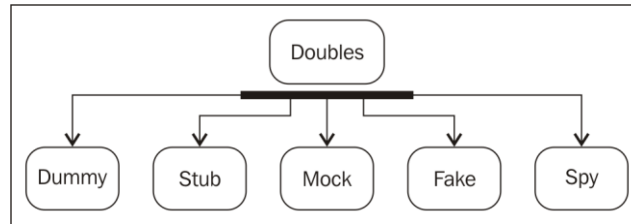


Chapter 1



Finished after 0.049 seconds

Runs: 1/1 ❌ Errors: 1 ❌ Failures: 0

com.packt.testdoubles.mock.StudentServiceTest [Runner: JUnit 4] (0.003 s)

- enrolls_students (0.003 s)

Failure Trace

```
java.lang.IllegalStateException: enrollToCourse was expected [1] times but actually invoked[2] times
    at com.packt.testdoubles.mock.StudentServiceMockObject.verify(StudentServiceMockObject.java:26)
    at com.packt.testdoubles.mock.StudentServiceTest.enrolls_students(StudentServiceTest.java:31)
```

Package Explorer Type Hierarchy JUnit

Finished after 0.041 seconds

Runs: 4/4 ❌ Errors: 0 ❌ Failures: 0

com.packt.testdoubles.fake.StudentDaoTest [Runner: JUnit 4] (0.003 s)

- when_new_and_existing_students_then_creates_and_updates_students (0.000 s)
- when_row_count_does_not_match_then_rollback_transaction (0.000 s)
- when_new_student_then_creates_student (0.001 s)
- when_existing_student_then_updates_student (0.002 s)

Chapter 2



Countries

+ Add - Delete

ISO	Name	Printable Name	ISO3	Number Code
AF	Afghanistan	Afghanistan	AFG	4
AN	Netherlands Antilles	Netherlands Antilles	ANT	530
AO	Angola	Angola	AGO	24
AQ	Antarctica	Antarctica	ART	0
AR	Argentina	Argentina	ARG	32

15 Page 1 of 16 Displaying 1 to 15 of 239 items

com.packt.mockito.stubbing.AjaxControllerTest [Runner: JUnit 4] (0.156 s)

- retrieves_empty_country_list (0.141 s)
- countryList_sortedBy_ISO_In_asc_order (0.012 s)
- countryList_sortedBy_ISO_In_desc_order (0.003 s)

Failure Trace

org.mockito.exceptions.verification.NoInteractionsWanted:
No interactions wanted here:
-> at com.packt.mockito.stubbing.AjaxControllerTest.countryList_sortedBy_ISO_In_asc ...
But found this interaction:
-> at com.packt.mockito.stubbing.RequestBuilder.build(RequestBuilder.java:9)

For your reference, here is the list of all invocations ([?] - means unverified).
1. [?]-> at com.packt.mockito.stubbing.RequestBuilder.build(RequestBuilder.java:9)
2. [?]-> at com.packt.mockito.stubbing.RequestBuilder.build(RequestBuilder.java:10)
3. [?]-> at com.packt.mockito.stubbing.RequestBuilder.build(RequestBuilder.java:11)
4. [?]-> at com.packt.mockito.stubbing.RequestBuilder.build(RequestBuilder.java:12)
5. [?]-> at com.packt.mockito.stubbing.RequestBuilder.build(RequestBuilder.java:13)

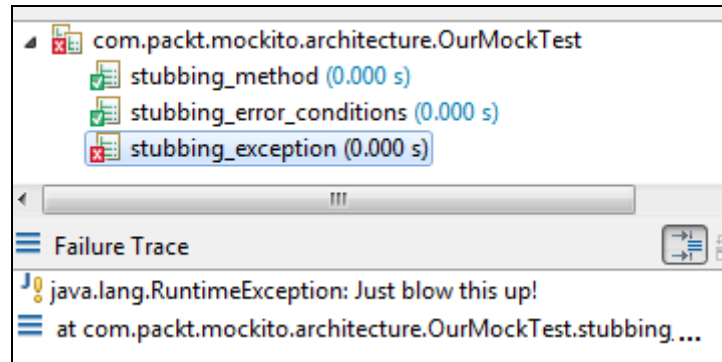
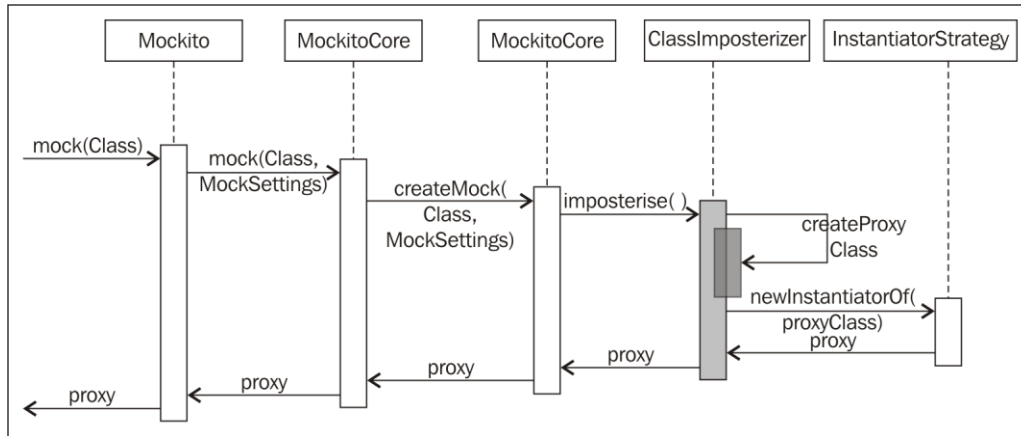
com.packt.mockito.stubbing.AjaxControllerTest [Runner: JUnit 4] (0.159 s)

- verify_zero_interaction (0.123 s)
- verify_nomore_interaction (0.022 s)
- countryList_sortedBy_ISO_In_asc_order (0.010 s)

