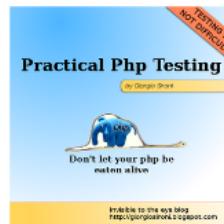


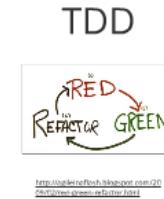
Design

Testo con PHPUnit



Testo prima di scrivere il codice

```
class FormIscrizione
{
    public function __construct()
    {
        $this->database = new PDO("mysql:host=localhost;dbname=veicoli");
        $this->erroriValidazione =
            file_get_contents("messages.txt");
        $this->layout = Layout::getInstance();
    }
}
```



Automazione

Test col browser

Campo 1: <input type="text" value="Titolo"/>	Campo 2: <input type="text" value="cognome"/>
Campo 3: <input type="text" value="name"/>	Campo 4: <input type="text" value="cognome"/>
Campo 5: <input type="text" value="1"/>	Campo 6: <input type="text" value="40"/>
Campo 7: <input type="text" value="poco"/>	Campo 8: <input type="text" value="bennotato"/>
Campo 9: <input type="text" value="p"/>	Campo 10: <input type="text" value="n"/>
Campo 11: <input type="text" value="t"/>	
<input type="button" value="Submit"/>	<input type="button" value="Submit"/>

5 minuti dopo

sei mesi dopo

manca di
ripetibilità

richiede tempo

non è completa

Test automatici in PHP

Giorgio Sironi
Software engineer
Allbus, DZone
@giorgiosironi
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Test automatici in PHP

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Testo col browser

5 minuti dopo

Campo 1:

Campo 2:

Campo 3:

Campo 4:

Campo 5:



Campo 1: Titolo

Campo 2: descrizione

Campo 3: altro

Campo 4: altro, altro

Campo 5: 1

Campo 6: 40

Campo 7: prova

Campo 8: lorem ipsum

Campo 9: 9

Campo 10: 10

Campo 11: 11

Submit

5 mi

sei r



5 minuti dopo





se i mesi dopo

Campo 1:

Campo 2:

Campo 3:

Campo 4:

Campo 5:

Campo 6:

Campo 7:

Campo 8:

Campo 9:

Campo 10:

Campo 11:

Submit

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ripetibilità

ripetibilità

richiede tempo

I I U I I I C U T L C I I I P U

non è completa

Testo col browser

Campo 1:	Titolo
Campo 2:	descrizione
Campo 3:	altro
Campo 4:	altro, altro
Campo 5:	1
Campo 6:	40
Campo 7:	prova
Campo 8:	lorem ipsum
Campo 9:	9
Campo 10:	10
Campo 11:	11

5 minuti dopo



sei mesi dopo

Campo 1:	
Campo 2:	
Campo 3:	
Campo 4:	
Campo 5:	
Campo 6:	
Campo 7:	
Campo 8:	
Campo 9:	
Campo 10:	
Campo 11:	

manca di
ripetibilità

richiede tempo

non è completa



Automazione

Testo con PHPUnit

```
[15:31:21][giorgio@Desmond:~/code/practical-php-testing-patterns]$ phpunit --colors
PHPUnit 3.6.10 by Sebastian Bergmann.

.
.
.
Time: 0 seconds, Memory: 6.75Mb
OK (60 tests, 71 assertions)
[15:31:23][giorgio@Desmond:~/code/practical-php-testing-patterns]$
```

```
[15:32:02][giorgio@Desmond:~/code/practical-php-testing-patterns]$ phpunit --colors .
PHPUnit 3.6.10 by Sebastian Bergmann.

.....F.......
```

