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afup

Doctrine 2

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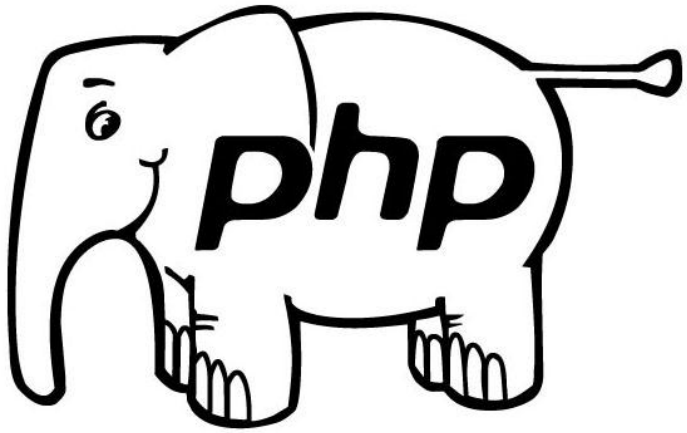
doctrine

Who am I?



- Juozas Kaziukėnas, Lithuanian
- You can call me *Joe*
- 2 years in Edinburgh, UK
- Studying in University of Edinburgh
- Software developer, consultant and evangelist
- Open source developer for Zend Framework, **Doctrine**…
- More info in www.juokaz.com and twitter @juokaz

Who are you?

- Doctrine users?
- Propel users? (you will be converted!)
- Interested in DB's and PHP?
- Interested in PHP news?

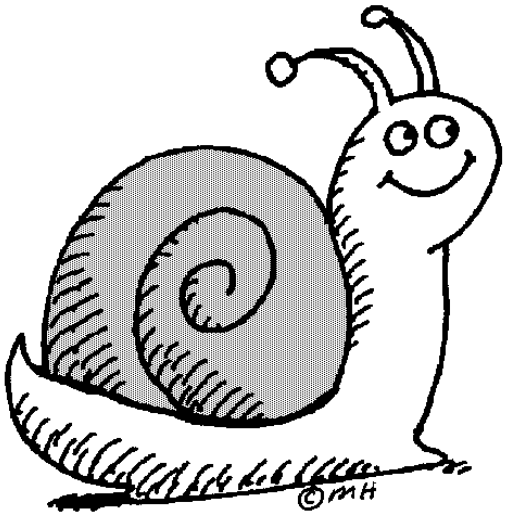
Doctrine is ORM tool for PHP

Inspired by Hibernate, ActiveRecord etc.

Doctrine 1.X

Doctrine 1.X

- Slow
- High memory usage (cyclic references)
- Magic! (eg. Behaviors)
- Hard to execute raw SQL
- Still the best ORM for PHP available today



ActiveRecord

Root of all problems!

ActiveRecord

```php
$user = new Model_User();
$user->name = 'Juozas';

$user->save();
```

Still the best ORM for PHP available today

- Stable
- Works
- Makes development fast, clean and consistent
- Used in production

Doctrine 2

Doctrine 2 is completely

different

Everything you can do in Doctrine 1 you can do in Doctrine 2, just in a different way.

What's new?

- Rewritten from scratch (almost)
- PHP 5.3
- Decoupled components
- Simplified API
  - "Complexified" internals?..
- Performance
  - New hydartion
  - Less magic
  - Overall cleanup

Doctrine 2 Architecture:
Based on JSR-317 a.k.a. JPA v2.0

[Common, DBAL, ORM, ODM]

Common

- Caching
- Events
- Annotations
- Class loaders
- … more

Annotations

```
/**
 * @Foo(bar="foo")
 * @Bar(foo="bar")
 */
class Model_User
{
}
```