Failure Trace

org.mockito.exceptions.verification.NoInteractionsWanted:
No interactions wanted here:
-> at com.packt.mockito.stubbing.AjaxControllerTest.verify_nomore_interaction
But found this interaction:
-> at com.packt.mockito.stubbing.AjaxControllerTest.verify_nomore_interaction

For your reference, here is the list of all invocations ([?] - means unverified).
1. -> at com.packt.mockito.stubbing.AjaxControllerTest.verify_nomore_interaction
2. [?]-> at com.packt.mockito.stubbing.AjaxControllerTest.verify_nomore_interaction



Chapter 3

com.packt.mockito.advanced.voidmethods.LoginControllerTest [Runner: JUnit 4] (0.205 s)

- when_valid_user_credentials_for_login_Then_routes_to_home_page (0.175 s)
- when_invalid_user_credentials_Then_routes_to_login_page (0.029 s)

This screenshot shows a test runner interface with a red progress bar at the top, indicating a failed test run. The test class is `com.packt.mockito.advanced.voidmethods.LoginControllerTest` and it contains two test methods, both of which failed.

com.packt.mockito.advanced.voidmethods.LoginControllerTest [Runner: JUnit 4] (0.210 s)

- when_valid_user_credentials_for_login_Then_routes_to_home_page (0.201 s)
- when_invalid_user_credentials_Then_routes_to_login_page (0.009 s)

This screenshot shows the same test runner interface with a green progress bar, indicating a successful test run. Both test methods in `com.packt.mockito.advanced.voidmethods.LoginControllerTest` passed.

Finished after 0.193 seconds

Runs: 2/2 Errors: 0 Failures: 0

com.packt.mockito.advanced.voidmethods.LoginControllerTest [Runner: JUnit 4]

- when_valid_user_credentials_for_login_Then_routes_to_home_page (0.160 s)
- when_invalid_user_credentials_Then_routes_to_login_page (0.003 s)

This screenshot shows a summary of the test run, indicating it finished after 0.193 seconds with 2/2 runs, 0 errors, and 0 failures. Below the summary, the test runner shows the same two test methods from `com.packt.mockito.advanced.voidmethods.LoginControllerTest` as successful.

Runs: 1/1 Errors: 1 Failures: 0

com.packt.mockito.advanced.voidmethods.DemoControllerTest [Runner: JUnit 4] (0.173 s)

- when_subsystem_throws_exception_Then_routes_to_error_page_ (0.173 s)

Failure Trace

```
java.lang.IllegalStateException: LDAP error
at com.packt.mockito.advanced.voidmethods.DemoController.doGet(DemoController.java:31)
```

This screenshot shows a test runner interface with a red progress bar, indicating a failed test run. The test class is `com.packt.mockito.advanced.voidmethods.DemoControllerTest` and it contains one test method that failed. A failure trace is visible below the test list, showing an `IllegalStateException: LDAP error` at line 31 of `DemoController.java`.

Runs: 1/1 Errors: 0 Failures: 0

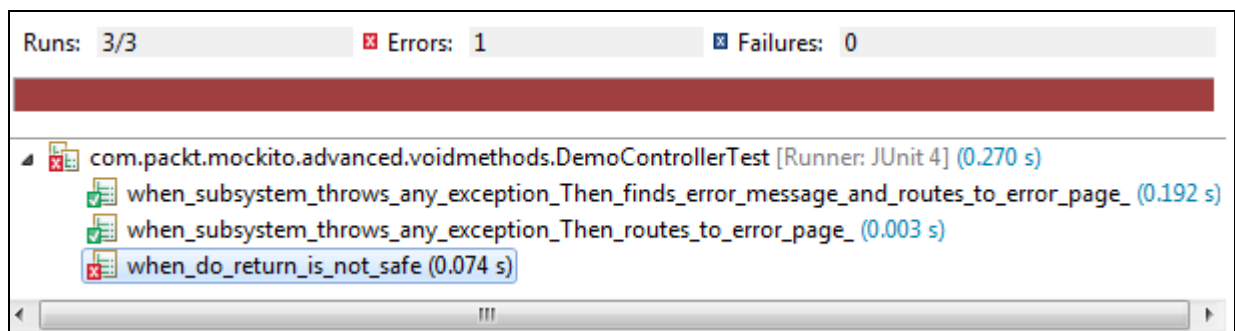
com.packt.mockito.advanced.voidmethods.DemoControllerTest

- when_subsystem_throws_exception_Then_routes_to_error_page_ (0.183 s)

This screenshot shows the same test runner interface with a green progress bar, indicating a successful test run. The test method `when_subsystem_throws_exception_Then_routes_to_error_page_` in `com.packt.mockito.advanced.voidmethods.DemoControllerTest` passed.

```
    } catch (Exception ex) {  
  
        String errorMsg = ex.getMessage();  
        Error errorDto = new Error();  
        errorHandler.mapTo(errorDto);  
  
        if(errorDto.getErrorCode() != null){  
            errorMsg = messageRepository.lookup(errorDto.getErrorCode());  
        }  
  
        req.setAttribute("error", errorMsg);  
        req.getRequestDispatcher("error.jsp").forward(req, res);  
    }  
}
```

```
String errorMsg = ex.getMessage();  
Error errorDto = new Error();  
errorDto.setTrace(ex.getStackTrace());  
errorHandler.mapTo(errorDto);  
  
if(errorDto.getErrorCode() != null){  
    errorMsg = messageRepository.lookup(errorDto.getErrorCode());  
}  
req.setAttribute("error", errorMsg);  
req.getRequestDispatcher("error.jsp").forward(req, res);
```



```
Failure Trace
org.mockito.exceptions.misusing.UnfinishedStubbingException:
  Unfinished stubbing detected here:
  -> at com.packt.mockito.advanced.voidmethods.DemoControllerTest
      when_do_return_is_not_safe(DemoControllerTest.java:79)

E.g. thenReturn() may be missing.
Examples of correct stubbing:
  when(mock.isOk()).thenReturn(true);
  when(mock.isOk()).thenThrow(exception);
  doThrow(exception).when(mock).someVoidMethod();
```

```
@Test
public void when_captures_collections() throws Exception {
  ArgumentCaptor<List<String>> captor
  = ArgumentCaptor.forClass(List.class);
}
}

Type mismatch: cannot convert from ArgumentCaptor<List> to ArgumentCaptor<List<String>>
1 quick fix available:
  Change type of 'captor' to 'ArgumentCaptor<List>'

Press 'F2' for focus
```

```
Failure Trace
org.mockito.exceptions.verificatio.VerificationInOrderFailure:
  Verification in order failure
  Wanted but not invoked:
  request.getServletPath();
  -> at com.packt.mockito.advanced.voidmethods.DemoControllerTest.when_inorder
```

```
com.packt.mockito.advanced.voidmethods.DemoControllerTest [Runner: JUnit 4] (0.301 s)
  when_doReturn_fails (0.063 s)
  when_subsystem_throws_any_exception_Then_routes_to_error_page_ (0.004 s)

Failure Trace
java.lang.IndexOutOfBoundsException: Index: 0, Size: 0
  at java.util.ArrayList.rangeCheck(Unknown Source)
  at java.util.ArrayList.get(Unknown Source)
  at com.packt.mockito.advanced.voidmethods.DemoControllerTest.when_doReturn_fails
```