Time: 1 second, Memory: 6.75Mb

There was 1 failure:

```
1) HardCodedTestDoubleTest::testCalculatesAverageVisitorsNumber
Failed asserting that null matches expected 50000.

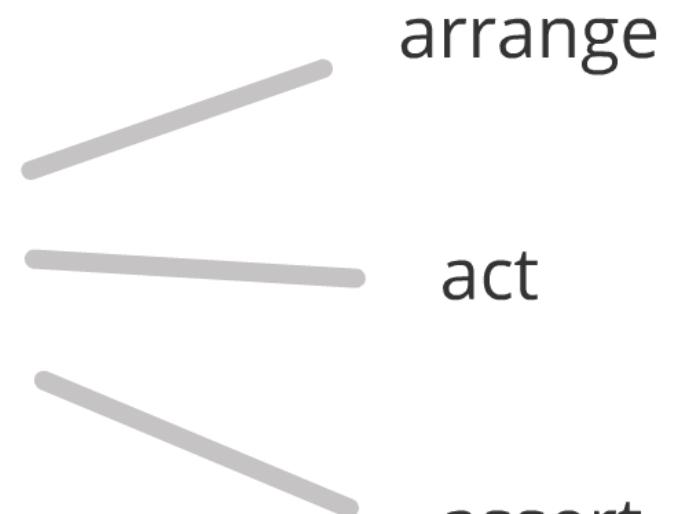
/home/giorgio/code/practical-php-testing-patterns/HardCodedTestDoubleTest.php:16
```

FAILURES!

Tests: 60, Assertions: 71, Failures: 1.

```
[15:32:04][giorgio@Desmond:~/code/practical-php-testing-patterns]$
```

```
class ArrayTest extends  
PHPUnit_Framework_TestCase  
{  
    public function  
testArraysLengthCanBeCalculated()  
{  
    $tagNames = array('div', 'p', 'a');  
    $count = count($tagNames);  
    $this->assertEquals(3, $count);  
}  
}
```



arrange

act

assert



qualità interna
per lo sviluppatore

qualità estern
per il cliente

```
public function testTypingViaTheKeyboard()
{
    $this->url('html/test_type_page1.html');
    $usernameInput = $this-
>byName('username');
    $usernameInput->value('TestUser');

    $passwordInput = $this->byName('password');
    $passwordInput->value('testUserPassword');

    $this->clickOnElement('submitButton');
    $h2 = $this->byCssSelector('h2');
    $this->assertRegExp('/Welcome, TestUser!/',
                        $h2->text());
}
```

TESTING IS
NOT DIFFICULT!