DBAL

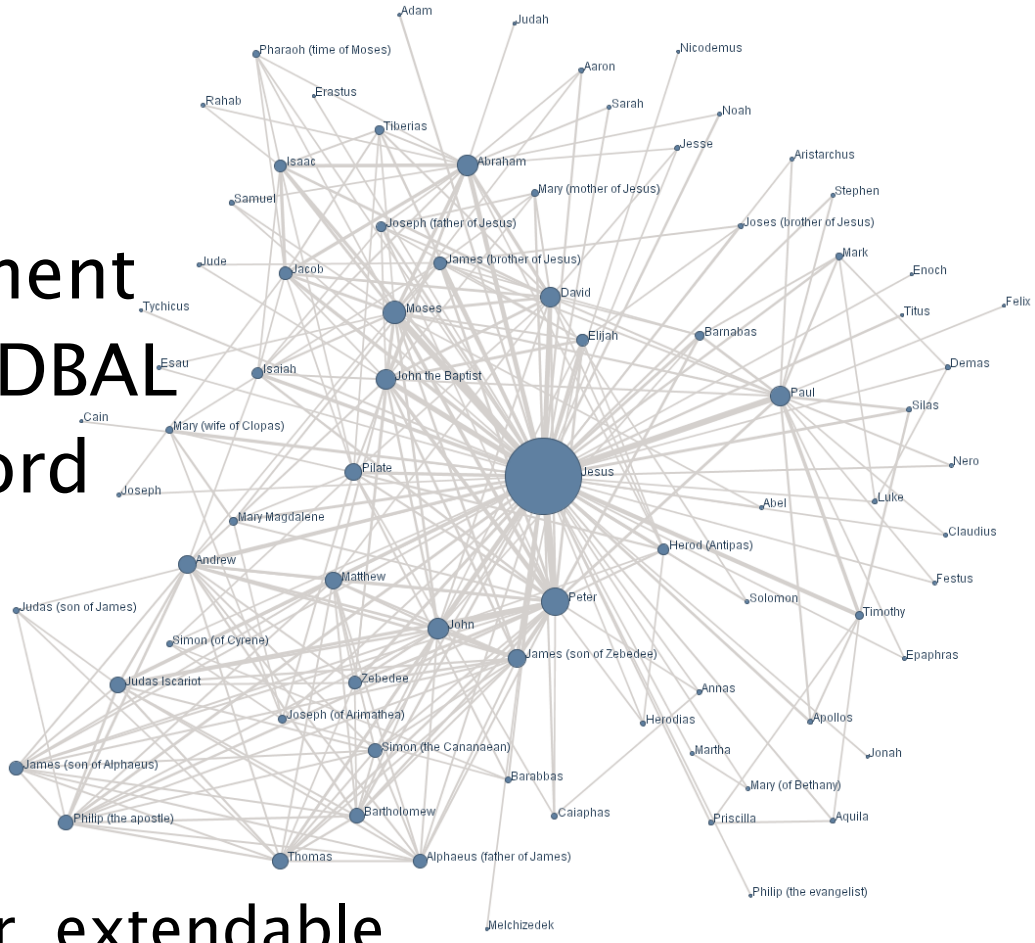
- Can be used without ORM
- Abstraction for MySQL, PgSQL, Oracle, Microsoft SQL, DB2 etc.
- PHP types mapping to DB types
- Extendable
- … more

Connection

```php
$config = new \Doctrine\DBAL\Configuration();
//..
$connectionParams = array(
    'dbname' => 'database',
    'user' => 'user',
    'password' => 'password',
    'host' => 'localhost',
    'driver' => 'pdo_mysql',
);
$conn = DriverManager::getConnection($connectionParams);
```

ORM

- Actual ORM component
- Uses Common and DBAL
- No more ActiveRecord
- Entities
  - Metadata mapping
- Entity manager
- Query language
  - Faster, cleaner, clever, extendable
  - No forcing



Entity

```php
/** @Entity */
class Model_User
{
    /** @Id @Column(type="integer") */
    private $id;
    /** @Column(length=50) */
    private $name;
}
```

EntityManager

```php
$user = new Model_User;
$user->setName('Juozas');

$em = EntityManager::create($connectionOptions, $config);

$em->persist($user);
$em->flush();
```

Querying

```
$em = EntityManager::create($connectionOptions, $config);

$query = $em->createQuery('SELECT u FROM Model_User u');
$users = $query->getResult(); // array of Model_User objects
```

ODM? Hell yeah NoSQL!!!

MongoDB, CauchDB

ODM

- Abstracts NoSQL databases
- Similar Metadata configuration
- A lot of functionality from ORM also available in ODM
  - Querying
  - EntityManager -> DocumentManager

ODM Querying

```
$dm = DocumentManager::create(new Mongo(), $config);

$query = $dm->query('find all Documents\User');
$users = $query->execute();
```

Much more!

Migration

- Migrating from Doctrine 1 to Doctrine 2
- Can be tricky
- Migrating:
  - … models is easy
  - … application code can require some major refactoring
- Do it only if it's worth it

Finishing

- Doctrine 2 will be released soon
- Most of the functionality is there
- **Used in production**
- “The library” for PHP 5.3
- Symfony, Zend Framework etc.

Questions?

Thanks!!!

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- Rate talk at http://joind.in/2105

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