

Progetto di Ingegneria del software

Anno accademico 2018/2019



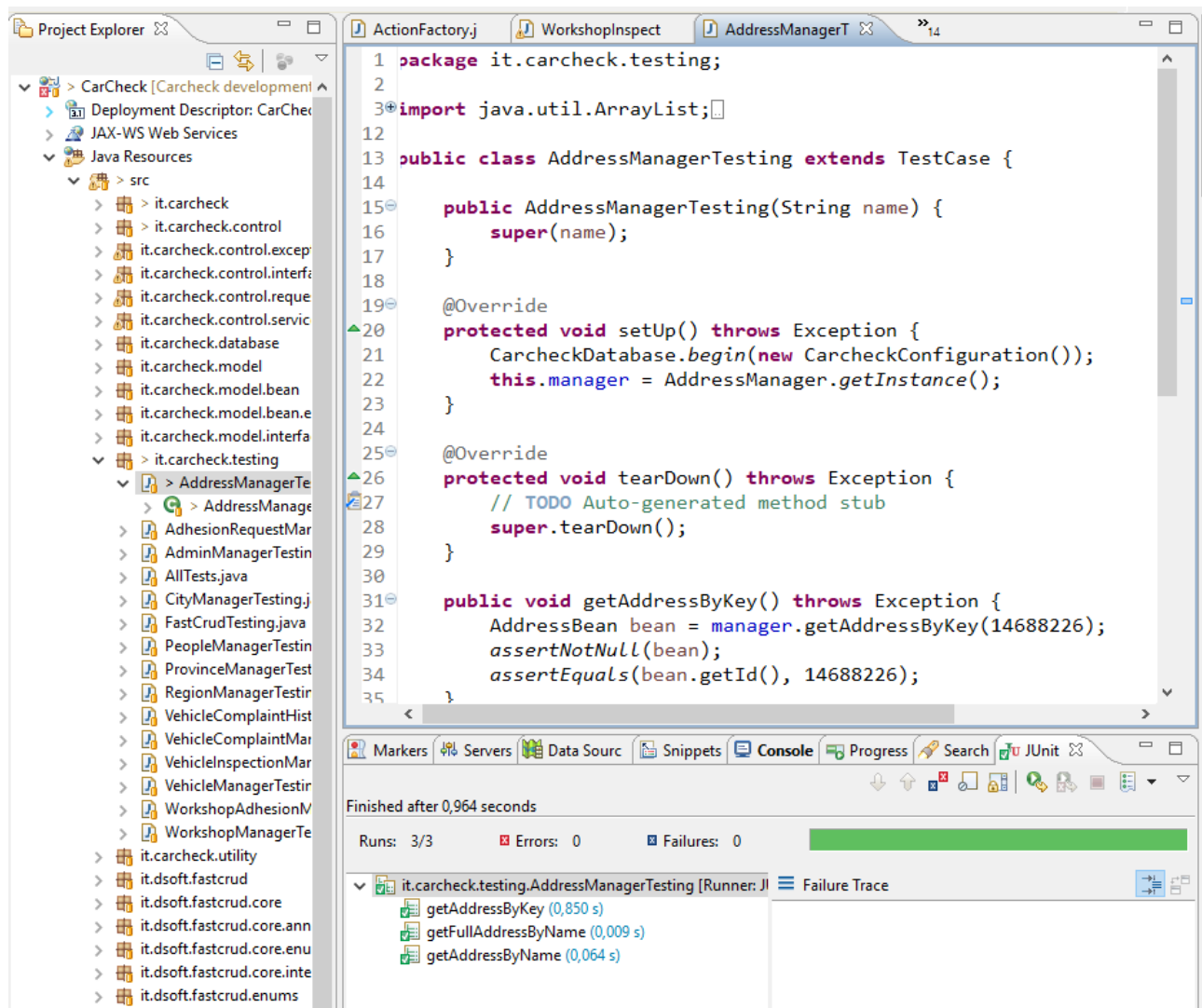
Carcheck



Tabella Componenti		
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1. Test di unità

1.1 AddressManager



The screenshot displays an IDE with the following components:

- Project Explorer:** Shows the project structure for 'CarCheck'. The 'src' directory is expanded, showing various packages. The 'it.carcheck.testing' package is selected, containing 'AddressManagerTesting.java'.
- Editor:** Displays the code for 'AddressManagerTesting.java'. The code is as follows:

```
1 package it.carcheck.testing;
2
3 import java.util.ArrayList;
4
12
13 public class AddressManagerTesting extends TestCase {
14
15     public AddressManagerTesting(String name) {
16         super(name);
17     }
18
19     @Override
20     protected void setUp() throws Exception {
21         CarcheckDatabase.begin(new CarcheckConfiguration());
22         this.manager = AddressManager.getInstance();
23     }
24
25     @Override
26     protected void tearDown() throws Exception {
27         // TODO Auto-generated method stub
28         super.tearDown();
29     }
30
31     public void getAddressByKey() throws Exception {
32         AddressBean bean = manager.getAddressByKey(14688226);
33         assertNotNull(bean);
34         assertEquals(bean.getId(), 14688226);
35     }
36 }
```
- Console:** Shows the test results. The test 'it.carcheck.testing.AddressManagerTesting [Runner: JUnit]' passed. The console output is:

```
Finished after 0,964 seconds
Runs: 3/3      Errors: 0      Failures: 0
it.carcheck.testing.AddressManagerTesting [Runner: JUnit]
  getAddressByKey (0,850 s)
  getFullAddressByName (0,009 s)
  getAddressByName (0,064 s)
```

1.2 AdhesionRequestManager

The screenshot displays an IDE with the following components:

- Project Explorer:** Shows the project structure for 'CarCheck [Carcheck development]'. The 'src' directory contains packages like 'it.carcheck', 'it.carcheck.control', 'it.carcheck.model', and 'it.carcheck.testing'. The 'it.carcheck.testing' package is expanded, showing 'AdhesionRequestManagerTesting'.
- Code Editor:** Displays the source code of the 'AdhesionRequestManagerTesting' class. The code is as follows:

```
17 public class AdhesionRequestManagerTesting extends TestCase {
18
19     public AdhesionRequestManagerTesting(String name) {
20         super(name);
21     }
22
23     @Override
24     protected void setUp() throws Exception {
25         CarcheckDatabase.begin(new CarcheckConfiguration());
26         this.manager = AdhesionRequestManager.getInstance();
27     }
28
29     @Override
30     protected void tearDown() throws Exception {
31         // TODO Auto-generated method stub
32         super.tearDown();
33     }
34
35     public void doSetState() throws Exception {
36         ArrayList<AdhesionRequestBean> beans = manager.doFind("s
37         assertNotNull(beans);
38
39         AdhesionRequestBean bean = beans.get(0);
40         manager.doSetState(bean, 1);
41
42         ArrayList<AdhesionRequestBean> resultBeans = manager.doF
43         assertNotNull(resultBeans);
```
- JUnit Console:** Shows the test results. The tests passed successfully. The output is:

```
Finished after 0,801 seconds
Runs: 6/6      Errors: 0      Failures: 0
it.carcheck.testing.AdhesionRequestManagerTesting [
  doSetState (0,385 s)
  doRetrieveByAdminId (0,000 s)
  doRetrieveByCode (0,000 s)
  doApproveRequest (0,368 s)
  doRejectRequest (0,000 s)
  doSetRequestAppointment (0,016 s)
```

1.3 AdminManager

The screenshot displays an IDE with the following components:

