

Week 16 - Reflection & JVM



This page is a draft, treat it accordingly,

Topics covered in this week

- Java reflection API
- JVM Architecture
- Class Loaders
- Garbage Collectors

Reading material

- <https://www.baeldung.com/java-reflection> (inspecting classes, constructors and methods)
- <https://www.oracle.com/technical-resources/articles/java/javareflection.html> (simulating the instanceof Operator, creating new objects and changing values of fields)
- <https://dzone.com/articles/jvm-architecture-explained> (JVM Architecture)
- <https://www.baeldung.com/java-classloaders> (Class Loaders)
- <https://www.baeldung.com/jvm-garbage-collectors> (Garbage Collectors)

Homework

Difficulty	Problem	Notes
MEDIUM	Process the file from week 1 (with first name, last name, DoB and DoD) and using reflection create instances of your Person class. The idea is to map each line from the text file with an instance of the Person class.	
MEDIUM	<p>Create a simple class hierarchy with at least 3 classes (for example Vehicle, Car and Aircraft), add for each one some fields and methods. Using the reflection API implement a program that checks the next rules of clean code for your hierarchy:</p> <ul style="list-style-type: none">• field has private modifier• field name starts with lowercase• method name starts with lowercase <p>Your program will have as an input a class name and it will check the above rules also for the parent class if exists. Run the program for at least two examples and print a summary of the code inspection.</p>	
EASY		