

Exercises

Design Patterns: State

Java SE and Java EE patterns and best practices

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0 Prerequisites, assumptions and notes

- Have Maven 2 installed in your computer
- Have Eclipse installed in your computer (Recommended: Indigo Version)
- I'm assuming you're running the exercises in Ubuntu
- It's recommended that you place all Design Pattern exercises under a common directory. For example:
`${user.home}/javatraining/designpatterns`

During the exercises I will refer this directory as
`${designpatterns.exercises.folder}`

1. In every exercise I will refer the directory where you are working as
`${project.dir}`.

1 Quick Start Exercise

You will put your hands on a small program and apply the Adapter Design Pattern.

1.1 Checkout code and create eclipse project

In this step you will checkout the code to `${project.dir}`.

Complete the following tasks.↓

1. Go to the `${project.dir}` directory

```
cd ${project.dir}
```

2. Checkout the code from code.google.com

```
svn checkout  
http://javatraining.googlecode.com/svn/designpatterns/trunk/state
```

3. Enter the created directory and run the tests to check that everything is ok.

```
mvn test
```

4. Enter the created folder and generate the eclipse project

```
mvn eclipse:eclipse
```

5. Import project into eclipse

✓ *you're done! You have now the project ready to refactor.*

1.2 Implement State pattern

Complete the following tasks. ↓

1. Open the project **state** with eclipse
2. Analyze package
`eu.jpereira.trainings.designpatterns.behavioral.state.appliance.state`
3. Open test class `ApplianceStateBehaviorTest` and run the tests
4. Fix the tests:
 - a. Open `ApplianceState` and follow the *TODOs* described in the file
 - b. Open `Toaster`, which is the `Appliance` you're testing, find the *TODOs* in that file and follow them
 - c. Open `OffState`, find the *TODOs* in that file and follow them
 - d. Open `OnState`, find the *TODOs* in that file and follow them
 - e. Open `StartedState`, find the *TODOs* in that file and follow them
5. Run the tests

✓ *You're done.*