- Project Explorer:** Shows the project structure for 'CarCheck'. The 'src' directory contains packages like 'it.carcheck', 'it.carcheck.control', 'it.carcheck.model', and 'it.carcheck.testing'. The 'it.carcheck.testing' package is expanded, showing 'AdminManagerTest'.
- Code Editor:** Displays the 'AdminManagerTest.java' file. The code includes three methods:

```
34 public void doLogin() throws Exception {  
35     AdminBean bean = manager.doLogin("kekko@live.it", "newP  
36     assertNotNull(bean);  
37     assertEquals(bean.getEmail(), "kekko@live.it");  
38     assertEquals(bean.getPassword(), PasswordHasher.Encrypt(  
39 }  
40  
41 public void doChangePassword() throws Exception {  
42     ArrayList<AdminBean> admins = manager.doFind("select * f  
43     assertNotNull(admins);  
44  
45     AdminBean admin = admins.get(0);  
46     assertNotNull(admin);  
47  
48     manager.doChangePassword(admin, "newPass");  
49  
50     ArrayList<AdminBean> finalAdmins = manager.doFind("selec  
51     assertNotNull(finalAdmins);  
52  
53     AdminBean finalAdmin = finalAdmins.get(0);  
54     assertNotSame(admin.getPassword(), finalAdmin.getPasswor  
55 }  
56  
57 public void doRetrieveByEmail() throws Exception {
```
- JUnit Runner:** Shows the test results for 'it.carcheck.testing.AdminManagerTesting'. The tests passed successfully, with a total time of 0.814 seconds.

Test Method	Time (s)
doLogin	0.347
doChangePassword	0.016
doRetrieveByEmail	0.004
doAddAdmin	0.343
doRemoveAdmin	0.000
doSetAdminPermission	0.016
doRetrieveById	0.000
doRetrieveAll	0.000

1.4 CityManager

The screenshot displays an IDE with the following components:

- Project Explorer:** Shows the project structure for 'CarCheck development'. The 'src' directory contains several packages, including 'it.carcheck.testing'. The 'CityManagerTesting' class is selected.
- Code Editor:** Displays the source code of the 'CityManagerTesting' class. The code is as follows:

```
16 public class CityManagerTesting extends TestCase {
17
18     public CityManagerTesting(String name) {
19         super(name);
20     }
21
22     @Override
23     protected void setUp() throws Exception {
24         CarcheckDatabase.begin(new CarcheckConfiguration());
25         this.manager = new CityManager();
26     }
27
28     @Override
29     protected void tearDown() throws Exception {
30         // TODO Auto-generated method stub
31         super.tearDown();
32     }
33
34     public void getCityByKey() throws Exception {
35         CityBean city = manager.getCityByKey("063065");
36         assertNotNull(city);
37         assertEquals(city.getIstat(), "063065");
38     }
39 }
```
- JUnit Runner:** Shows the test results for the 'CityManagerTesting' class. The test suite is 'it.carcheck.testing.CityManagerTesting [Runner: JUnit]'. The results are as follows:

Test Method	Duration (s)
getCityByKey	0,348 s
getCityByName	0,000 s
getCityFromNameAndCap	0,016 s
getCitiesFromCap	0,000 s
getCitiesFromProvince	0,000 s
getCitiesFromRegion	0,015 s
getCitiesFromProvinceCode	0,000 s

1.5 FastCrud

The screenshot displays an IDE with the following components:

- Project Explorer:** Shows the project structure for 'CarCheck [Carcheck development]'. The 'src' directory contains packages like 'it.carcheck', 'it.carcheck.control', 'it.carcheck.model', and 'it.carcheck.testing'. The 'it.carcheck.testing' package is expanded, showing 'FastCrudTesting.java'.
- Code Editor:** Displays the source code of 'FastCrudTesting.java'. The code is as follows:

```
13 public class FastCrudTesting extends TestCase {
14
15     public FastCrudTesting(String name) {
16         super(name);
17     }
18
19     @Override
20     protected void setUp() throws Exception {
21         DatabaseConfiguration configuration = new DatabaseConfigu
22         this.database = new FastCrud(configuration);
23     }
24
25     @Override
26     protected void tearDown() throws Exception {
27         // TODO Auto-generated method stub
28         super.tearDown();
29     }
30
31     public void testCreate() throws Exception {
32         AdminBean adminBean = new AdminBean();
33         adminBean.setEmail("test@gmail.com");
34         adminBean.setName("Testing");
35         adminBean.setSurname("Testing");
36         adminBean.setPassword("XXXXXX");
```
- JUnit Runner:** Shows the test results for 'it.carcheck.testing.FastCrudTesting [Runner: JUnit 4]'. The tests passed successfully:
 - testCreate (0,354 s)
 - testRead (0,015 s)
 - testUpdate (0,016 s)
 - testDelete (0,000 s)

