A PHP5 Open-Source Framework

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Outline

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- Architecture
- Configurability
- ORM
- Admin Generator
- Functional Tests
- Debugging tools
- Community Plugins
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Introduction

- Sensio(French), Oct. 2005
- PHP5 Web Framework
- Open-Source
  - MIT license
  - LAMP full Stack
- Make heavy use of open-source php projects
- M-V-C
Don’t reinvent the wheel

- Follow best practices
- MVC Pattern: Model / View / Controller
- Unit and functional test framework
- Environment and deployment support
- Security (XSS protection by default)
- Extensible (plugin system)
## Popular PHP frameworks

- **CakePHP**
  - Documentation is somewhat lacking
  - Apparently difficult for beginners

- **KiwiPHP**
  - Powerful, but still unstable

- **Symfony**
  - Great documentation and community
  - Easy to get started

- **Zend**
  - Supported by Zend (official PHP company)
  - More of a library than complete framework
Symfony Main Selling Points

- Configurability
- XSS protection
- Debugging tools
- Functional tests
- Extensibility: Plugins
- Admin Generator
- ORM: Propel or Doctrine
- i18n / l10n
Architecture
Packages
Configurability

- **cmd**

  ```
  $ php symfony configure:database "mysql:host=localhost;dbname=dbname" root mySecret
  $ symfony project:permissions
  ```

- **YAML**

  ```yaml
  # Never use tabs
  all:
  -> mail:
  -> -> webmaster: webmaster@example.com

  # Use blanks instead
  all:
  mail:
  webmaster: webmaster@example.com
  ```
ORM

- Doctrine & Propel
  - PHP Open-Source Project
  - Object Relation Model Layer
  - One of Doctrine's key features is the option to write database queries in a proprietary object oriented SQL dialect called Doctrine Query Language (DQL) inspired by Hibernate's HQL.
  - YAML --> Database tables
Doctrine

Object-Relational Mapping API. The bridge between the relational model and the object model / domain model

Complete database abstraction API, including introspection etc.

Doctrine ORM

Doctrine DBAL

PDO

Basic cross-database API
ORM Example (Doctrine)

Examples:

- $user = new User();
- $user->name = "john";
- $user->password = "doe";
- $user->save();
- echo "The user with id $user->id has been saved.";
Admin Generator

- Code Generation Based on the Model (CRUD)
  - Creation of a record
  - Retrieval of records
  - Update of a record (and modification of its columns)
  - Deletion of a record
Admin Generator Cont.

- **Automatic** creation of an Administration Backend, ready for production
  - Lists
  - Pagination
  - Sorting
  - Filters
  - Validation
  - CRUD

$ php symfony doctrine:generate-admin backend JobeetJob --module=job

$ php symfony doctrine:generate-admin backend JobeetCategory --module=category
## Example:

### CATEGORY MANAGEMENT

<table>
<thead>
<tr>
<th>Name</th>
<th>Slug</th>
<th>Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design</td>
<td>design</td>
<td>Edit Delete</td>
</tr>
<tr>
<td>Programming</td>
<td>programming</td>
<td>Edit Delete</td>
</tr>
<tr>
<td>Manager</td>
<td>manager</td>
<td>Edit Delete</td>
</tr>
<tr>
<td>Administrator</td>
<td>administrator</td>
<td>Edit Delete</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Name</th>
<th>Slug</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>is empty</td>
</tr>
<tr>
<td></td>
<td></td>
<td>is empty</td>
</tr>
</tbody>
</table>

**Jobeet category affiliate list**

[Filter]
Admin Generator Cont.

- Pagination & CRUD

```plaintext
looking for a Web Developer (Paris, France)

- Programming - Company 105 (job@example.com) is looking for a Web Developer (Paris, France)

- Programming - Company 106 (job@example.com) is looking for a Web Developer (Paris, France)

36 results (page 1/4)
```

Choose an action
- go
+ New

Choose an action
- Delete
- Extend
```
Functional Tests

- Functional tests are a great tool to test your application from end to end: from the request made by a browser to the response sent by the server. They test all the layers of an application: the routing, the model, the actions, and the templates.
$browser = new sfBrowser();

(browser) ->
    get('/') ->
    click('Design') ->
    get('/category/programming?page=2') ->
    get('/category/programming', array('page' => 2)) ->
    post('search', array('keywords' => 'php'))
Functional Tests Cont.

```bash
~/work/jobeeet $ ./symfony test:functional frontend categoryActions
# get /category/index
ok 1 - request parameter module is category
not ok 2 - request parameter action is index
    # Failed test (/Users/fabien/work/symfony/dev/1.2/lib/test/sfTesterRequest.class.php at line 48)
    #     got: 'show'
    #     expected: 'index'
not ok 3 - status code is 200
    # Failed test (/Users/fabien/work/symfony/dev/1.2/lib/test/sfTesterResponse.class.php at line 257)
    #     got: 404
    #     expected: 200
ok 4 - response selector body does not match regex /This is a temporary page/ 1..4

Looks like you failed 2 tests of 4.
```

```bash
~/work/jobeeet $  
```
Debugging Tools
Debugging Tool Cont.

- Web Debugging tool
Debugging Tools Cont.

Oops! Page Not Found
The server returned a 404 response.

Did you type the URL?
You may have typed the address (URL) incorrectly. Check it to make sure you've got the exact right spelling, capitalization, etc.

Did you follow a link from somewhere else at this site?
If you reached this page from another part of this site, please email us at [email] so we can correct our mistake.

Did you follow a link from another site?
Links from other sites can sometimes be outdated or misspelled. Email us at [email] where you came from and we can try to contact the other site in order to fix the problem.

What's next
- Back to previous page
- Go to Homepage
Community Plugin (Recommended)

- **SfDoctrinGuardPlugin.**
  - Identity management plugin

- **SfJqueryReloadedPlugin.**
  - Easy integration of jQuery

- **sfAdminThemejRollerPlugin**
  - Admin generator theme based on jQuery UI ThemeRoller
Community Plugins Cont.

- CMS
  - apostrophePlugin
    - Apostrophe is a Symfony and Doctrine-based CMS that emphasizes in-context editing. All slot types are implemented as Symfony modules, with all the flexibility that implies. Version control is implemented, permitting easy rollback of all edits. jQuery is used to implement AJAX features.
  - sfSympalPlugin
    - Sympal is an extension of symfony that provides a content management framework layer on top of all the greatness you get with symfony. It is a nice plug n' play architecture so other Sympal plugins can interact with the core and manipulate things with events.
Community Plugins Cont.

- Web Service:
  - sfDoctrineRestGeneratorPlugin
    - This plugin permits to generate REST modules bound to Doctrine models. It allows to easily create REST webservices, and provides an extensible framework for data exchange. Here are some key features: REST module generation "à la admin-generator" easy-to-customize generator.yml configuration file validation of the parameters passed to the service using symfony validators serialization as XML or JSON feeds possibility to embed related models possibility to embed extra fields ability to limit the number of results, with ou without pagination support for constraints unions (ie., http://api.example.org/city?city_id=12,13,14) hookable through events and filters abstract and replaceable objects serialization full HTTP support (GET, POST, PUT, DELETE)
Summary

- A framework, not a toolbox
- Highly configurable, only functionality for developing a web app
- Should be used together with plugins
Thanks.