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Entwurf von Softwaresystemen - Proseminar

Exercise sheet 9

Objectives of the exercise:

- Version Control Systems, Build Management, Continuous Integration

Exercise 1 (Build Management using Gradle - 30 Points)

Develop at least one Java Class, containing one testable method. The class has to depend on a 3rd party library such as Google Guava (<http://mvnrepository.com/artifact/com.google.guava/guava/18.0>).

Now create a 'build.gradle' file, where you specify the dependency to that library by declaring that it can be found on the Maven Central repository.

In addition develop a JUnit or TestNG test case, which can be executed by executing 'gradle test'.

As a last step create a jar file containing your project. ('\$ gradle jar').

Note: A gradle quickstart can be found on http://www.gradle.org/docs/current/userguide/tutorial_java_projects.html.

Exercise 2 (Version Control using Git - 40 Points)

Create an account on github.com. As a student you are eligible to get the small paid plan for free! Be sure to use your institutional e-mail address and request the discount on https://education.github.com/discount_requests/new.

Navigate to the page <https://try.github.io/levels/1/challenges/> and master the tutorial. Provide a screenshot to verify that you actually also did it.

Now as you know how to use git you are asked to share your project from exercise 1 on github.

Exercise 3 (Continuous Integration - 30 Points)

On <http://www.thoughtworks.com/continuous-integration> you will find a very short article on continuous integration. Create a 'README.md' file in your project from Exercise 1 and write a short essay on continuous integration by explaining and mentioning the concepts, benefits and drawbacks shortly (max. 400 words).

You might want to use the widely used Markdown syntax for formatting your text <http://en.wikipedia.org/wiki/Markdown>. As soon as you finished your essay push it to the repository.