Practical Php Testing

by Giorgio Sironi



**Don't let your php be
eaten alive**

Invisible to the eye blog
<http://giorgiosironi.blogspot.com>

Testo con PHPUnit

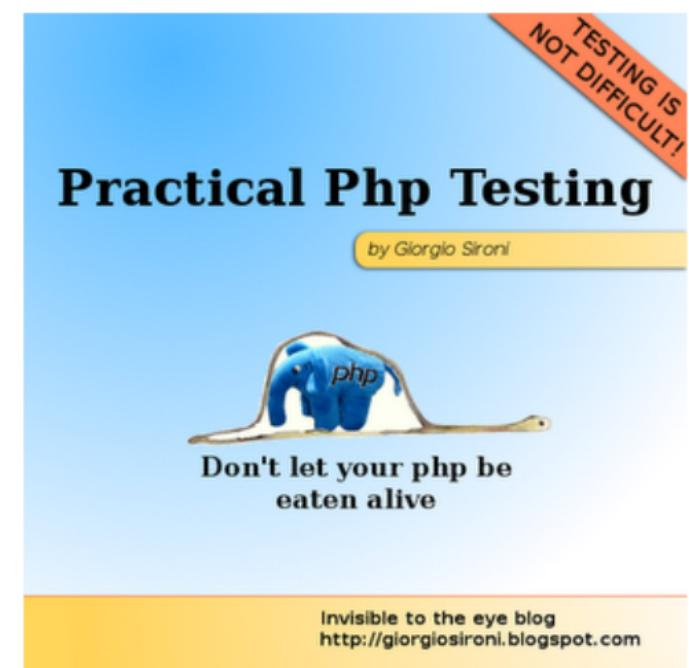
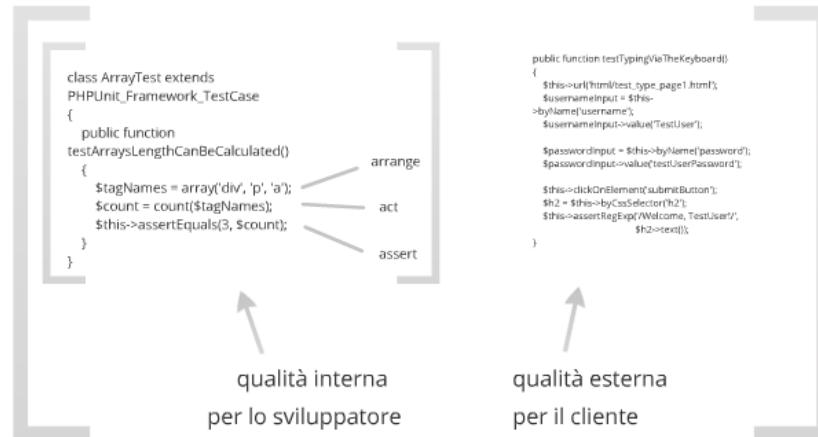
```
[15:31:21] [giorgio@Desmond:~/code/practical-php-testing-patterns]$ phpunit --col
ors
PHPUnit 3.6.10 by Sebastian Bergmann.

Time: 0 seconds, Memory: 6.75Mb
[OK (0 tests, 0 assertions)]
[15:31:23] [giorgio@Desmond:~/code/practical-php-testing-patterns]$
```

```
