Teamizer

Developing a suitable schedule and poll platform for the sports club Unihockey Lohn

team.unihockeylohn.ch

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Roadmap

1  The Problem
2  Requirements
3  Demo
4  Architecture
5  Outlook
6  Lessons learned / Conclusion
1 The Problem

- Doodle does not support scheduling in closed teams
- People do not fill in polls or don’t know the deadline
- Big mess with several Doodle links

Goals

- Get better response on polls by explicitly addressing all target persons inside a group
- Notification system that keeps the user informed
2 Requirements

• Authentication & Authorization
• Text & scheduling polls
  • Edit / open / close
• Groups
  • Rank system
• Notifications (new polls, deadlines, closed polls)
  • Email / Web
• Mobile first design (NFR)
• PHP framework (NFR)
3 Demo

Teamizer

Sign in to start your session

Email

Password

Remember Me

Sign In

Register a new account

I forgot my password
4 Architecture

Front end

• HTML5
• CSS3 / Bootstrap
• jQuery

Back end

• Symfony2
• MySQL / Doctrine (ORM)
4 Architecture - ORM

```php
/**
 * @ORM\Table(name="polls")
 * @ORM\Entity()
 * @ORM\HasLifecycleCallbacks()
 */

class Poll {

    /**
     * @ORM\Id
     * @ORM\Column(type="integer")
     * @ORM\GeneratedValue(strategy="AUTO")
     */
    protected $id;

    /**
     * @ORM\Column(type="string", nullable=false)
     */
    protected $hash;

    Defines table name
    This is an entity
    Used for some callbacks on save/delete

    This is a primary key
    Column type is integer
    Its an auto increment

    The object variable mapped to the database column

    $hash is a string and must not be null
```
$ php bin/console doctrine:schema:update --force
5 Outlook

• Third party authentication
  • Google, Facebook, ...

• Mobile Apps
  • Wrapped website
  • Notifications

• Social platform
  • Share & invite

• General
  • mobile views (improve responsiveness)
  • Keep system up-to-date
6 Lessons learned

- Requirements must be prioritized
- Working with a PHP MVC framework
- Challenging parts
  - Poll functionality
  - Symfony form builder
  - Model
6 Conclusion

- A nice working application
- Technologies
  - Symfony (PHP) vs. Rails (Ruby)
  - Front end & back end / RESTful service
- Official deployment delayed
  - team.unihockeylohn.ch
The End

Thank you for your attention

team.unihockeylohn.ch
Some additional material
4 Architecture - Webserver

Software

Apache 2 & PHP 5.4
MySQL
git

Host

Virtual Server
For best customizability
Linux Debian
4 Architecture - Symfony (back end)

- Part of the SensioLabs network
- Object-oriented PHP MVC framework
- Active open source project with many developers and contributors
- Contains many components
  - Doctrine / ORM interface
  - Twig (SensioLabs) / Template Engine
  - Swift / Mailer with SMTP support
  - and more...
4 Architecture - Symfony (back end)

Symfony Request flow

Request
- /en/nmqk4167gvxe2l
- /de/g32nkj1pj1mez5

Kernel
- /en/{id}
- /de/{id}

Controller
- PollController::showAction($id)

Response
- Template: AppBundle:Poll:show.html.twig
- Rendered view
4 Architecture - Webserver

- Client
- Internet

- File System
- Application: Symfony
- Apache
- PHP
- PHP Extensions
- MySQL Database

Operating System
4 Architecture - ORM

```php
/**
 * @ORM\ManyToOne(targetEntity="User", inversedBy="polls")
 * @ORM\JoinColumn(name="owner_id", referencedColumnName="id")
 * @Assert\NotBlank()
 * @Assert\NotNull()
 */
protected $owner;

/**
 * @ORM\OneToMany(targetEntity="Option", mappedBy="poll",
 * cascade={"persist", "remove"}, orphanRemoval=true)
 * @ORM\OrderBy({"date" = "ASC", "id" = "ASC"})
 */
protected $options;
```

- Many (polls) to one (user)
  Specify on what parameter the join should happen
- One (poll) to many (options)
  cascade on persist and remove
  orphanRemoval: If an object is removed from the collection, it should get deleted in the database
4 Architecture - Model

```
<table>
<thead>
<tr>
<th>comments</th>
<th>polls</th>
<th>options</th>
<th>participants_options</th>
</tr>
</thead>
<tbody>
<tr>
<td>id INT(11)</td>
<td>id INT(11)</td>
<td>id INT(11)</td>
<td>participant_id INT(11) (FK)</td>
</tr>
<tr>
<td>user_id INT(11) (FK)</td>
<td>owner_id INT(11) (FK)</td>
<td>poll_id INT(11) (FK)</td>
<td>option_id INT(11) (FK)</td>
</tr>
<tr>
<td>text VARCHAR(512)</td>
<td>group_id INT(11) (FK)</td>
<td>text VARCHAR(128)</td>
<td></td>
</tr>
<tr>
<td>date DATETIME</td>
<td>hash VARCHAR(255)</td>
<td>date DATETIME</td>
<td></td>
</tr>
<tr>
<td>poll_id INT(11) (FK)</td>
<td>deadline DATETIME</td>
<td>isFinal TINYINT(1)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>title VARCHAR(256)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>description LONGTEXT</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>onlyOneChoice TINYINT(1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>hasIfNeedBe TINYINT(1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>hidden TINYINT(1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>participantLimit INT(11)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>location VARCHAR(255)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>isPublic VARCHAR(255)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>lastActivity DATETIME</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>isClosed TINYINT(1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>type INT(11)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>participant_id INT(11) (FK)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>poll_id INT(11) (FK)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>user_id INT(11) (FK)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>readRight TINYINT(1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>writeRight TINYINT(1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>rank_id INT(11) (FK)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
```

```
<table>
<thead>
<tr>
<th>participants_ifnneedbe_options</th>
<th>participants</th>
<th>participants_unknown_options</th>
</tr>
</thead>
<tbody>
<tr>
<td>participant_id INT(11) (FK)</td>
<td>id INT(11)</td>
<td>participant_id INT(11) (FK)</td>
</tr>
<tr>
<td>option_id INT(11) (FK)</td>
<td>poll_id INT(11) (FK)</td>
<td>option_id INT(11) (FK)</td>
</tr>
<tr>
<td></td>
<td>user_id INT(11) (FK)</td>
<td></td>
</tr>
</tbody>
</table>
```