



Program Systems Development practice

Practice 1 Introduction Developer tools

Introduction

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Obligation

- ▶ Attendance at practices are compulsory
 - How to check: from 3rd to 14th practices mini tests in Coospace
 - Allowed number of absence: at requirements of mini tests



Structure of practices

- ▶ Mini test in 10 minutes (automatic evaluation)
- ▶ Teaching new materials, creating examples together
 - The examples will be uploaded after every lab (in Coospace)
- ▶ Solve problems on your own



Mini tests

- ▶ You should fill in the tests in Coospace (e.g.: single choice, multiple choice, error-correction, etc...)
- ▶ 10 minutes to solve the test
- ▶ 4 questions in each test
- ▶ The questions comes from the materials from the last practice
- ▶ Reach at least **50%** to get a „successful” for one test

Learning through examples

- ▶ Learning the new materials in 30 minutes
- ▶ Create examples together




Exercises

- ▶ Solve problems alone in 50 minutes
- ▶ Exercises are all from the new materials
 - Mainly programming
- ▶ **No obligation, just to earn extra points!!!**



Evaluation of exercises

- ▶ 1st: 4 points
- ▶ 2nd: 3 points
- ▶ 3rd: 2 points
- ▶ 4th: 1 point



```
▶ if (extraPoints ≥ 16) {  
    examGrade += 1;  
}
```


Compulsory program

- ▶ Create a whole project from scratch till the end of the term-time (right before the start of exam period)
- ▶ Use Node.js and Angular 2+ technologies
- ▶ Work in groups of 2
- ▶ The groups have to show their projects in 10-15 minutes in the last practice
- ▶ Topics will be available right before the spring holiday (teams should be formed till there)
 - Max: 50 pts
 - Should be reached: 25 pts (50%)



Minimum requirements to take exam

- ▶ 7/11 successful mini tests (≥ 7 pts)
- ▶ At least 50% in the project work (≥ 25 pts) (specifications later)
- ▶ The mini tests, the project and the extra points for the exercises together determine the final mark.



Topics of the semester

- ▶ 1. Introduction, VS Code
- ▶ 2. Git
- ▶ 3. Docker
- ▶ 4. Build tool (Grunt), JS/TS Examples, Asynchronous operations
- ▶ 5. NodeJS REST, REST + JS Client
- ▶ 6. REST + AUTH
- ▶ 7. MongoDB + NodeJS
- ▶ **8. Spring break – No practice!!!**
- ▶ 9. MongoDB + NodeJS
- ▶ 10. Angular
- ▶ 11. Angular
- ▶ 12. NetBeans/IDE4J Spring Boot
- ▶ **13. May 1 – No practice!!!**
- ▶ 14. Hibernate, Spring REST / Spring Security/Transactions
- ▶ 15. Project presentation

Grades and intervals

▶ Max: 62 points

▶ 55 - - 5

▶ 46 - 54 - 4

▶ 40 - 46 - 3

▶ 32 - 39 - 2

▶ 0 - 31 - 1





**Good luck to the whole
semester!!! ;)**



Visual Studio Code



Visual Studio Code

- ▶ Powerful source-code editor
- ▶ Works on Windows, Linux, Mac
- ▶ Built-in support for JavaScript, TypeScript, Node.js
 - Extensions for other languages (C++, C#, Python, PHP, etc...)



Visual Studio Code Extensions

- ▶ HTML Snippets
- ▶ HTML CSS Class Completion
- ▶ GitHistory
- ▶ Angular2

