MVC Architecture

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Keep going ;)

Houston we have a problem

A tiny problem

Need to read /share/correct this file ?

😐

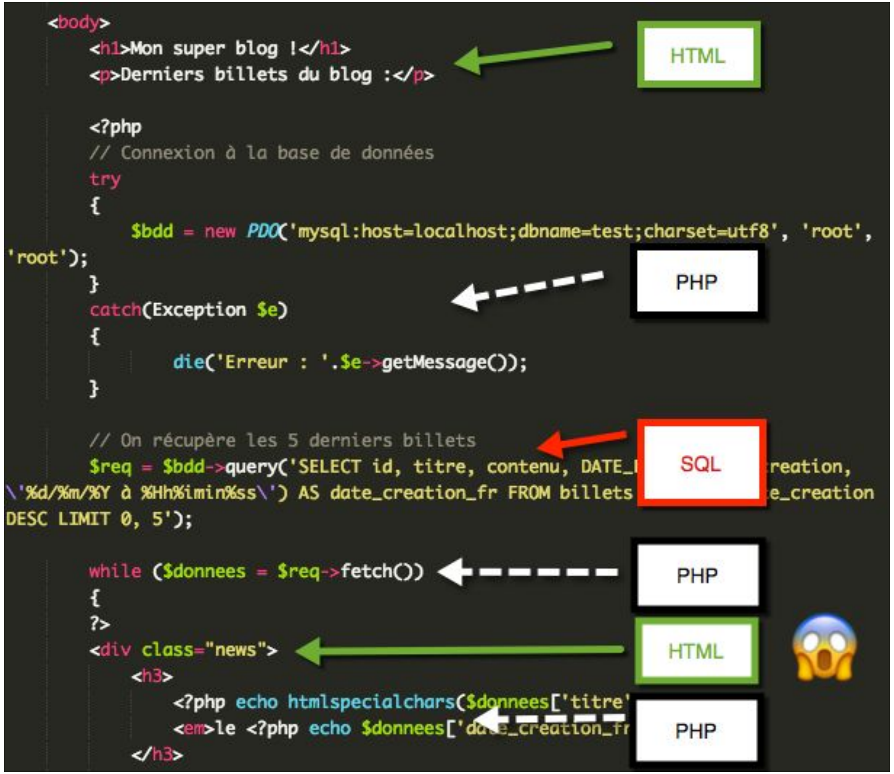
⁉️🤔

🙄 😑

😡

💩

‼️ 🔫 💣 🗡️ 💢 💀 ☠️



```
    <body>
        <h1>Mon super blog !</h1>
        <p>Derniers billets du blog :</p>

        <?php
        // Connexion à la base de données
        try
        {
            $bdd = new PDO('mysql:host=localhost;dbname=test;charset=utf8', 'root',
'root');
        }
        catch(Exception $e)
        {
                die('Erreur : '.$e->getMessage());
        }

        // On récupère les 5 derniers billets
        $req = $bdd->query('SELECT id, titre, contenu, DATE_                reation,
\'%d/%m/%Y à %Hh%imin%ss\') AS date_creation_fr FROM billets                e_creation
DESC LIMIT 0, 5');

        while ($donnees = $req->fetch())
        {
        ?>
        <div class="news">
            <h3>
                <?php echo htmlspecialchars($donnees['titre'
                <em>le <?php echo $donnees['da e_creation_fr
            </h3>
```

