

# Teamizer

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

[team.unihockeylohn.ch](http://team.unihockeylohn.ch)

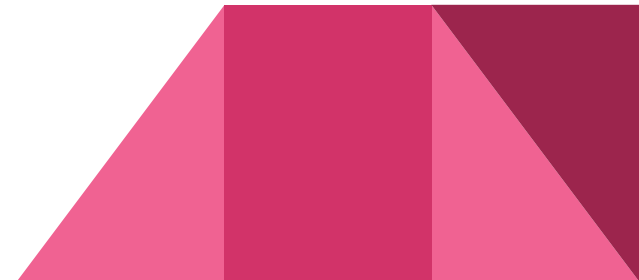
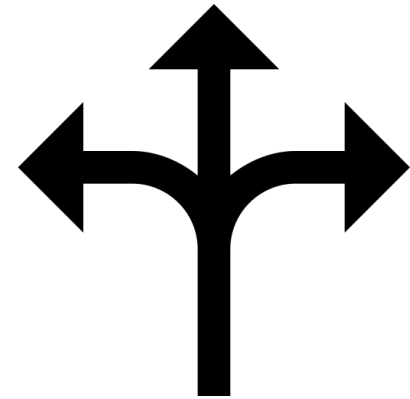
Andreas Hohler

SCG Seminar

19.01.2016

# Roadmap

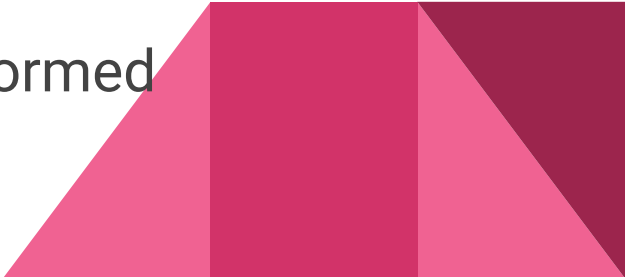
- 1 The Problem
- 2 Requirements
- 3 Demo
- 4 Architecture
- 5 Outlook
- 6 Lessons learned / Conclusion



