


Rehearsal Exercises MVC

Before you start: to make sure that you can develop projects using ThymeLeaf, you must first try out the example project of the presentation.

So, then:

1. Download *example-mvc-2.zip*
2. Unzip and open in IntelliJ
3. Go to MainController. If 'String' is highlighted in red: adjust the SDK!
4. Run the project (top right )
5. Wait until you see this in the window at the bottom:

```
o.s.s.concurrent.ThreadPoolTaskExecutor : Initializing ExecutorService 'applicationTaskExecutor'
o.s.b.a.w.s.WelcomePageHandlerMapping   : Adding welcome page template: index
o.s.b.w.embedded.tomcat.TomcatWebServer  : Tomcat started on port(s): 8080 (http) with context path ''
```

6. Go to your browser and navigate to localhost:8080. You will need to see this homepage and then you can continue experimenting from there on.

Working with Thymeleaf - Food app

[About our app! \(Static page example\)](#)

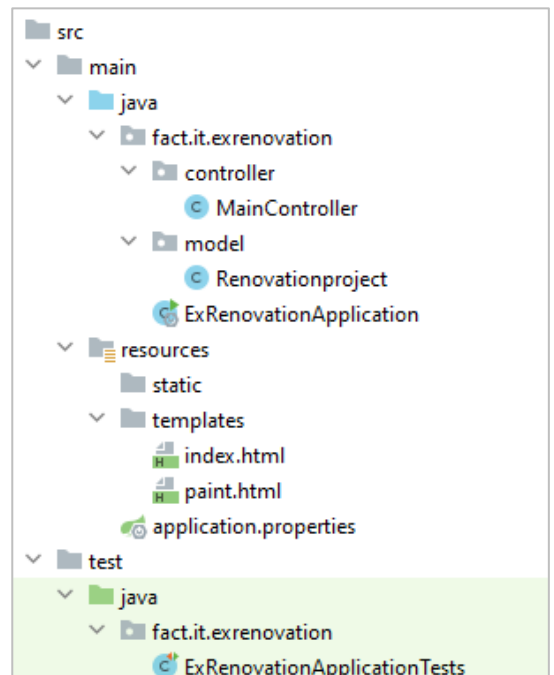
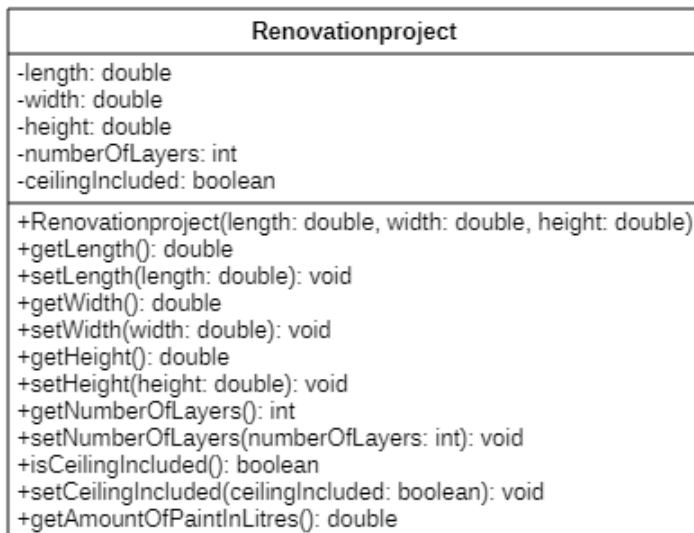
[Check out one dish! \(Dynamic data page example - single object\)](#)

[Check out all our dishes! \(Dynamic data page example - list\)](#)

[Submit a new dish. \(Data-entry form and processing example\)](#)

Exercise 1

Create a new project and add the class **Renovationproject** in a package called *model* according to the UML-diagram below:



The method `getAmountOfPaintInLitres()` indicates how many litres of paint you need.

Tips:

- area of all walls in the room = $2 * (\text{length} + \text{width}) * \text{height}$
- ceiling area = $\text{length} * \text{width}$
- per 10m² you need one litre of paint

Now create the web application. You start at **index.html** where you enter not only your name but also all the information needed to calculate how much paint you will need.