☰ Failure Trace

⚠ org.mockito.exceptions.base.MockitoException:

Cannot instantiate a @Spy for 'errorHandler' field.

☰ You haven't provided the instance for spying at field declaration so I tried to construct the instance. However, I failed because: the type 'ErrorHandler' is an interface.

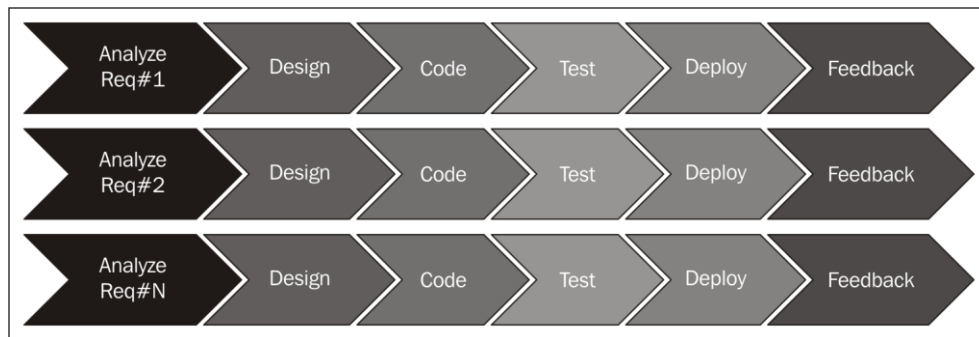
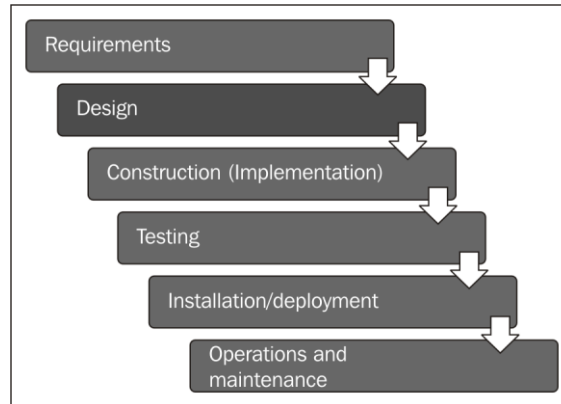
Examples of correct usage of @Spy:

```
@Spy List mock = new LinkedList();
```

```
@Spy Foo foo; //only if Foo has parameterless constructor
```

```
//also, don't forget about MockitoAnnotations.initMocks();
```


Chapter 4



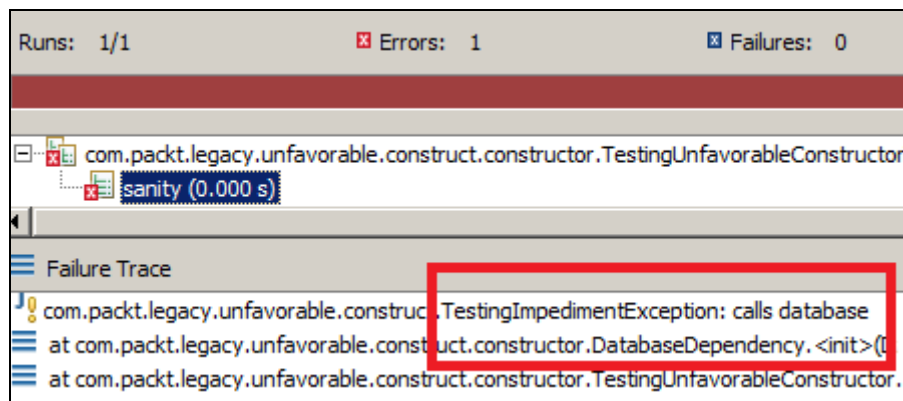
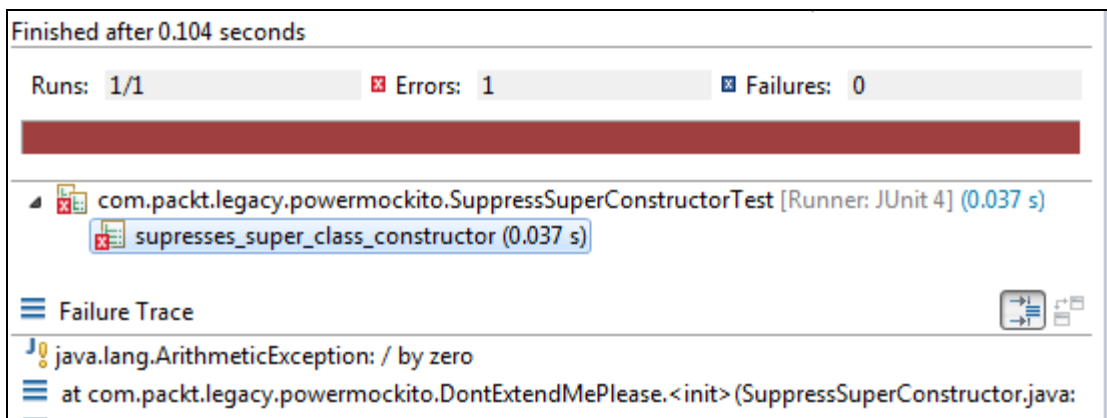
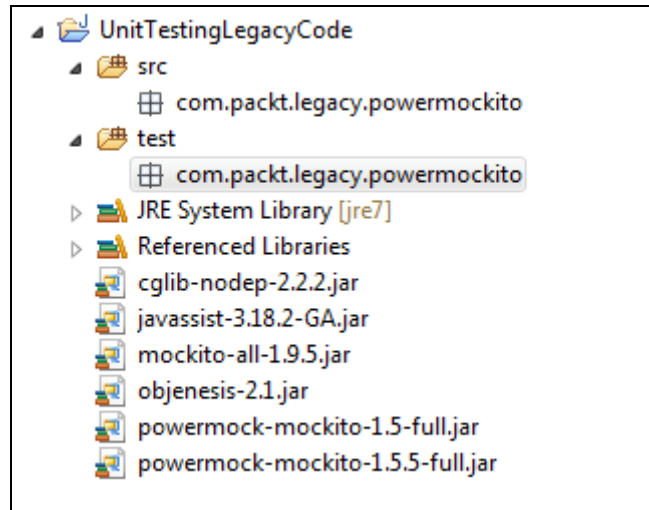
Package Explorer Type Hierarchy **JUnit**

