



PHPUnit



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ÍNDICE

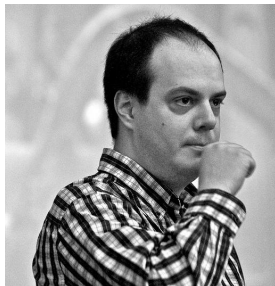


- Introducción
- Instalación
- Aserciones
- Anotaciones
- Funcionamiento
- Ejemplos
- Archivo de configuración .xml
- Coverage
- Conclusión

<https://github.com/marcoslupion/PHPUnit>

Introducción

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PHP



Framework Open Source para Pruebas de código PHP



Instalación



Opción 1

<https://phpunit.de/getting-started/phpunit-7.html>

Opción 2



XAMPP

Aserciones



```
assertArrayHasKey()  
assertClassHasAttribute()  
assertArraySubset()  
assertClassHasStaticAttribute()  
assertContains()  
assertContainsOnly()  
assertContainsOnlyInstancesOf()  
assertCount()  
assertDirectoryExists()  
assertDirectoryIsReadable()  
assertDirectoryIsWritable()  
assertEmpty()  
assertEqualXMLStructure()  
assertEquals()  
assertFalse()
```

```
assertFileEquals()  
assertFileExists()  
assertFilesReadable()  
assertFilesWritable()  
assertGreaterThan()  
assertGreaterThanOrEqual()  
assertInfinite()  
assertInstanceOf()  
assertInternalType()  
assertIsReadable()  
assertIsWritable()  
assertJsonFileEqualsJsonFile()  
assertJsonStringEqualsJsonFile()  
assertJsonStringEqualsJsonString()  
assertLessThan()
```

```
assertLessThanOrEqual()  
assertNan()  
assertNull()  
assertObjectHasAttribute()  
assertRegExp()  
assertStringMatchesFormat()  
assertStringMatchesFormatFile()  
assertSame()  
assertStringEndsWith()  
assertStringEqualsFile()  
assertStringStartsWith()  
assertThat()  
assertTrue()  
assertXmlFileEqualsXmlFile()  
assertXmlStringEqualsXmlFile()  
assertXmlStringEqualsXmlString()
```

Anotaciones



- @author
- @after
- @afterClass
- @backupGlobals
- @backupStaticAttributes
- @before
- @beforeClass
- @codeCoverageIgnore*
- @covers
- @coversDefaultClass
- @coversNothing
- @dataProvider
- @depends
- @doesNotPerformAssertions
- @expectedException

- @expectedExceptionCode
- @expectedExceptionMessage
- @expectedExceptionMessageRegExp
- @group
- @large
- @medium
- @preserveGlobalState
- @requires
- @runTestsInSeparateProcesses
- @runInSeparateProcess
- @small
- @test
- @testdox
- @testWith
- @ticket
- @uses

Funcionamiento

- Creación de clases para albergar los test
- Herencia de PHPUnit\Framework\TestCase
- Creacion de metodos de test:
 - Notacion @test
 - test*
- Creacion de las aserciones

```
1  <?php
2  use PHPUnit\Framework\TestCase;
3  require "Alumno.php";
4
5  final class EmailTest extends TestCase
6  {
7      private $usuario;
8
9
10     public function test_crear_alumno_vacio() {
11         $usuario = new Alumno();
12         $this->assertFalse(is_null($usuario));
13     }
14     /**
15      * @test
16      */
17     public function crear_alumno_vacio() {
18         $usuario = new Alumno();
19         $this->assertTrue(!is_null($usuario));
20     }
21     public function test_alumno_vacio_campos_default() {
22         $usuario = new Alumno();
23         $cadena = "Nombre: default/nApellidos: default/nC";
24         $this->assertEquals(
25             $cadena,
26             $usuario->toString()
27         );
28     }
29 }
```

