

Exercises for lecture “Software Engineering 2” – *Best Practices*

1 Refactoring a Layered Application into a “Clean” Architecture

This exercise is loosely based on: <https://blog.cleancoder.com/uncle-bob/2016/01/04/ALittleArchitecture.html>

In Moodle you find a simple layered application (with a primitive database and very simple UI). Unpack this maven project **into** your Eclipse workspace and import it as maven project.

When you run the application, it initializes a database, reads a record from the database, updates this record and stores it back again.

Refactor this into a clean architecture as discussed in the lecture. Hints:

- Assign the classes to the correct layers – rename the packages accordingly (especially “main” → “assembly”)
- Define in- and out-going-ports where applicable
- Realize dependency injection
- Especially make the database url an constructor parameter
- Refactor the init-method of main – it can now take the created instance of the database as a parameter.

Again, draw the package diagram of your refactored application.

In what aspects is the refactored architecture more testable as the original?