Finished after 0.728 seconds

Runs: 1/1 Errors: 0 Failures: 0

com.packt.trading.StockBrokerBDDTest [Runner: JUnit 4] (0.002 s)
 should_sell_a_stock_when_price_increases_by_ten_percent (0.002 s)

Chapter 5



Runs: 1/1 ❌ Errors: 1 ❌ Failures: 0

com.packt.legacy.unfavorable.construct.instantiate.VariableInitializationTest
sanity (0.001 s)

Failure Trace

```
com.packt.legacy.unfavorable.construct.TestingImpedimentException: calls database
at com.packt.legacy.unfavorable.construct.constructor.DatabaseDependency.<init>
at com.packt.legacy.unfavorable.construct.instantiate.VariableInitialization.<init>
at com.packt.legacy.unfavorable.construct.instantiate.VariableInitializationTest.setUp
```

Runs: 1/1 ❌ Errors: 1 ❌ Failures: 0

com.packt.legacy.unfavorable.construct.privates.PrivateMethodTest [Runner: JUnit 4] (0.004 s)
validate (0.004 s)

Failure Trace

```
com.packt.legacy.unfavorable.construct.TestingImpedimentException: GUI objects need manual intervention
at com.packt.legacy.unfavorable.construct.constructor.GraphicalInterface.showMessage(GraphicalInterface.java:16)
at com.packt.legacy.unfavorable.construct.privates.PrivateMethod.showError(PrivateMethod.java:16)
```

com.packt.legacy.unfavorable.construct.finals.FinalMethodDependencyTest
testSomething (0.175 s)

Failure Trace

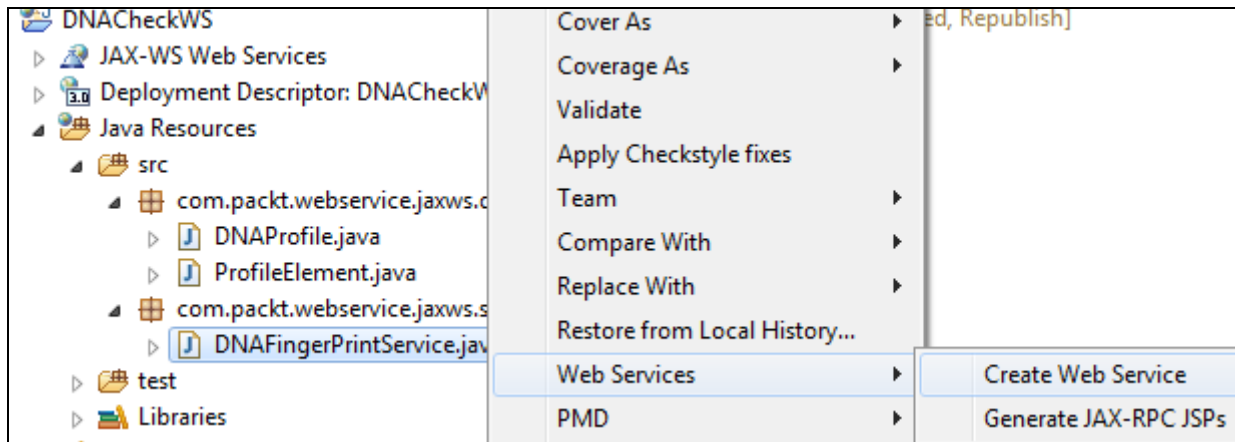
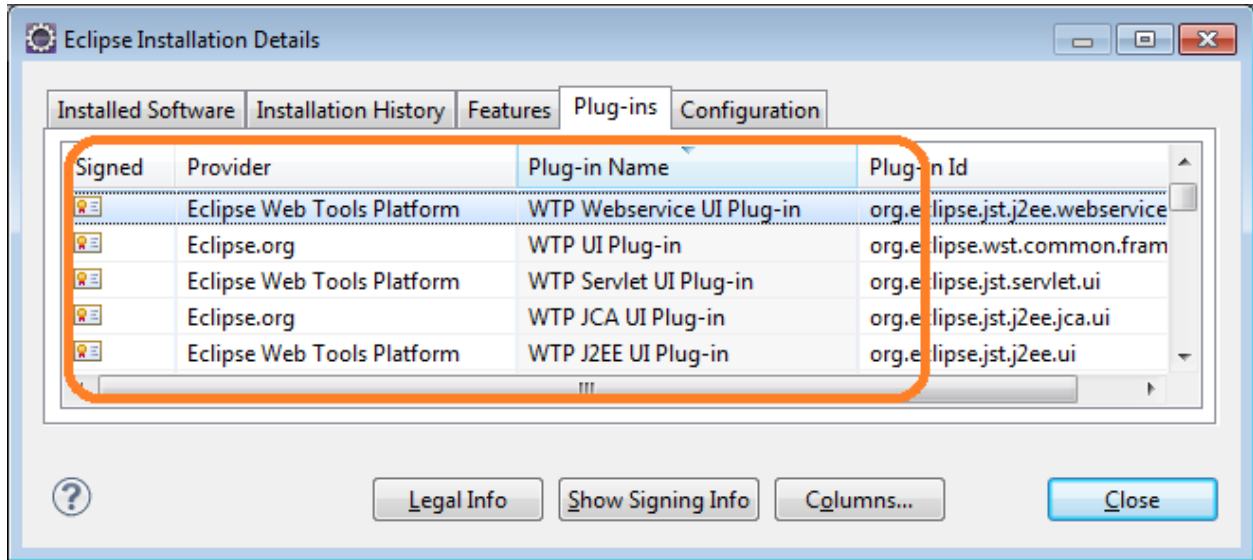
```
org.mockito.exceptions.misusing.UnfinishedStubbingException:
  Unfinished stubbing detected here:
  -> at com.packt.legacy.unfavorable.construct.finals.FinalMethodDependencyTest.<init>()
        doThrow(exception).when(mock).someVoidMethod();
  Hints:
  1. missing thenReturn()
  2. you are trying to stub a final method, you naughty developer!
```