1.6 PeopleManager

The screenshot displays an IDE with the following components:

- Project Explorer:** Shows the project structure for 'CarCheck [Carcheck development]'. The 'src' folder is expanded, showing packages like 'it.carcheck', 'it.carcheck.control', 'it.carcheck.model', and 'it.carcheck.testing'. The 'PeopleManagerTesting' class is selected.
- Code Editor:** Displays the source code of the 'PeopleManagerTesting' class, which extends 'TestCase'. The code includes:
 - Constructor: `public PeopleManagerTesting(String name) { super(name); }`
 - `@Override` method `setUp()`: `protected void setUp() throws Exception { CarcheckDatabase.begin(new CarcheckConfiguration()); this.manager = PeopleManager.getInstance(); }`
 - `@Override` method `tearDown()`: `protected void tearDown() throws Exception { // TODO Auto-generated method stub super.tearDown(); }`
 - Test method `doRetrieveByFiscalCode()`: `public void doRetrieveByFiscalCode() throws Exception { PeopleBean bean = manager.doRetrieveByFiscalCode("CPRFNC9"); assertNotNull(bean); assertEquals(bean.getFiscalCode(), "CPRFNC96M14C129F"); }`
 - Static method `Test suite()` (partially visible).
- JUnit Runner:** Shows the test results for 'it.carcheck.testing.PeopleManagerTesting'. The test 'doRetrieveByFiscalCode' passed successfully in 0.386 seconds. The summary indicates 'Finished after 0.414 seconds', 'Runs: 1/1', 'Errors: 0', and 'Failures: 0'.

1.7 ProvinceManager

The screenshot displays an IDE with the following components:

- Project Explorer:** Shows the project structure for 'CarCheck [Carcheck development]'. The 'src' directory contains packages like 'it.carcheck', 'it.carcheck.control', 'it.carcheck.model', and 'it.carcheck.testing'. The 'it.carcheck.testing' package is expanded, showing 'ProvinceManagerTesting'.
- Code Editor:** Displays the 'ProvinceManagerTesting' class, which extends 'TestCase'. It includes a constructor, a 'setUp()' method that initializes 'CarcheckDatabase' and 'ProvinceManager', and a 'tearDown()' method. The 'getProvinceByKey()' method is also shown, which calls 'manager.getProvinceByKey("MI")' and asserts the result.
- JUnit Runner:** Shows the test results for 'it.carcheck.testing.ProvinceManagerTesting'. The tests passed, with a total time of 0.416 seconds. The results are as follows:

Test Method	Time (s)
getProvinceByKey	0.354
getProvinceByName	0.000
getProvinceByCityName	0.000
getProvinceByCity	0.016
getProvincesFromRegion	0.015
getProvincesByRegionCode	0.000

1.8 RegionManager

The screenshot displays an IDE with the following components:

- Project Explorer:** Shows the project structure for 'CarCheck'. The 'src' directory is expanded, showing various packages including 'it.carcheck.testing'. The 'RegionManagerTesting' class is selected.
- Code Editor:** Displays the source code of the 'RegionManagerTesting' class. The code includes:

```
19
20 public RegionManagerTesting(String name) {
21     super(name);
22 }
23
24 @Override
25 protected void setUp() throws Exception {
26     CarcheckDatabase.begin(new CarcheckConfiguration());
27     this.regionManager = new RegionManager();
28 }
29
30 @Override
31 protected void tearDown() throws Exception {
32     // TODO Auto-generated method stub
33     super.tearDown();
34 }
35
36 public void getRegionByKey() throws Exception {
37     RegionBean bean = this.regionManager.getRegionByKey(1);
38     assertNotNull(bean);
39     assertEquals(bean.getId(), 1);
40 }
41
42 public void getRegionFromCityName() throws Exception {
43     RegionBean bean = this.regionManager.getRegionFromCityName("...
```
- JUnit Runner:** Shows the test results for the 'RegionManagerTesting' class. The tests passed, and the total execution time was 0.425 seconds. The results are summarized as follows:

Test Method	Execution Time (s)
getRegionByKey	0.339
getRegionFromCityName	0.016
getRegionFromCity	0.015
getRegionFromProvince	0.007
getAllRegions	0.000