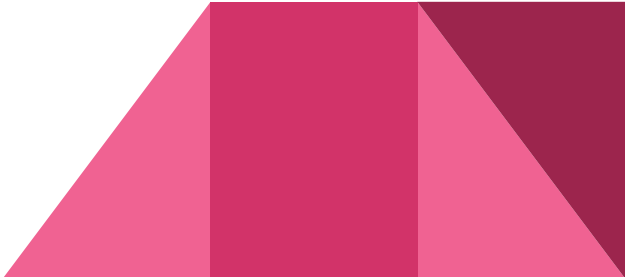
# 1 The Problem

- 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

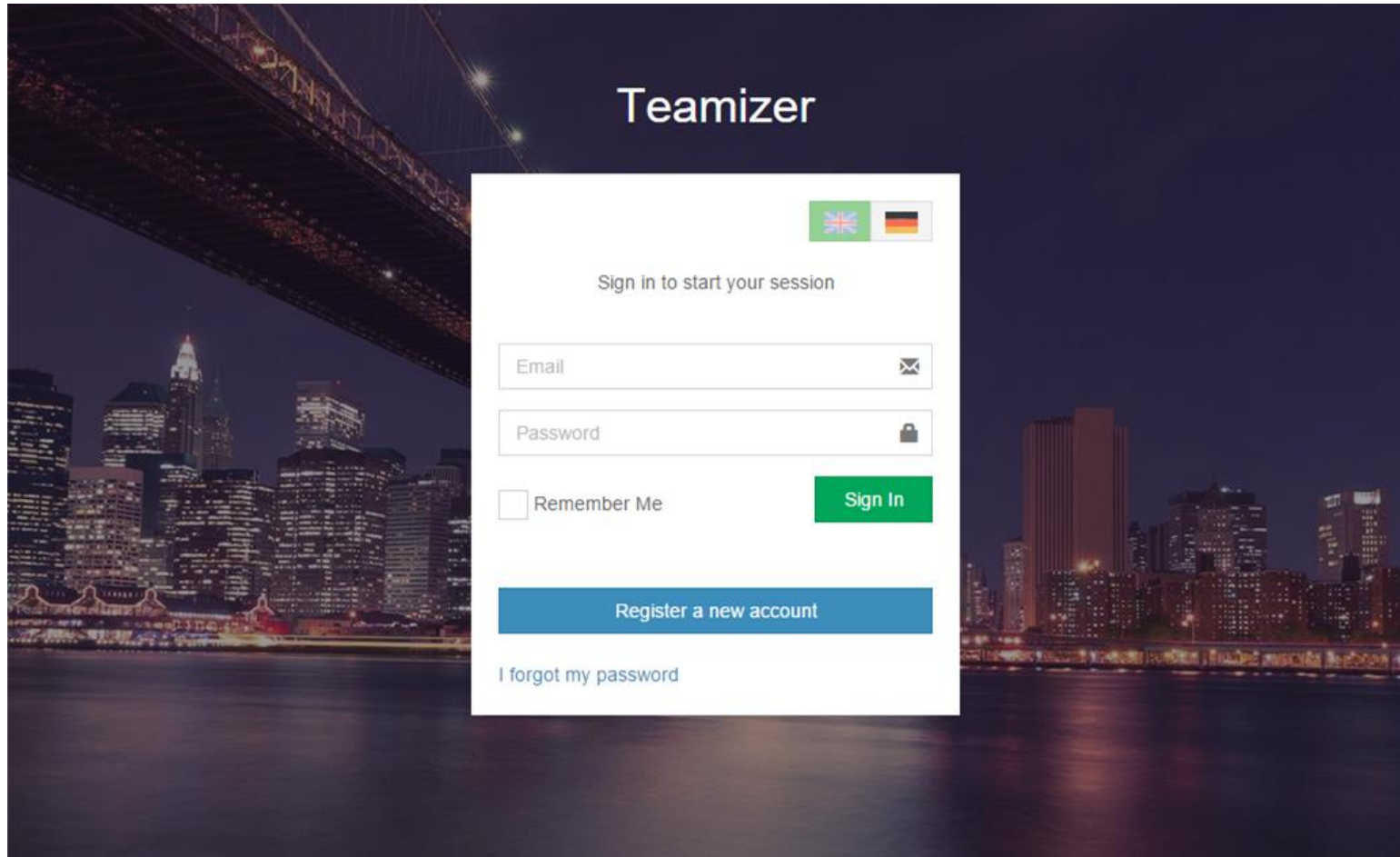
## Goals

- 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



# 4 Architecture

## Front end

- HTML5
- CSS3 / Bootstrap
- jQuery



## Back end

- Symfony2
- MySQL / Doctrine (ORM)



# 4 Architecture - ORM

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

Defines table name

This is an entity

Used for some callbacks on save/delete

```
class Poll {
```

```
/**
```

```
 * @ORM\Id
```

This is a primary key

```
 * @ORM\Column(type="integer")
```

Column type is integer

```
 * @ORM\GeneratedValue(strategy="AUTO")
```

Its an auto increment

```
 */
```

```
protected $id;    The object variable mapped to the database column
```

```
/**
```

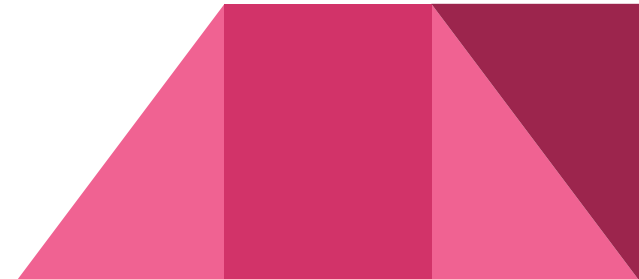
```
 * @ORM\Column(type="string", nullable=false)
```

```
 */
```

```
protected $hash;    $hash is a string and must not be null
```