com.packt.legacy.unfavorable.construct.finals.FinalClassDependencyTest
testMe (0.044 s)

Failure Trace

org.mockito.exceptions.base.MockitoException:
Cannot mock/spy class com.packt.legacy.unfavorable.construct.finals.FinalDependencyClass
Mockito cannot mock/spy following:
- final classes
- anonymous classes
- primitive types
at org.mockito.internal.runners.JUnit45AndHigherRunnerImpl\$1.withBefore

Chapter 6



Web Service

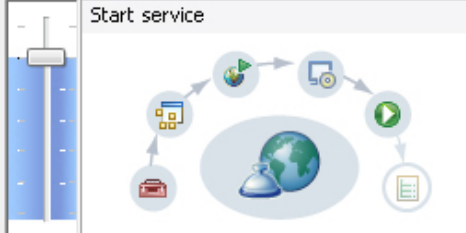
Web Services

Select a service implementation or definition and move the sliders to set the level of service and client generation.

Web service type: Bottom up Java bean Web Service

Service implementation: com.packt.webservice.jaxws.service.DNAFingerPrintService Browse...

Start service

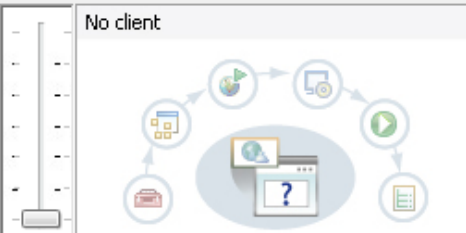


Configuration:

- [Server runtime: Tomcat v7.0 Server](#)
- [Web service runtime: Apache Axis](#) ← Axis,
- [Service project: DNACheckWS](#)

Client type: Java Proxy

No client



Configuration: No client generation.

WSDL file: DNAFingerPrintService.wsdl

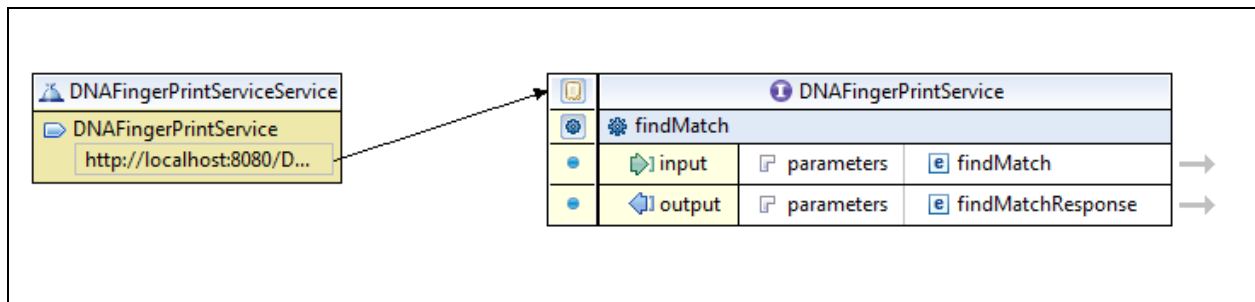
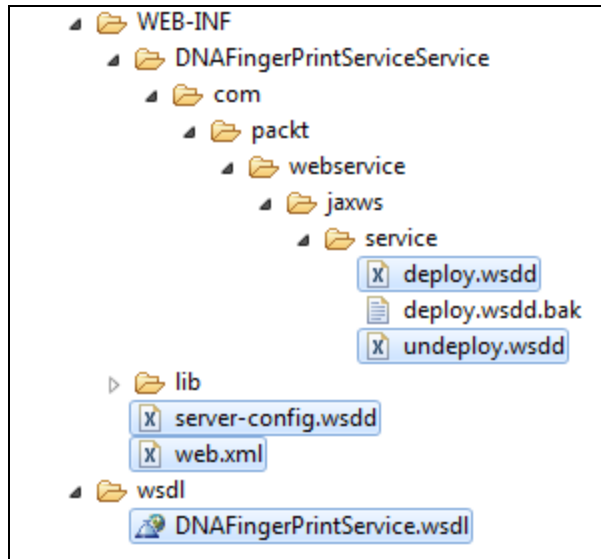
Methods

- findMatch(com.packt.webservice.jaxws.dto.DNAProfile)

