the exam is the grade for the course**