[15:32:02] [giorgio@Desmond:~/code/practical-php-testing-patterns]$ phpunit --col
ors
PHPUnit 3.6.10 by Sebastian Bergmann.

.....|.

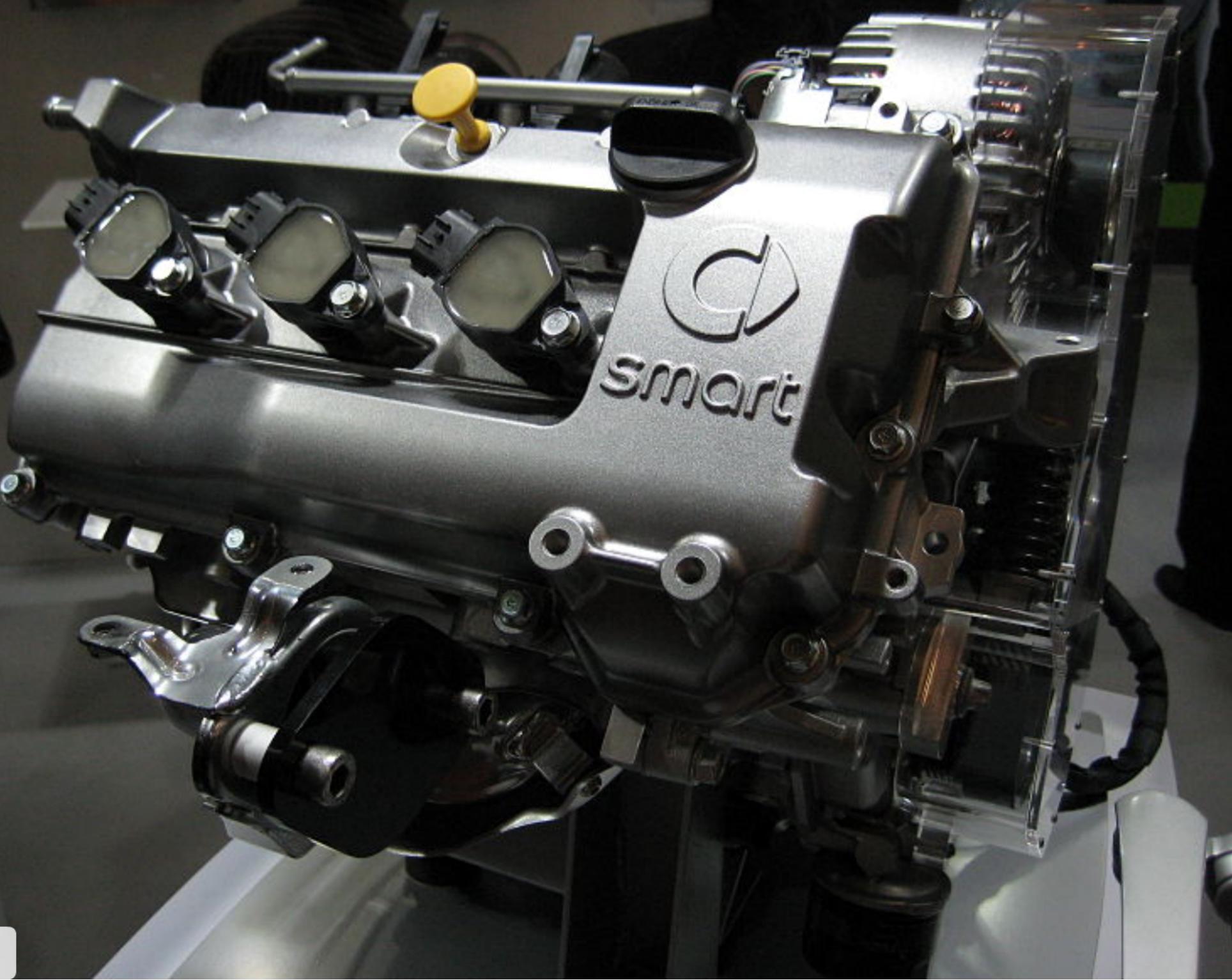
Time: 1 second, Memory: 6.75Mb
There was 1 failure:
1) HardcodedTestDoubleTest::testCalculatesAverageVisitorsNumber
Failed asserting that null matches expected 50000.
/home/giorgio/code/practical-php-testing-patterns/hardcodedTestDoubleTest.php:16
FAILURES
Tests: 0, Assertions: 0, Failures: 1.
[15:32:04] [giorgio@Desmond:~/code/practical-php-testing-patterns]$
```