Select All Deselect All

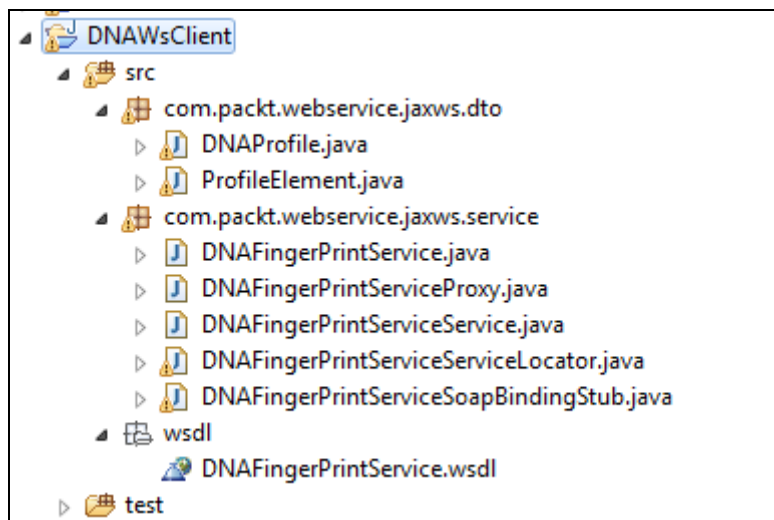
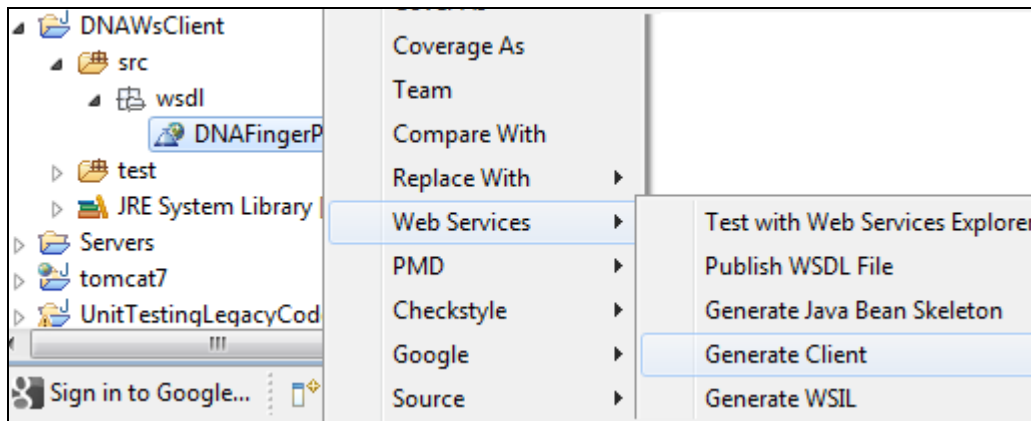
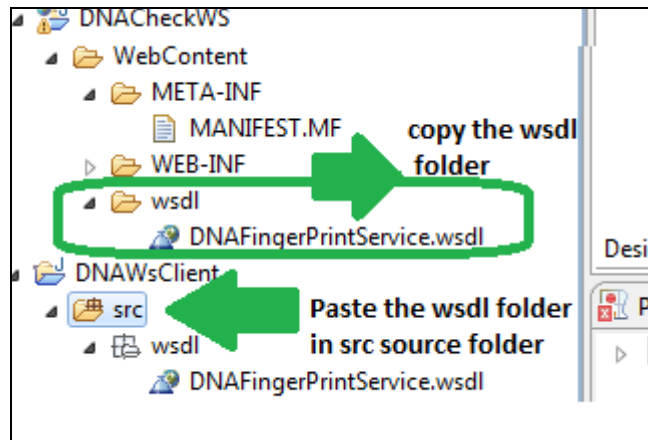
Style and use

- document/literal (wrapped)
- document/literal
- RPC/encoded



```

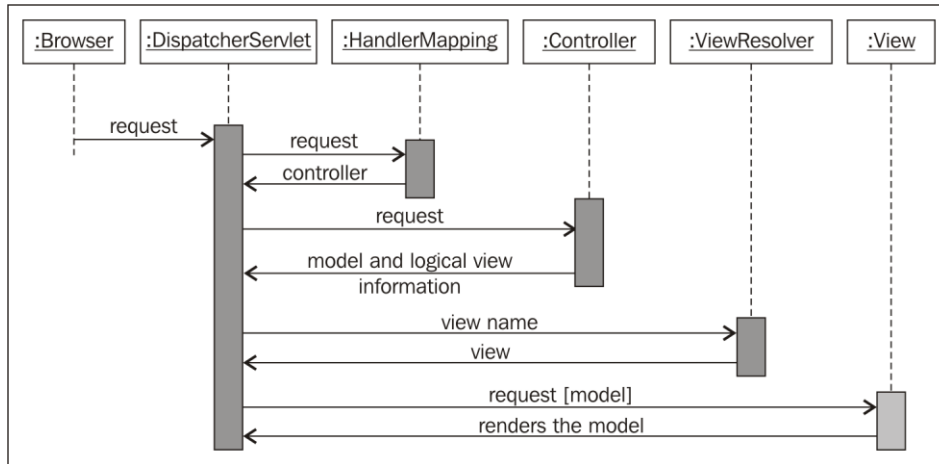
<wsdl:definitions targetNamespace="http://service.jaxws.webservice.packt.com"
  xmlns:impl="http://service.jaxws.webservice.packt.com"
  xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/"
  <!--
    WSDL created by Apache Axis version: 1.4
    Built on Apr 22, 2006 (06:55:48 PDT)
  -->
  <wsdl:types>
    + <schema elementFormDefault="qualified" targetNamespace="http://service.jaxws.webservice.packt.com"
    + <schema elementFormDefault="qualified" targetNamespace="http://dto.jaxws.webservice.packt.com"
  </wsdl:types>
  + <wsdl:message name="findMatchRequest">
  + <wsdl:message name="findMatchResponse">
  + <wsdl:portType name="DNAFingerPrintService">
  + <wsdl:binding name="DNAFingerPrintServiceSoapBinding" type="impl:DNAFingerPrintService">
  - <wsdl:service name="DNAFingerPrintServiceService">
    - <wsdl:port binding="impl:DNAFingerPrintServiceSoapBinding" name="DNAFingerPrintService">
      <wsdlsoap:address location="http://localhost:8080/DNACheckWS/services/DNAFingerPrintService" />
    </wsdl:port>
  </wsdl:service>
</wsdl:definitions>
  
