

Programmieren I

Praktikum-1: "Klassendefinitionen I"

Dr. Sebastiano Panichella 20.09.2018

```
class Address
                                                 class Employee
   public String city;
                                                   public String name;
   public String street;
                                                   public int age;
  public String phone;
                                                   public long salary;
   public String fax;
                                                   public long companyID;
                                                   Address address;
   public Address(String city, String
                                                   public byte[] photo;
    street, String phone, String fax) {
     this.city = city;
     this.street = street;
     this.phone = phone;
     this.fax = fax;
                     Java Class Declarations
```

About me



Senior Research Associate Zurcher Hochschule für Angewandte Wissenschaften

Zurich University of Applied Science

School of Engineering

Sebastiano Panichella

https://www.zhaw.ch/de/ueber-uns/person/panc/

or

https://spanichella.github.io/

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https://spanichella.github.io/

Research Interests:

<u>Software Engineering (SE) and cloud computing (CC)</u>: Continuous Delivery, Continuous integration, Software maintenance and evolution (with particular focus on Cloud Applications), Code Review, Mobile Computing, Summarization Techniques for Code, Changes and Testing.



Programmieren I

Praktikum-1: "Klassendefinitionen I"

OLAT: <u>Unterslagen</u>

-> Praktikum

-> 02_Klassendefinitionen_Praktikum-1.pdf

or





Ordinary Praktikum



Fast Track





Ordinary Praktikum



Fast Track



GROUPS:

The students form teams of two people and communicate under which username (ZHAW abbreviation) the teams are formed to the lecturer.

TASKS:

- INDIVIDUAL TASK: Every member of the team perform each task individually (in the individual "<u>fork</u>"). This means that the students <u>need to share</u> the individual solutions done in their GIT repositories to the lecturer.
- MERGE: Then, in a collaborative manner the students merge their solutions proposing one final (improved) solution (e.g., in a folder called "merged-praktikum-1").
- SHARING THE FINAL SOLUTION: The final solution of the exercise (i.e., "merged-praktikum-1") should be shared to the lecturer <u>"always" in the same repository</u> (i.e., one of the student Git repository)

DELIVERY:

If not otherwise communicated, at least 24 hours BEFORE the next lab session.

EVALUATION:

For each team of two, 2 "Praktika" will be assessed (1 in the first 4 weeks and 1 afterwards). *Score ranges 0 - 5 (bad 0, ok 3, good 5)*The selection is random and will not be communicated in advance.



Ordinary Praktikum



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Fast Track



Level Test:

They make the placement test on their own and check your solution by using the "Solution".

Selbstkontrolle: Selbstkontrolle by reading and answering the questions (online).

Classes: Lessons can be selectively visited (Self-control).

Simple individual project:

- Extension of the text-based adventure **game** "Zuul" from the textbook (described in Chapter 6 and 9).
- Alternatively, implement simplified text-based version of games like "Snake, Pac-man, Naval Battle, Laser Reflection Game, Bubble Spinner, Asteroids Game" or <u>Propose a project.</u>

Meeting with the lecturer:

Check and feedback of your work in a total of <u>3 meetings</u> with the lecturer:

- 1) the student has <u>2 (max 3) weeks to select and describe</u>
 <u>the project</u> (which feature will be implemented of the game, etc.)
- 2) Middle of the course (check of the ongoing project)
- 3) A final meeting close to the end.



Ordinary Praktikum



1 JOLLY

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OLAT: <u>Unterlagen</u>

-> Praktikum

-> 02_Klassendefinitionen_Praktikum-1.pdf

or

https://olat.zhaw.ch/auth/1%3A1%3A1012768835%3A2%3A0%3Aserv%3Ax/02_Klassendefinitionen_Praktikum-1.pdf

4 TASKS

OLAT: <u>Unterlagen</u>

-> Praktikum

-> 02_Klassendefinitionen_Praktikum-1.pdf

or

https://olat.zhaw.ch/auth/1%3A1%3A1000116781%3A2%3A0%3Aserv%3Ax/02_Klassendefinitionen_Praktikum-1.pdf

TASK1 (max 20 min.)

"Code Inspection" of the "public class Buch"

OLAT: Unterlagen

-> Praktikum

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TASK2

Install and use BlueJ:

OLAT: -> <u>Unterlagen</u> -> <u>Praktikum</u> -> Anleitung-Arbeiten-mit-Git.pdf -> <u>BlueJ Software</u> -> <u>BlueJ Projekte.zip</u>

&

https://olat.zhaw.ch/auth/1%3A1%3A1013057491%3A2%3A0%3Aserv%3Ax/99_Anleitung-Arbeiten-mit-Git.pdf

Download BLUEJ: http://www.bluej.org

OLAT: <u>Unterlagen</u>

-> Praktikum

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or

https://olat.zhaw.ch/auth/1%3A1%3A1012768835%3A2%3A0%3Aserv%3Ax/02_Klassendefinitionen_Praktikum-1.pdf

TASK3

- 1. Fork the repository "https://github.engineering.zhaw.ch/prog1-kurs/02_Praktikum-1_Buch" as indicated in https://olat.zhaw.ch/auth/1%3A1%3A1013057491%3A2%3A0%3Aserv%3Ax/99_Anleitung-Arbeiten-mit-Git.pdf
 - 2. Use BlueJ to edit it.
 - 3. Answer the questions.

OLAT: <u>Unterlagen</u>

-> Praktikum

-> 02_Klassendefinitionen_Praktikum-1.pdf

or

https://olat.zhaw.ch/auth/1%3A1%3A1012768835%3A2%3A0%3Aserv%3Ax/02_Klassendefinitionen_Praktikum-1.pdf

TASK4

1. Fork the repository "https://github.engineering.zhaw.ch/prog1-kurs/02_Praktikum-2_Konto" as indicated in https://olat.zhaw.ch/auth/1%3A1%3A1013057491%3A2%3A0%3Aserv%3Ax/99_Anleitung-Arbeiten-mit-Git.pdf

2. Use BlueJ

to implement a class modelling a bank account