A clean code -> source = Valeriya

Structure → Goal

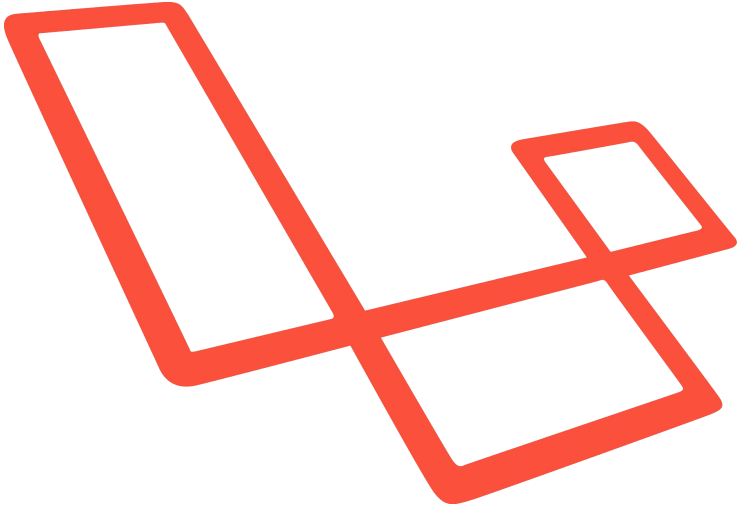
Structure

- decoupled
- modular
- documented
- English PLZ
- make it clear !

Goal

- reusable
- co-working
- scalable
- maintainable

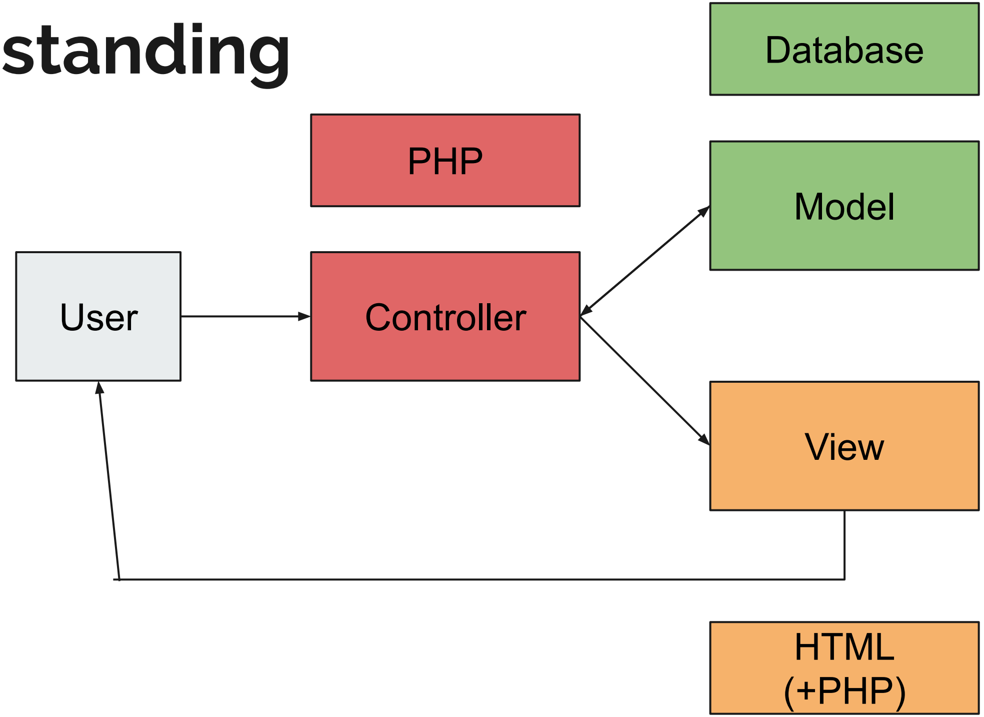
A solution : MVC (obligation ?)



