PHPUnit

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#t3cs16

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- LOVE TYPO3

- TYPO3.org, TER (TYPO3 Extension Repository)
- Crawler + Languagevisibility
- Automation - Chef & Jenkins
- Talked about "Automated Testing on Travis" T3EE16 - Cluj

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#daneingermany

Agenda

- Why write tests ?
- Unit test
  - Mocking
- Functional tests
  - Fixtures
- Unit vs. Functional

Why write tests?

- Fail fast, breaking changes
- Easier refactoring
- Helps you code structure

Unit tests

```php
/**
 * Class SpeakerTest
 * @package TNM\T3eeExample\Tests\Unit\Domain\Model
 */
class SpeakerTest extends \TYPO3\CMS\Core\Tests\UnitTestCase {

    /**
     * @var Speaker
     */
    protected $subject;

    /**
     * @return void
     */
    public function setUp() {
        $name = 'Homer Simpson';
        $this->subject = new Speaker($name);
    }

    /**
     * @test
     */
    public function getNameReturnsName() {
        $name = 'Bart Simpson';
        $this->subject->setName($name);

        $this->assertSame(
            $name,
            $this->subject->getName()
        );
    }

}
```

Functional tests - setUp()

```php
/**
 * SetUp
 */
public function setUp() {
    $this->testExtensionsToLoad = array(
        'typo3conf/ext/t3ee_example',
    );
    parent::setUp();
    $this->importDataSet(__DIR__ . '/Fixtures/tx_t3eeexample_domain_model_talk.xml');
    $this->importDataSet(__DIR__ . '/Fixtures/tx_t3eeexample_domain_model_speaker.xml');
    $this->objectManager = \TYPO3\CMS\Core\Utility\GeneralUtility::makeInstance('TYPO3\\CMS\\Extbase\\Object\\ObjectManager');
    $this->speakerRepository = $this->objectManager->get('TNM\\T3eeExample\\Domain\\Repository\\SpeakerRepository');

    /** @var $querySettings \TYPO3\CMS\Extbase\Persistence\Generic\Typo3QuerySettings */
    $querySettings = $this->objectManager->get('TYPO3\\CMS\\Extbase\\Persistence\\Generic\\Typo3QuerySettings');
    $querySettings->setRespectStoragePage(FALSE);
    $this->speakerRepository->setDefaultQuerySettings($querySettings);
}
```

Functional tests - importDataSet()

```xml
<?xml version="1.0" encoding="utf-8"?>
<dataset>
    <tx_t3eeexample_domain_model_speaker>
        <uid>1</uid>
        <pid>345</pid>
        <name>Homer Simpson</name>
    </tx_t3eeexample_domain_model_speaker>
    <tx_t3eeexample_domain_model_speaker>
        <uid>2</uid>
        <pid>345</pid>
        <name>Bart Simpson</name>
    </tx_t3eeexample_domain_model_speaker>
</dataset>
```

```xml
<?xml version="1.0" encoding="utf-8"?>
<dataset>
    <tx_t3eeexample_domain_model_talk>
        <uid>23</uid>
        <pid>345</pid>
        <name>My life in Springfield</name>
        <date>1445538625</date>
        <speaker>1</speaker>
    </tx_t3eeexample_domain_model_talk>
    <tx_t3eeexample_domain_model_talk>
        <uid>45</uid>
        <pid>345</pid>
        <name>Simpsons The Movie - With my eyes</name>
        <date>1445538625</date>
        <speaker>2</speaker>
    </tx_t3eeexample_domain_model_talk>
</dataset>
```

Functional tests - the test

```php
/**
 * @test
 */
public function findAllTest() {
    $expectedSpeakersArray = array(1,2);
    $actualSpeakersArray =  array();

    $speakers = $this->speakerRepository->findAll();

    /** @var Speaker $speaker */
    foreach ($speakers as $speaker) {
        $actualSpeakersArray[] = $speaker->getUid();
    }

    $this->assertSame(
        $expectedSpeakersArray,
        $actualSpeakersArray
    );
}
```

Links

- https://phpunit.de/ (English)
- https://github.com/tomasnorre/t3ee_example