

# 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://javatrainings.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.