

# ***CODE REVIEW: TP1***

## ***SUMMARY***

An intern at your company has just wrapped up a project to create a password strength calculator. The tool works, but there's a catch—the code is a mess. It's poorly structured, lacks comments, and doesn't follow best practices. Now, it's up to you to take this rough draft and turn it into a professional, industry-ready and open-source application. However, we didn't want our competitor to use it for business purpose.

**Your Mission:** Your task is to step into the shoes of a software engineer and industrialize the intern's code. This means transforming it from a basic, functional prototype into a polished, maintainable, and scalable piece of software.

<https://github.com/Fisjkars/CodeReview>

## ***DELIVERABLES EXPECTED***

A Github repository containing the intern code with the following elements:

- Maven/Gradle/Ant project
- README.md with a summary of the project and basic usage of the library.
- Code:
  - o License chosen.
  - o Comment the code using Javadoc.
  - o Apply a code style policy (ex: Checkstyle).
  - o Fix bugs if necessary.
- SCM:
  - o Github project.
  - o Security.md.
  - o Issues Templates.
  - o Pull request template.
  - o Protected Branches policies.
  - o Define pull request policy (approval etc...)
- Tests:
  - o Units Tests implementation with proper test plan.
  - o "Performance test" on "ComputeMD5" method
- CI/CD:
  - o Foreach pull requests:
    - Checkstyle
    - Unit Tests passed.
    - Test coverage reach 90%. (Jococo)
    - Performance Tests passed.
    - SAST run successfully without default (Ex: Semgrep).
  - o Foreach main modification:
    - Build and Deploy version in Github Maven registry.
    - Deploy documentation using GH-Pages with URL (blah.com/javadoc/<version>)
    - Deploy Cobertura report with GH-Pages with URL (blah.com/cobertura/<version>)