## 4 Architecture - ORM

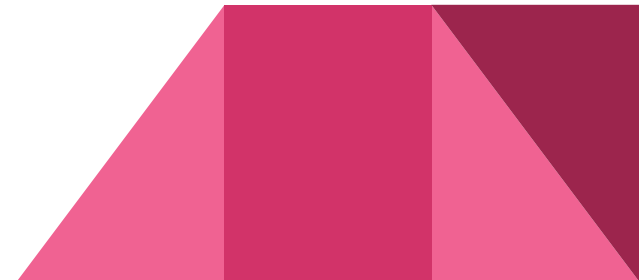
```
$ php bin/console doctrine:schema:update --force
```





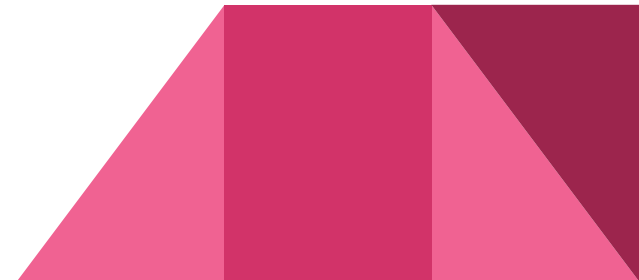
# 5 Outlook

- Third party authentication
  - Google, Facebook, ...
- Mobile Apps
  - Wrapped website
  - Notifications
- Social platform
  - Share & invite
- General
  - mobile views (improve responsiveness)
  - Keep system up-to-date



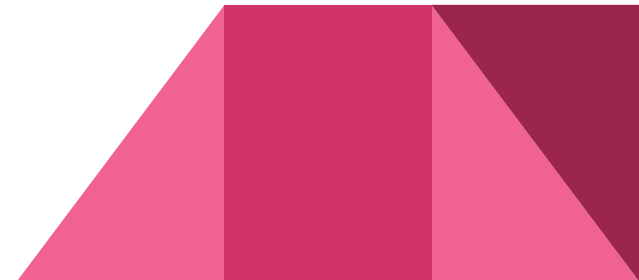
# 6 Lessons learned

- 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](http://team.unihockeylohn.ch)



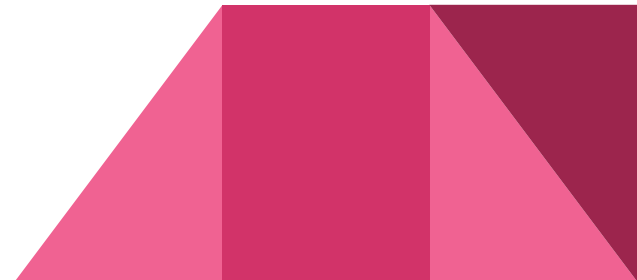


# The End

Thank you for your attention

[team.unihockeylohn.ch](http://team.unihockeylohn.ch)