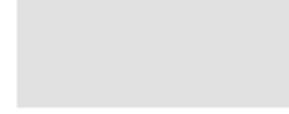


Design

```
class FormIscrizione
{
    public function __construct() {
        $this->database = new
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    }
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```



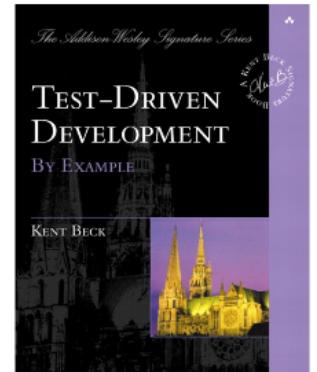
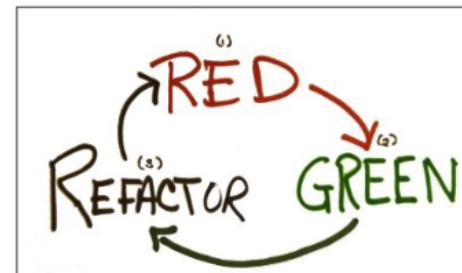




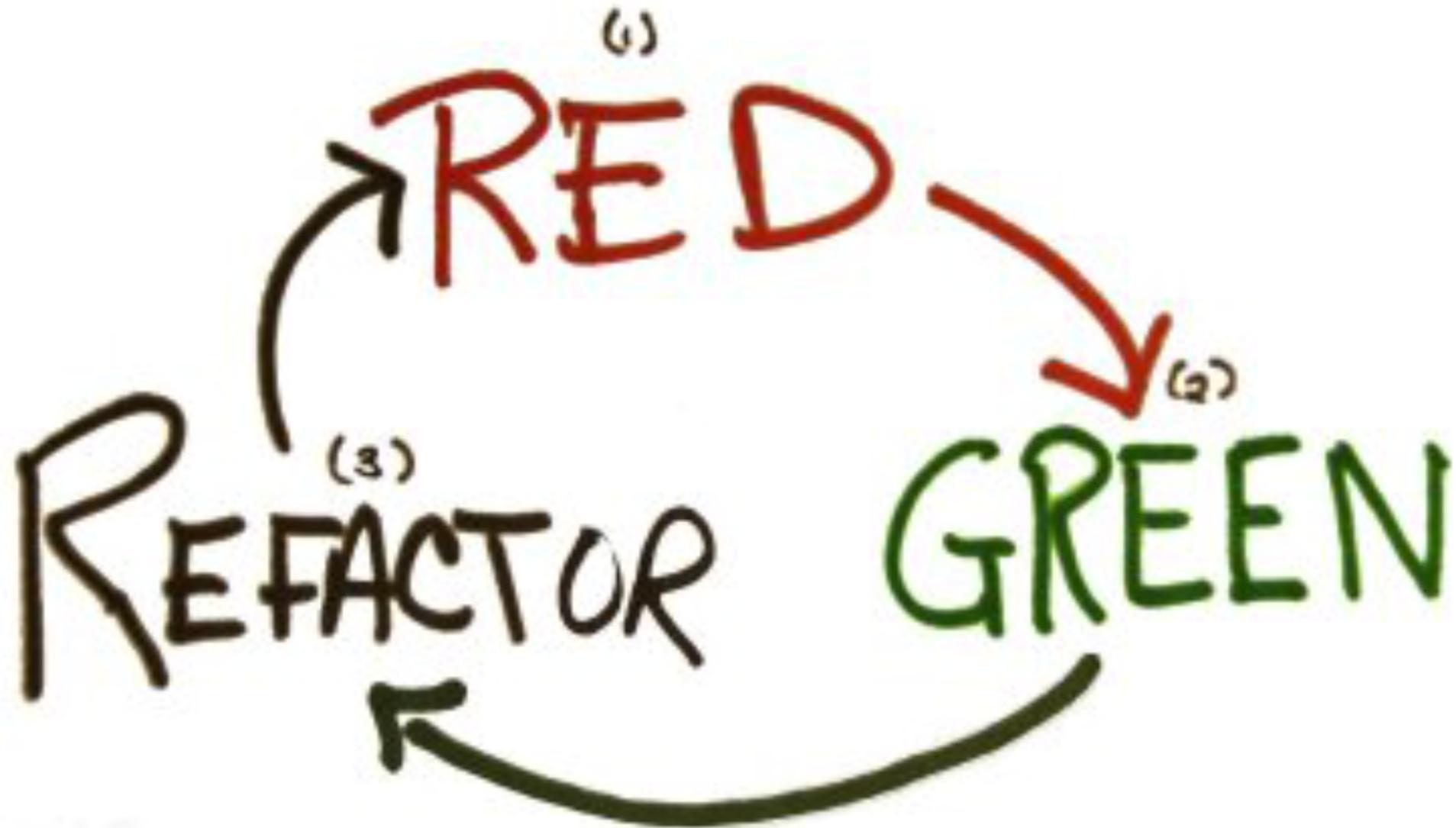
Testo prima di scrivere il codice

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        $this->erroriValidazione =
        file_get_contents("messages.txt");
        $this->layout = Layout::getInstance();
    }
}
```