```



Finished after 1.135 seconds

Runs: 1/1 ❌ Errors: 0 ❌ Failures: 0

- com.packt.webservice.jaxws.client.DNAFingerPrintWsInvokerIntegrationTest [Runner: JUnit 4] (1.125 s)
 - finds_DNA_match (1.125 s)



WEB-INF

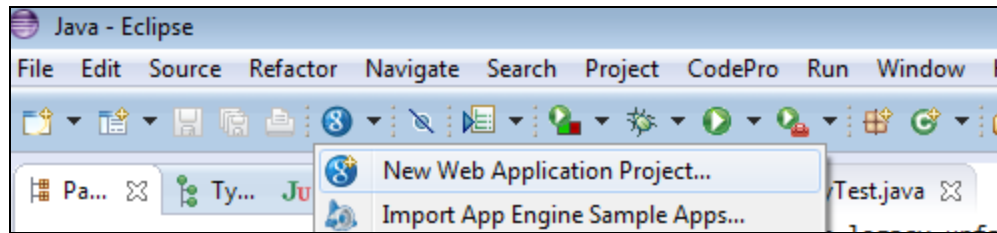
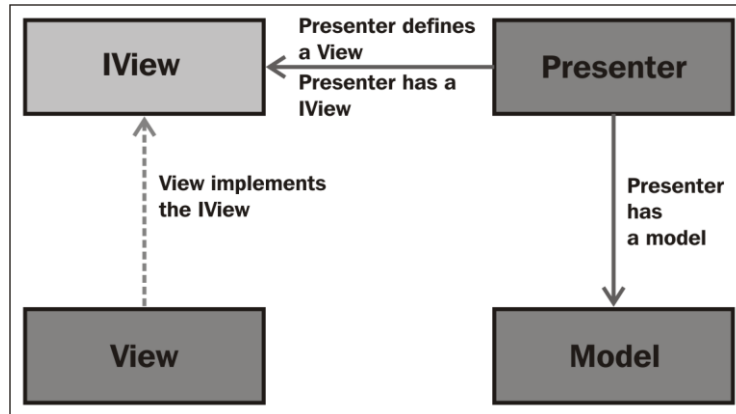
- lib
 - com.springsource.org.codehaus.jackson.mapper-1.4.2.jar
 - com.springsource.org.codehaus.jackson-1.4.2.jar
 - commons-logging.jar
 - org.springframework.aop-3.1.1.RELEASE.jar
 - org.springframework.asm-3.1.1.RELEASE.jar
 - org.springframework.aspects-3.1.1.RELEASE.jar
 - org.springframework.beans-3.1.1.RELEASE.jar
 - org.springframework.context.support-3.1.1.RELEASE.jar
 - org.springframework.context-3.1.1.RELEASE.jar
 - org.springframework.core-3.1.1.RELEASE.jar
 - org.springframework.expression-3.1.1.RELEASE.jar
 - org.springframework.web.servlet-3.1.1.RELEASE.jar
 - org.springframework.web-3.1.1.RELEASE.jar
 - servlet-api-2.5-6.1.3.jar
 - rest-servlet.xml
 - web.xml

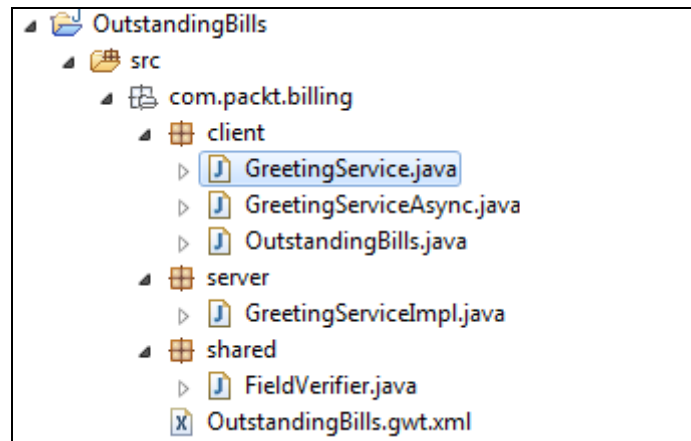
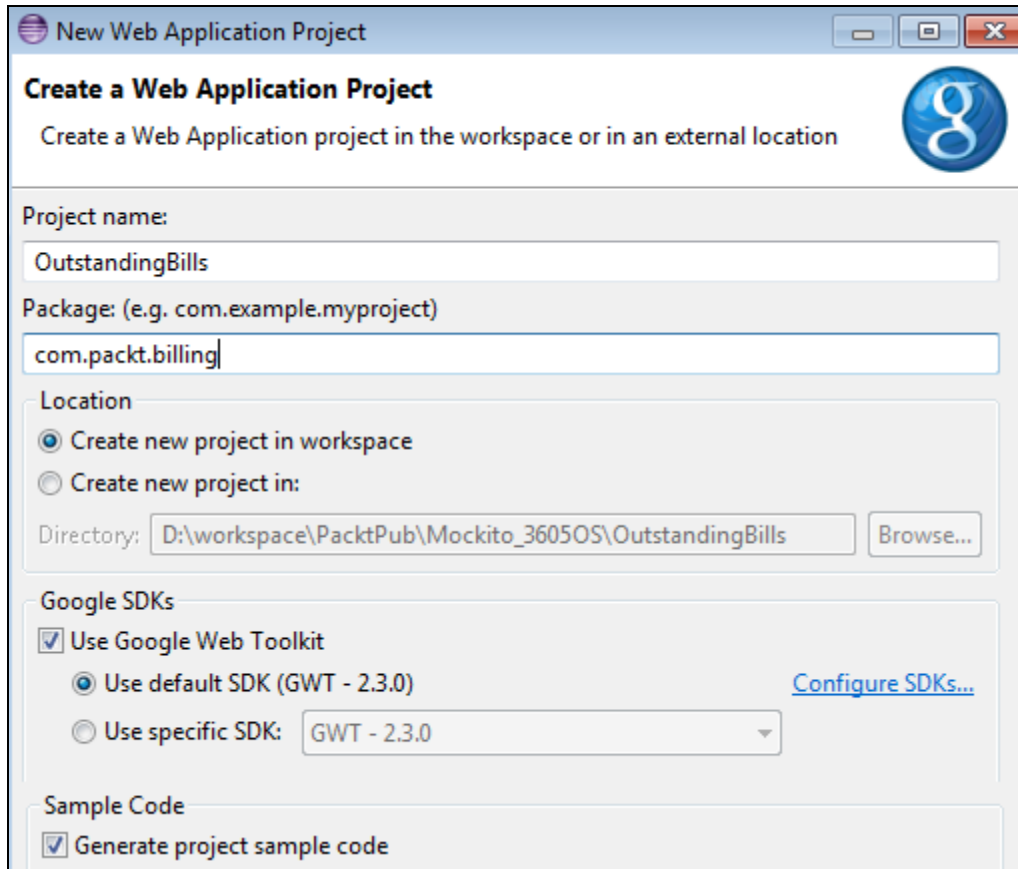
```
localhost:8080/RESTfulStudentWS/college/students/
[{"name":"Subodh Chavan","className":"XII","emailId":"cs@yahumail.com","roleNumber":"3","id":"3"},
{"name":"John Paul","className":"XII","emailId":"john.p@gmail.com","roleNumber":"7","id":"7"},
{"name":"Leo Anthony","className":"XII","emailId":"leo.p@gmail.com","roleNumber":"101","id":"101"},
{"name":"Sujoy Acharya","className":"X","emailId":"sujoy@gmail.com","roleNumber":"100","id":"100"}]
```