Calculate the amount of paint you need!
Enter your name:
Fill in the dimensions of your room:
L (in metres)
W (in metres)
H (in metres)
Would you also like to paint the ceiling? ☐
How many layers of paint do you want to put on? ☐ 1 ☒ 2 ☐ 3

If you enter this information you will (via the **MainController**) end up on the **paint.html** page where you can read how much paint you will need to buy.

The *Back* hyperlink takes you back to the homepage **index.html**.

Hello John
You will need 7.1 litres of paint.
[Back](#)

Expand the exercise: when someone indicates that the ceiling also needs to be painted, an extra "good advice" is printed on paint.html:

Calculate the amount of paint you need!

Enter your name:

Fill in the dimensions of your room:

L (in metres)

W (in metres)

H (in metres)

Would you also like to paint the ceiling? ☒

How many layers of paint do you want to put on? ☐ 1 ☐ 2 ☒ 3

Hello Amelie

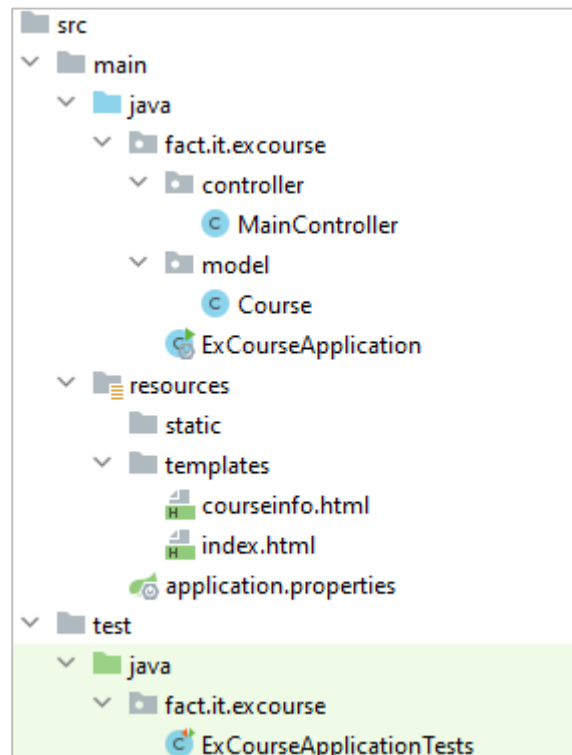
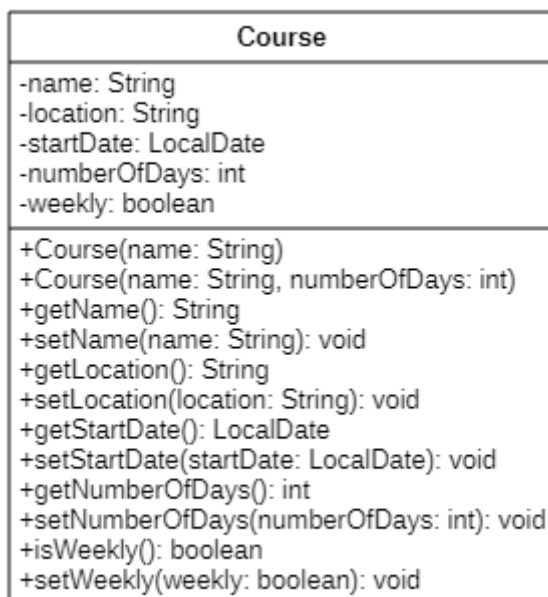
You will need 16.5 litres of paint.

Have you thought about using a special ceiling paint?

[Back](#)

Exercise 2

Create a new project and add a **Course** class according to the UML-diagram below:



Now create the web application. Start with the page **index.html**:

1st example:

You should be able to fill in 4 text boxes and indicate whether the course is a weekly course, to then press the *Register a new course* button to submit the form.

Please enter the course details

Course name

Location

Startdate (DD/MM/YYYY)

Number of days ☒ weekly

On **courseinfo.html** the following result should get displayed:

Course

Name: Java Essentials

Location: Leuven

This is a weekly course, starting on 13/10/2021 running for 4 weeks.

[Back](#)

The *Back* hyperlink takes you back to the homepage **index.html**.

2nd example:

Please enter the course details

Course name

Location

Startdate (DD/MM/YYYY)

Number of days ☐ weekly

In this case the course runs for 5 consecutive working days.
You should see the result in the **courseinfo.html** page.

Course

Name: Python

Location: Geel

This course starts on 23/04/2021 and runs for 5 days.

[Back](#)