Some additional material



# 4 Architecture - Webserver

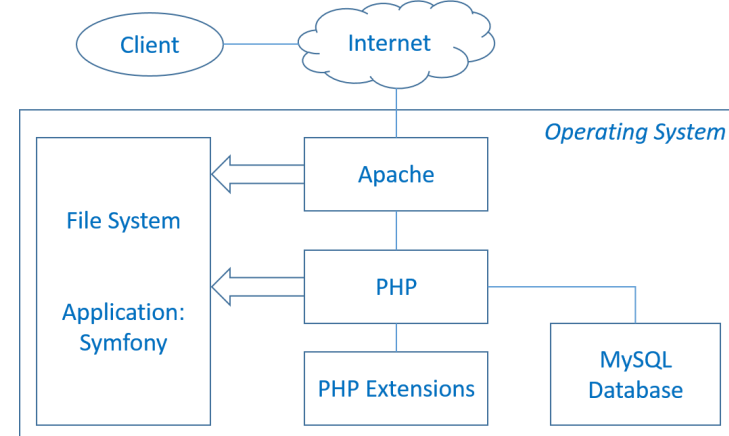
## Software

Apache 2 & PHP 5.4

MySQL

git

APACHE 2.2

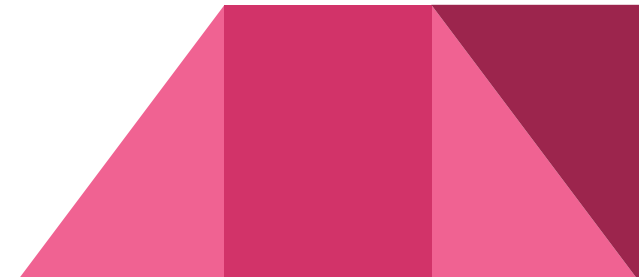


## Host

Virtual Server

For best customizability

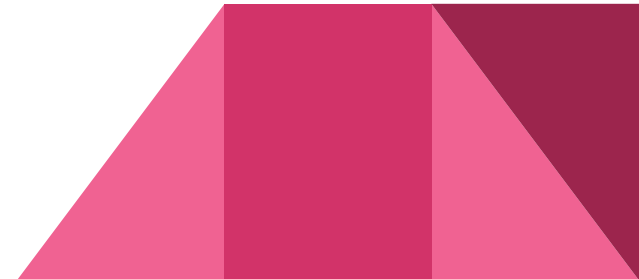
Linux Debian



## 4 Architecture - Symfony (back end)



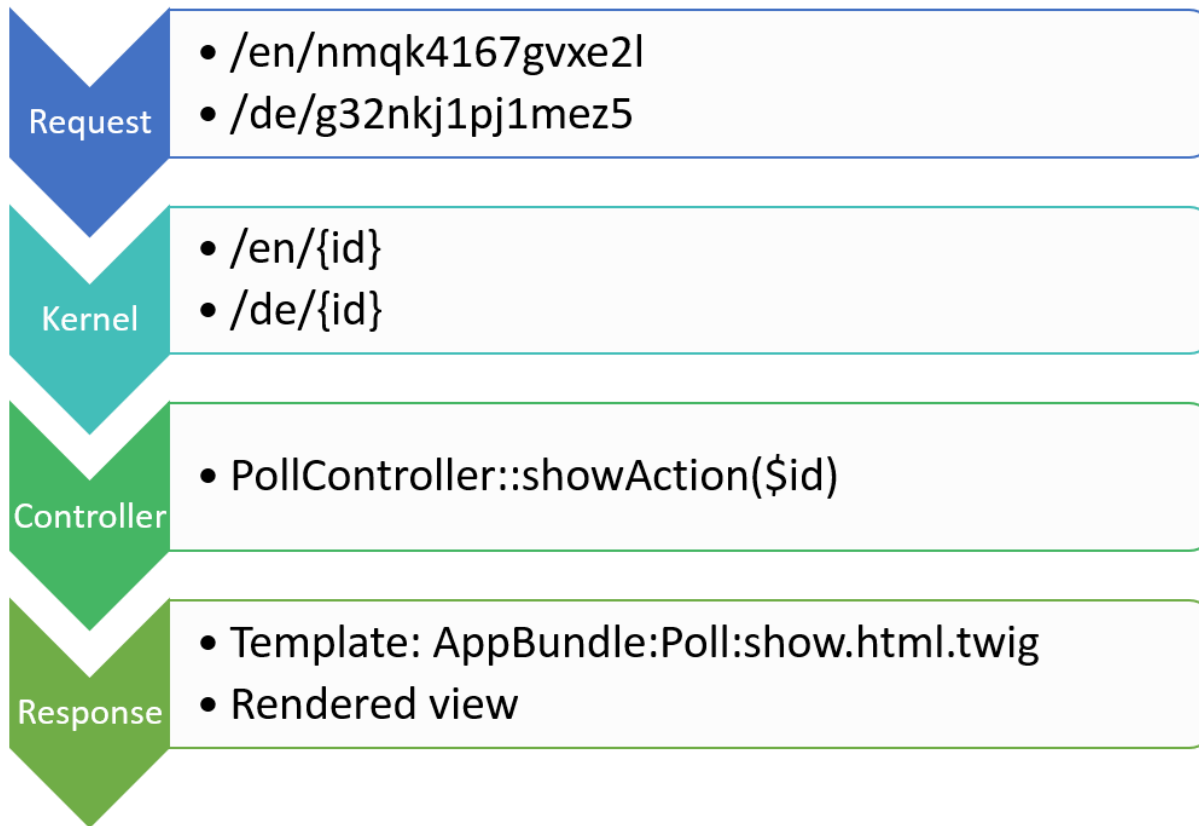
- Part of the SensioLabs network
- Object-oriented PHP MVC framework
- Active open source project with many developers and contributors
- Contains many components
  - Doctrine / ORM interface
  - Twig (SensioLabs) / Template Engine
  - Swift / Mailer with SMTP support
  - and more...