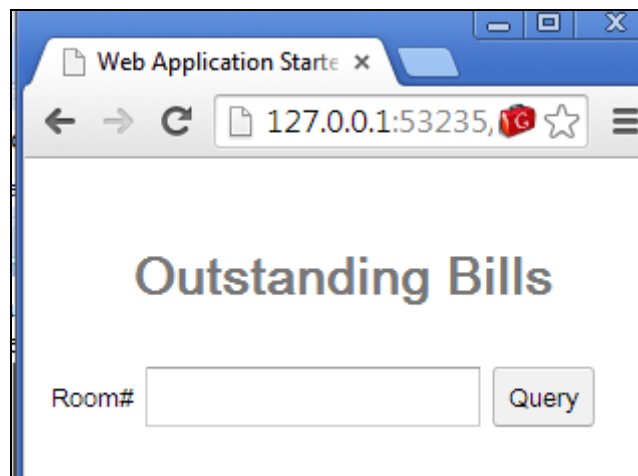
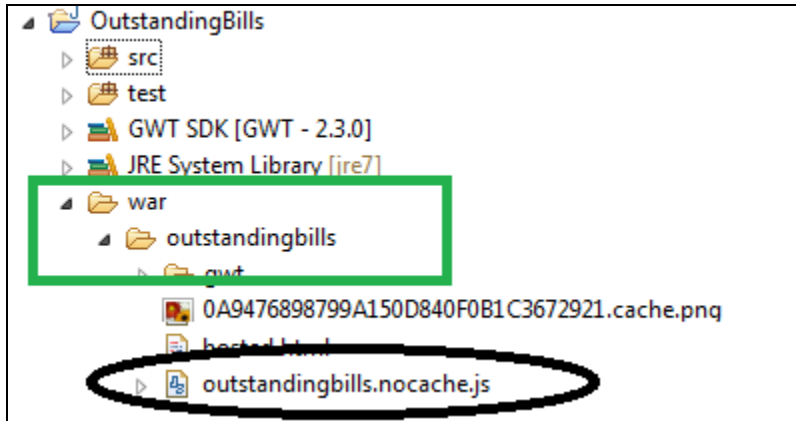
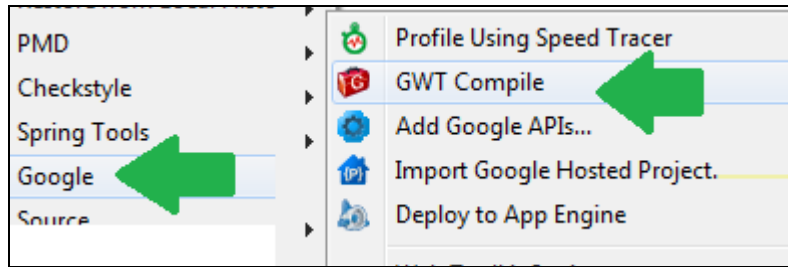
```
localhost:8080/RESTfulStudentWS/college/students/7
{"name":"John Paul","className":"XII","emailId":"john.p@gmail.com","roleNumber":"7"}
```

```
localhost:8080/RESTfulStudentWS/college/students/1000
```

Chapter 7















Desc# Accomodation charge for room#4 and payable amount=592.0
Due# 592.0
Pay amount#

Finished after 0.15 seconds

Runs: 1/1 ✘ Errors: 1 ✘ Failures: 0

✘  com.packt.billing.client.event.PaymentButtonClickHandlerTest [Runner: JUnit 4] (0.130 s)
 ✘  sanity (0.130 s)

 Failure Trace  

 java.lang.UnsatisfiedLinkError: com.google.gwt.user.client.Window.alert(Ljava/lang/String;)V
 at com.google.gwt.user.client.Window.alert(Native Method)
 at com.packt.billing.client.event.PaymentButtonClickHandlerTest.sanity