PROGRAMMING IN JAVA

Akademia Finansów i Biznesu Vistula
Studia globalnych możliwości

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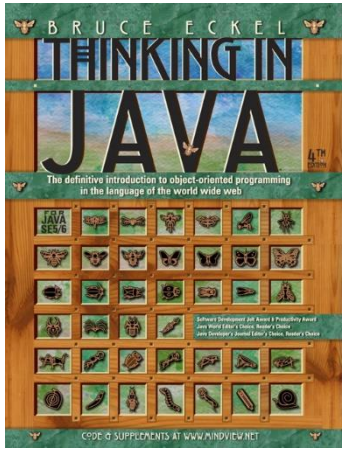
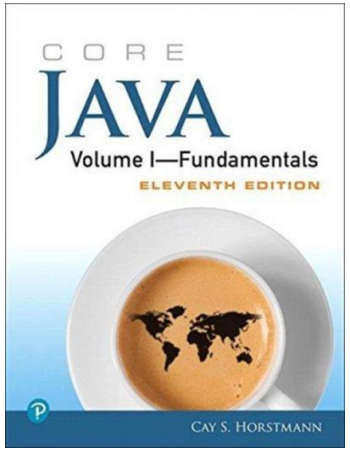
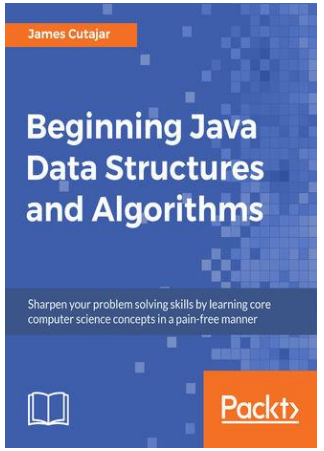
SCHEDULE:

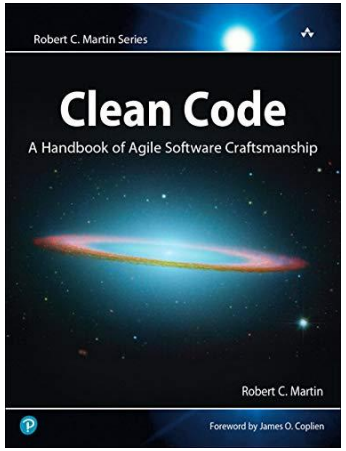
1. Introduction to Java, Intellij Idea environment, repository of GIT and GitHub
2. Java's Primitive Types and operators
3. Program Control Statements
4. Java's Non-Primitive Types
5. Introduction to classes (also abstract classes), objects and methods.
6. Inheritance
7. Packages and Interfaces
8. Exception Handling
9. Using I/O
10. Multithreaded Programming
11. Enumerations, Autoboxing, Static Import, and Annotations
12. Generics
13. Lambda Expressions and Method References
14. Programming project (REST API type) according to Clean Code rules.

BIBLIOGRAPHY:









1. Bruce Eckel: Thinking in Java (1248 pages)
2. Hortsmann Cay S.: Java. Volume I - Fundamentals– Eleventh Edition (768 pages)
3. Cutajar James: Beginning Java Data Structures and Algorithms (168 pages)
4. Robert C. Martin: Clean Code. A Handbook of Agile Software Craftsmanship (424 pages)
5. Java documentation: https://docs.oracle.com/en/java/
6. In a smart way, of course: https://stackoverflow.com/ and similar from Web.

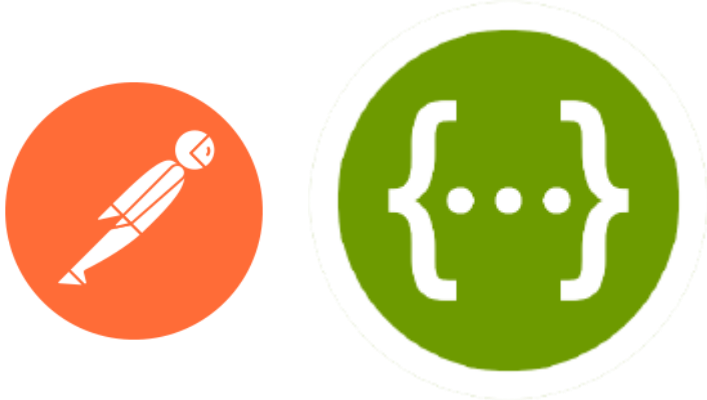
IMPORTANT TOOLS FOR JAVA DEVELOPERS

1. **Intellij IDEA** is an integrated development environment (IDE) created by JetBrains.

2. Software for tracking changes in our code **Git**.

3. Internet hosting for software development and version control e.g. **GitHub** .

4. **Postman** and Swagger for testing API.



IMPORTANT TOOLS FOR JAVA DEVELOPERS

5. Framework Spring

6. Framework Hibernate

7. MySQL i MySQL Workbench and H2 database

OTHER IMPORTANT TOPICS THAT YOU SHOULD KNOW BUT WE DON'T HAVE TIME FOR THEM

1. Writing automated tests, so writing tests for checking that your code works properly. But also, to achieve investors or company standards on code coverage by tests - usually about 80%.
2. One big programming project for whole group, that would learn us how to work with such tools like: JIRA (agile project management), Confluence (for creating documentation but not only).
3. Design patterns overview.
4. Debugging - the process of identifying and removing errors from computer hardware or software - we will do some short introduction to this process but it's for sure not enough.

FEW RULES ABOUT ATTENDANCE

1. On **lectures** attendance is **not obligatory**, I will not check the list.
2. On **exercises** attendance is **obligatory**, the list will be checked, absence on more than three classes does not allow student to pass this subject.
3. As an important rule! During exercises you must do tasks that I have prepared for you. I will check students' progress; task not accomplished is equal to absence on exercises.

HOW TO PASS THIS SUBJECT

1. From lectures, there will be an exam in the end. And precisely it will be a test (70% is enough to pass), about 45 questions, each with only one correct answer. I will give you questions (and answers) around two weeks before exam date.
2. As per exercises, you have to do tasks that I have prepared and cannot have more than 3 absences.
3. Students that think that they I are ready to pass this subject now (e.g. someone who works as Java Dev or have some Java certificate), please contact me, during our exercises.

MY PERSONAL GOAL

Prepare students to job interview on Intern/Junior Java Developer position.

THANK YOU

Więcej na:

www.vistula.edu.pl

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