# 4 Architecture - Symfony (back end)

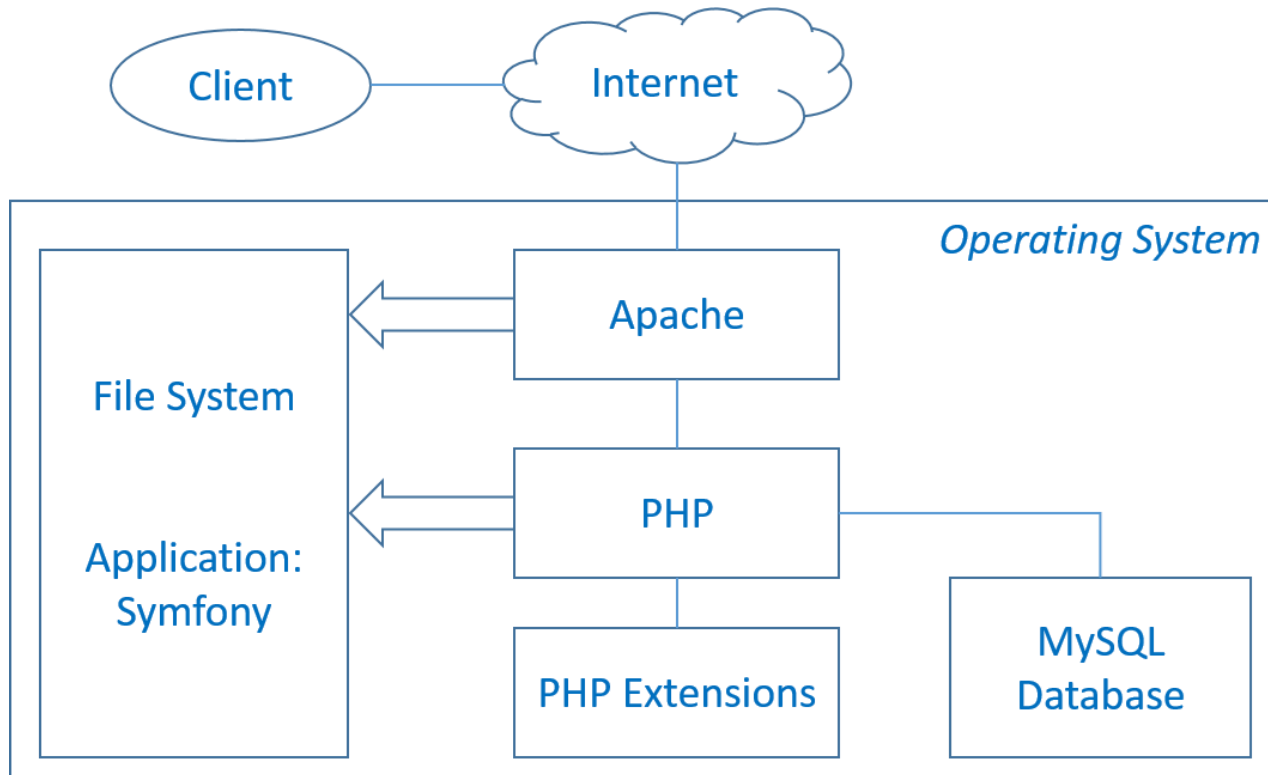


## Symfony Request flow





# 4 Architecture - Webserver



# 4 Architecture - ORM

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

Many (polls) to one (user)

Specify on what parameter the join should happen

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

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

