

Generate Test Case Plugin

The Generate Test Case Plugin aides java developers with writing @should style test units.

This project aims to make it easier to make TDD with a really cool and easy approach that consist in annotating interface method with desired behaviours like this:

```
public interface Person {  
  
    /**  
     *  
     * @return  
     * @should say hello, and nothing more that that  
     */  
    String sayHello();  
}
```

So with this plugin you could generate a test class for this interface like this one automatically:

```
import org.junit.Assert;  
import org.junit.Test;  
  
public class PersonTest {  
  
    /**  
     * @see Person#sayHello()  
     * @verifies say hello, and nothing more that that  
     */  
    @Test  
    public void sayHello_shouldSayHelloAndNothingMoreThatThat() throws Exception {  
        //TODO auto-generated  
        Assert.fail("Not yet implemented");  
    }  
}
```

And then test your implementation code like this

```
public void sayHello_shouldSayHelloAndNothingMoreThatThat() throws Exception {  
    assertThat(instance.sayHello(), is("hello world"));  
}
```

This way you can realize that for testing this behaviour you just wrote the should annotation in the sut (system under test) in a really descriptive way.

```
/**  
 *  
 * @return  
 * @should say hello, and nothing more that that  
 */  
String sayHello();
```

Auto-generated the test class and test method (using the plugin) and then tested the actual expected behaviour with (hamcrest style junit test):

```
assertThat(intance.sayHello(), is("hello world"));
```

Eclipse Version

What it Does

- Adds a menu item to the "right click" context menu on all .java files called *Generate Test Cases*

- A popup menu appears that allows you to choose which of the @should methods you want to generate
- If a similar ___Test class name exists, a new @Test method is added to the end of it
- If a similar ___Test class name does not exist, a new test class is added in the /test folder

How to Install the Plugin Into Eclipse

- Go to Help Software Updates Find / Install
- Choose "Search for new features to install"
- Click "Add new Remote Site"
- Enter a name
- Enter <http://resources.openmrs.org/eclipse/update/> as the URL
- Now choose that remote site and click "Finish"

How to Generate Test Cases

1. Set up the source and test directories:
 - Right click on your project root and choose properties
 - Next to "Generate Test Cases", set up the pairs: "src/api -> test/api" and "src/web -> test/web"
2. Open a java file and add an "@should not return a null object" annotation to a method
3. Right click in the java file and choose "generate test cases"
4. Fill in the new unit test method

How to Generate a Test Coverage Report

1. Open the package explorer
2. Right click on src/api and choose "Generate Test Coverage Report"
3. In the menu, go to Window -> Show View -> Other
4. Open the view for "Other --> Test Report"

Things to do

This is a list of [desired features and bugs](#) to be worked on.

You can download the last svn version of the plugin for eclipse to test some features currently not published through the eclipse update site: org.openmrs.org/generatetestcases

IntelliJ IDEA Version

You can download the plugin "GenerateTestCases" directly from the IDE. Go to Settings > Plugin enter "GenerateTestCases" hit enter and if not found there should appear a button saying "Search in Repositories" which you should click. Then select the plugin and press install.

An introduction to the plugin is here: <https://plugins.jetbrains.com/idea/plugin/5847-generatetestcases>

There you can see a Youtube link with a ten minute tutorial to use the plugin.