Anotaciones- Ejemplo

```
1 <?php
2 use PHPUnit\Framework\TestCase;
3 require "Alumno.php";
4
5 final class EmailTest extends TestCase
6 {
7     private $usuario;
8
9
10 public function test_crear_alumno_vacio(){
11     $usuario = new Alumno();
12     $this->assertFalse(is_null($usuario));
13 }
14 /**
15  * @test
16  */
17 public function crear_alumno_vacio(){
18     $usuario = new Alumno();
19     $this->assertTrue(!is_null($usuario));
20 }
21 public function test_alumno_vacio_campos_default(){
22     $usuario = new Alumno();
23     $cadena = "Nombre: default/nApellidos: default/nC";
24     $this->assertEquals(
25         $cadena,
26         $usuario->toString()
27     );
28 }
```

```
1 <?php
2 use PHPUnit\Framework\TestCase;
3 require "Alumno.php";
4
5 final class EmailTest extends TestCase
6 {
7     private $usuario;
8     /**
9      * @before
10     */
11 public function inicializar(){
12     $this->usuario = new Alumno();
13 }
14
15 public function test_crear_alumno_vacio(){
16     $this->assertFalse(is_null($this->usuario));
17 }
18 /**
19  * @test
20  */
21 public function crear_alumno_vacio(){
22     $this->assertTrue(!is_null($this->usuario));
23 }
24 public function test_alumno_vacio_campos_default(){
25     $cadena = "Nombre: default/nApellidos: default/nC";
26     $this->assertEquals(
27         $cadena,
28         $this->usuario->toString()
29     );
30 }
31 }
```


Anotaciones- Ejemplo

```
32 public function test_cambiar_propiedad_nota_media(){
33     $cadena = "Nombre: default/nApellidos: default/nCorreo electrónico: default@correo.com/nNota Media: 5/n";
34     $this->usuario->cambiar_propiedad("nota",4);
35     $this->assertEquals(
36         $cadena,
37         $this->usuario->toString()
38     );
39 }
40
41 /**
42  * @depends test_cambiar_propiedad_nota_media
43  */
44 public function test_calcular_nota_media(){
45     $cadena = "Nombre: default/nApellidos: default/nCorreo electrónico: default@correo.com/nNota Media: 6/n";
46     $this->usuario->calcular_nota_media(5,7);
47     $this->assertEquals(
48         $cadena,
49         $this->usuario->toString()
50     );
51 }
```

Anotaciones- Ejemplo

```
# phpunit AlumnoTest.php
PHPUnit 7.1.5 by Sebastian Bergmann and contributors.

FS                                                                    2 / 2 (100%)

Time: 164 ms, Memory: 8.00MB

There was 1 failure:

1) EmailTest::test_cambiar_propiedad_notas_media
Failed asserting that two strings are equal.
--- Expected
+++ Actual
@@ @@
-'Nombre: default/nApellidos: default/nCorreo electrónico: default@correo.com/nNota Media: 5/n'
+'Nombre: default/nApellidos: default/nCorreo electrónico: default@correo.com/nNota Media: 4/n'

C:\xampp\htdocs\dashboard\Github\HMIS_PHPUnit\EasyExample\AlumnoTest.php:35

FAILURES!
Tests: 2, Assertions: 1, Failures: 1, Skipped: 1.
```

Archivo de configuración phpunit.xml

```
1 <phpunit>
2 <testsuites>
3   <testsuite name="small">
4     <directory>C:\xampp\htdocs\dashboard\GitHub\HMIS_PHPUnit\EasyExample</directory>
5   </testsuite>
6 </testsuites>
7 <filter>
8   <whitelist processUncoveredFilesFromWhitelist="true">
9     <directory>C:\xampp\htdocs\dashboard\GitHub\HMIS_PHPUnit\EasyExample</directory>
10   </whitelist>
11 </filter>
12 <logging>
13   <log type="coverage-html" target="C:\xampp\tmp\report" lowUpperBound="35"
14     highLowerBound="70"/>
15   <log type="coverage-text" target="php://stdout" showUncoveredFiles="false"/>
16 </logging>
17 </phpunit>
```