1.9 VehicleComplaintHistoryManager

The screenshot displays an IDE with the following components:

- Project Explorer:** Shows the project structure for 'CarCheck [Carcheck development]'. The 'src' directory is expanded, showing packages like 'it.carcheck', 'it.carcheck.control', 'it.carcheck.model', and 'it.carcheck.testing'. The 'VehicleComplaintHistoryManagerTest' class is selected under 'it.carcheck.testing'.
- Editor:** Displays the source code of the 'VehicleComplaintHistoryManager' class. The code is as follows:

```
11 public class VehicleComplaintHistoryManager implements IVehicleCo
12
13     public static VehicleComplaintHistoryManager getInstance() {
14         if(instance == null)
15             instance = new VehicleComplaintHistoryManager();
16
17         return instance;
18     }
19
20     private VehicleComplaintHistoryManager() {
21         this.database = CarcheckDatabase.getInstance();
22     }
23
24     @Override
25     public void doSave(VehicleComplaintHistoryBean element) throw
26         try {
27             this.database.update(element);
28         } catch (Exception e) {
29             e.printStackTrace();
30         }
31     }
32
33     @Override
34     public void doDelete(VehicleComplaintHistoryBean element) thr
```
- JUnit Test Results:** Shows the execution of the 'doGetVehicleComplaintsFromLicensePlate' test method. The test passed successfully, finishing after 0.42 seconds. The summary shows 1/1 runs, 0 errors, and 0 failures.

1.10 VehicleComplaintManager

The screenshot displays an IDE with the Project Explorer on the left and the main editor on the right. The Project Explorer shows a project named 'CarCheck' with a package structure including 'it.carcheck.testing'. The main editor shows the source code for 'VehicleComplaintManagerTesting', which is a JUnit 4 test class. The code includes package declarations, imports, and test methods like 'setUp()', 'tearDown()', and 'doGetVehicleComplaintFromLicensePlate()'. Below the editor, the JUnit test runner shows the results of a single test run, indicating it was successful.

```
1 package it.carcheck.testing;
2
3 import it.carcheck.database.CarcheckConfiguration;
4
10
11 public class VehicleComplaintManagerTesting extends TestCase {
12
13     public VehicleComplaintManagerTesting(String name) {
14         super(name);
15     }
16
17     @Override
18     protected void setUp() throws Exception {
19         CarcheckDatabase.begin(new CarcheckConfiguration());
20         this.manager = VehicleComplaintManager.getInstance();
21     }
22
23     @Override
24     protected void tearDown() throws Exception {
25         // TODO Auto-generated method stub
26         super.tearDown();
27     }
28
29     public void doGetVehicleComplaintFromLicensePlate() throws Ex
30         VehicleComplaintBean bean = manager.doGetVehicleComplaint
```

Finished after 0,368 seconds

Runs:	Errors:	Failures:
1/1	0	0

it.carcheck.testing.VehicleComplaintManagerTesting [Run] Failure Trace

1.11 VehicleInspectionManager

The screenshot displays an IDE with the Project Explorer on the left and the VehicleInspectionManagerTesting.java file open in the editor. The Project Explorer shows the project structure, including the src directory and various test classes. The editor shows the code for VehicleInspectionManagerTesting.java, which includes several test methods. The bottom of the IDE shows the JUnit test results, indicating that all tests passed successfully.

```
47     assertNotNull(beans);
48     for(VehicleInspectionBean inspection : beans)
49         assertTrue(inspection.getVehicle().contains("NAN"));
50 }
51
52 public void doRetrieveByKey() throws Exception {
53     WorkshopBean workshopBean = new WorkshopBean();
54     workshopBean.setId(11);
55
56     VehicleInspectionBean bean = manager.doRetrieveByKey(workshopBean);
57     assertNotNull(bean);
58     assertEquals(bean.getId(), 1);
59 }
60
61 public void doRetrieveByWorkshop() throws Exception {
62     WorkshopBean workshopBean = new WorkshopBean();
63     workshopBean.setId(11);
64
65     Collection<VehicleInspectionBean> beans = manager.doRetrieveByWorkshop(workshopBean);
66     assertNotNull(beans);
67     for(VehicleInspectionBean inspection : beans)
68         assertEquals(inspection.getWorkShop(), 11);
69 }
70 }
```