TDD



TDD



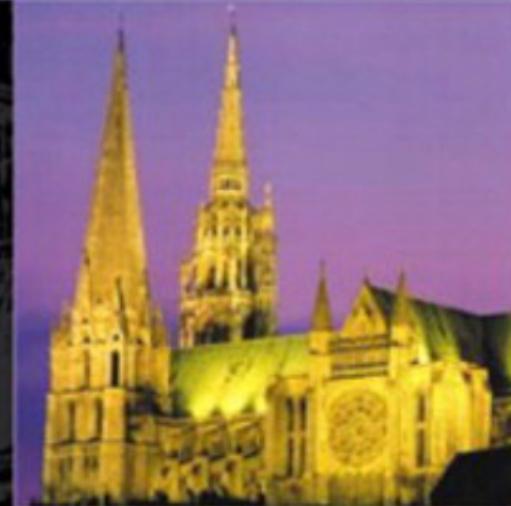
The Addison-Wesley Signature Series

TEST-DRIVEN DEVELOPMENT

BY EXAMPLE

A KENT BECK
SIGNATURE BOOK

KENT BECK





The Addison-Wesley Signature Series

A KENT BECK
SIGNATURE
BOOK

GROWING OBJECT-ORIENTED SOFTWARE, GUIDED BY TESTS

STEVE FREEMAN
NAT PRYCE



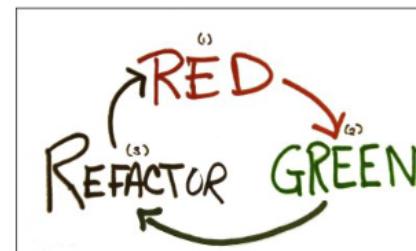


Testo prima di scrivere il codice

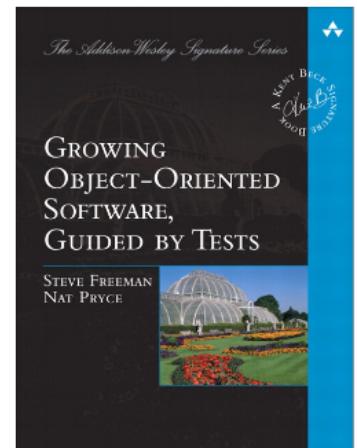
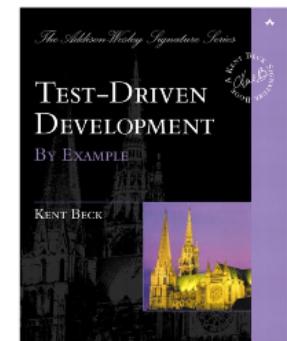
```
class FormIscrizione
{
    public function __construct()
    {
        $this->database = new
        PDO("mysql:host=localhost;dbname=veic
        oli");
        $this->erroriValidazione =
        file_get_contents("messages.txt");
        $this->layout = Layout::getInstance();
    }
}
```



TDD

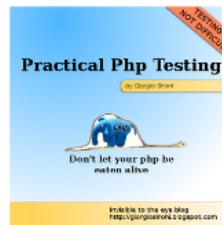


<http://agileinflash.blogspot.com/2009/02/red-green-refactor.html>



Design

Testo con PHPUnit



Testo prima di scrivere il codice

```
class FormIscrizione
{
    public function __construct()
    {
        $this->database = new PDO("mysql:host=localhost;dbname=veicoli");
        $this->erroriValidazione =
            file_get_contents("messages.txt");
        $this->layout = Layout::getInstance();
    }
}
```



TDD



Automazione

Test col browser

A screenshot of a web form with 11 fields labeled Campo 1 through Campo 11. Each field has a placeholder value. A 'Submit' button is at the bottom.

5 minuti dopo →

A screenshot of the same web form after 5 minutes, showing changes in some fields (e.g., Campo 2 now has 'password'). A 'Submit' button is at the bottom.

sei mesi dopo

manca di ripetibilità
richiede tempo
non è completa

Test automatici in PHP

Giorgio Sironi
Software engineer
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