Coverage



Requisitos:

- XDebug instalado donde esté instalado PHP
- Archivo de configuración .xml

```
phpunit --configuration [ruta del archivo xml]
```

Coverage



```
# phpunit --configuration phpunit.xml
PHPUnit 7.1.5 by Sebastian Bergmann and contributors.

FS                                                                    2 / 2 (100%)

Time: 332 ms, Memory: 10.00MB

There was 1 failure:

1) EmailTest::test_cambiar_propiedad_notas_media
Failed asserting that two strings are equal.
--- Expected
+++ Actual
@@ @@
-'Nombre: default/nApellidos: default/nCorreo electrónico: default@correo.com/nNota Media: 5/n'
+'Nombre: default/nApellidos: default/nCorreo electrónico: default@correo.com/nNota Media: 4/n'

C:\xampp\htdocs\dashboard\GitHub\HMIS_PHPUnit\EasyExample\AlumnoTest.php:36

FAILURES!
Tests: 2, Assertions: 1, Failures: 1, Skipped: 1.

Generating code coverage report in HTML format ... done

Code Coverage Report:
 2018-05-17 13:47:23

Summary:
  Classes:  0.00% (0/2)
  Methods: 42.86% (3/7)
  Lines:   63.16% (24/38)

Alumno
  Methods: 50.00% ( 2/ 4)   Lines: 70.83% ( 17/ 24)
EmailTest
  Methods: 33.33% ( 1/ 3)   Lines: 50.00% (  7/ 14)
```

Coverage



C:\xampp\htdocs\dashboard\GitHub\HMIS_PHPUnit\EasyExample / (Dashboard)

	Code Coverage								
	Lines			Functions and Methods			Classes and Traits		
Total		63.16%	24 / 38		42.86%	3 / 7		0.00%	0 / 2
Alumno.php		70.83%	17 / 24		50.00%	2 / 4		0.00%	0 / 1
AlumnoTest.php		50.00%	7 / 14		33.33%	1 / 3		0.00%	0 / 1

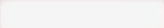


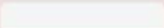






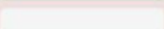

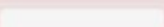
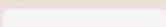
Legend

Low: 0% to 35% **Medium:** 35% to 70% **High:** 70% to 100%

Generated by [php-code-coverage 6.0.4](#) using [PHP 7.1.10](#) with [Xdebug 2.6.0](#) and [PHPUnit 7.1.5](#) at Thu May 17 13:47:23 CEST 2018.

Coverage

C:\xampp\htdocs\dashboard\GitHub\HMIS_PHPUnit\EasyExample / Alumno.php

	Code Coverage									
	Classes and Traits			Functions and Methods				Lines		
Total		0.00%	0 / 1		50.00%	2 / 4	CRAP		70.83%	17 / 24
Alumno		0.00%	0 / 1		50.00%	2 / 4	9.59		70.83%	17 / 24
__construct				100.00%	1 / 1	1			100.00%	5 / 5
toString				100.00%	1 / 1	1			100.00%	6 / 6
cambiar_propiedad				0.00%	0 / 1	6.60			60.00%	6 / 10
calcular_nota_media				0.00%	0 / 1	2.00			0.00%	0 / 3

Coverage



```
29 public function cambiar_propiedad($propiedad,$valor){
30     if($propiedad=="nombre"){
31         $this->nombre = $valor;
32
33     }else if($propiedad=="apellidos"){
34         $this->apellidos = $valor;
35
36     }else if($propiedad=="correo"){
37         $this->correo = $valor;
38
39     }else if($propiedad=="nota"){
40         $this->nota_medio = $valor;
41     }else{
42         echo "ERROR";
43     }
44 }
```


Conclusión

Ventajas

- Funcionalidad completa
- Fácil de usar
- Posible hacer test sobre BD
- Muy parecido a JUnit

Desventajas

- NO hay test parametrizados
- Instalacion difícil en WINDOWS