Finished after 0,418 seconds

Runs: 7/7 Errors: 0 Failures: 0

Failure Trace

- doRetrieveByLicensePlate (0,356 s)
- doRetrieveByLicensePlateLike (0,000 s)
- doRetrieveByKey (0,016 s)
- doRetrieveByWorkshop (0,000 s)
- doRetrieveExpiringInspection (0,000 s)
- doRetrieveTotalVehicle (0,000 s)
- doRetrieveByWorkshopIdAndLicensePlate (0,015 s)

1.12 VehicleManager

The screenshot displays an IDE interface with the following components:

- Project Explorer:** Shows the project structure for 'CarCheck [Carcheck development]'. The 'src' directory is expanded, showing various packages including 'it.carcheck.control', 'it.carcheck.model', and 'it.carcheck.testing'. The 'VehicleManagerTesting' class is highlighted in the 'testing' package.
- Code Editor:** Displays the source code of 'VehicleManagerTesting.java'. The code defines a class that extends 'TestCase' and implements several methods: 'setUp()', 'tearDown()', and 'doRetrieveVehicle()'. The 'doRetrieveVehicle()' method uses 'VehicleManager' to retrieve a vehicle and asserts its license plate.
- JUnit Runner:** Shows the test results for 'it.carcheck.testing.VehicleManagerTesting'. The tests passed successfully, with a total execution time of 0.436 seconds. The results are summarized in a table below.

Test Method	Execution Time (s)
doRetrieveVehicle	0.376
doRetrieveLastPossessionFee	0.008
doRetrieveLastInsurance	0.008
doRetrieveOwners	0.004
doRetrieveLastVehicleInspection	0.004
doRetrieveAll	0.000

1.13 WorkshopManager

The screenshot displays an IDE with the following components:

- Project Explorer:** Shows the project structure for 'CarCheck'. The 'src' directory contains packages like 'it.carcheck', 'it.carcheck.control', 'it.carcheck.database', 'it.carcheck.model', and 'it.carcheck.testing'. The 'it.carcheck.testing' package is expanded, showing 'WorkshopManagerTesting'.
- Editor:** Displays the 'WorkshopManager.java' file. The code includes:
 - Line 76: `this.manager.doSendAdhesionRequest(ws);`
 - Line 77: `AdhesionRequestManager adhesionManager = AdhesionRequest`
 - Line 78: `AdhesionRequestBean req = adhesionManager.doFind("select`
 - Line 79: `assertNotNull(req);`
 - Line 80: `}`
 - Line 81: `public void doAddVehicleInspection() throws Exception {`
 - Line 82: `WorkshopBean ws = new WorkshopBean();`
 - Line 83: `this.manager.doAddVehicleInspection(ws, new VehicleInspe`
 - Line 84: `VehicleInspectionManager vehicleInspection = VehicleInsp`
 - Line 85: `ArrayList<VehicleInspectionBean> inspection = vehicleIns`
 - Line 86: `assertNotNull(inspection);`
 - Line 87: `}`
 - Line 88: `public void doRetrieveAll() throws Exception {`
 - Line 89: `Collection<WorkshopBean> workshops = this.manager.doRetr`
 - Line 90: `assertNotNull(workshops);`
 - Line 91: `}`
 - Line 92: `public void doRetrieveWorkshopById() throws Exception {`
 - Line 93: `WorkshopBean workshop = this.manager.doRetrieveWorkshopB`
 - Line 94: `}`
- JUnit Test Results:** Shows the test 'it.carcheck.testing.WorkshopManagerTesting [Runner: JU]'. The test passed, finishing after 0,532 seconds. The results are as follows:

Test Method	Duration (s)
doLogin	0,385
doChangePassword	0,016
doRetrieveByEmail	0,000
doSignUp	0,069
doSendAdhesionRequest	0,015
doAddVehicleInspection	0,016
doRetrieveAll	0,000
doRetrieveWorkshopById	0,000