MVC

Definition / understanding

- Model
- View
- Controller



Understanding : example -> a simple model

```
function getComments($postId)
{
   $db = dbConnect();
   $comments = $db->prepare('SELECT id,
author, comment,
DATE_FORMAT(comment_date,
\'%d/%m/%Y à %Hh%imin%ss\') AS
comment_date_fr FROM comments WHERE
post_id = ? ORDER BY comment_date DESC');
   $comments->execute(array($postId));

   return $comments;
}
```

```
function dbConnect()
{
   try
   {
      $db = new
PDO('mysql:host=localhost;dbname=test;cha
rset=utf8', 'root', 'root');
      return $db;
   }
   catch(Exception $e)
   {
      die('Erreur : '.$e->getMessage());
   }
} //notice no ?> , english , human readable
```

Understanding : example -> a simple model

```
<?php
function getPosts()
{
   $db = dbConnect();
   $req = $db->query('SELECT id, title,
content, DATE_FORMAT(creation_date,
\'%d/%m/%Y à %Hh%imin%ss\') AS
creation_date_fr FROM posts ORDER BY
creation_date DESC LIMIT 0, 5');

   return $req;
}
```

```
function getPost($postId)
{
   $db = dbConnect();
   $req = $db->prepare('SELECT id, title,
content, DATE_FORMAT(creation_date,
\'%d/%m/%Y à %Hh%imin%ss\') AS
creation_date_fr FROM posts WHERE id = ?');
   $req->execute(array($postId));
   $post = $req->fetch();

   return $post;
}
```

Understanding : example -> a simple controller

```
<?php
require('model.php');

if (isset($_GET['id']) && $_GET['id'] > 0) {
   $post = getPost($_GET['id']);
   $comments = getComments($_GET['id']);
   require('postView.php');
}
else {
   echo 'Erreur : aucun identifiant de billet
envoyé';
}
```

Understanding : example -> a simple view

```
<!DOCTYPE html>
<html>
  <head></head>
  <body>
    <h1>Mon super blog !</h1>
    <p><a href="index.php">Retour à la liste
des billets</a></p>

    <div class="news">
      <h3>
        <?= htmlspecialchars($post['title']) ?>
        <em>le <?= $post['creation_date_fr']
?></em>
      </h3>
```

```
... some code
    <?php
    while ($comment = $comments->fetch())
    {
    ?>
      <p><strong><?=
htmlspecialchars($comment['author']) ?></strong> le
<?= $comment['comment_date_fr'] ?></p>
      <p><?=
nl2br(htmlspecialchars($comment['comment']))
?></p>
    <?php
    }
    ?>
  </body>
</html>
```

Understanding : example -> a simple view template

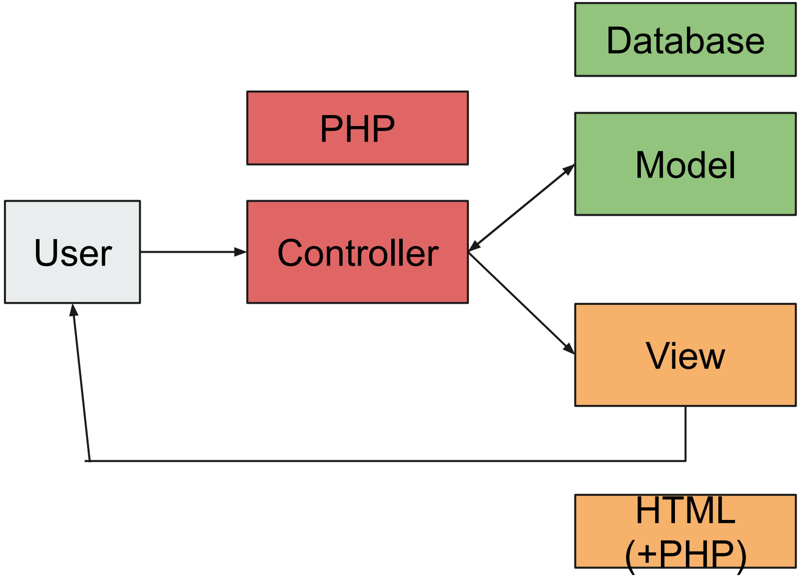
Template

```
<!DOCTYPE html>
<html>
  <head>
    <meta charset="utf-8" />
    <title><?= $title ?></title>
    <link href="style.css" rel="stylesheet" />
  </head>

  <body>
    <?= $content ?>
  </body>
</html>
```

Content

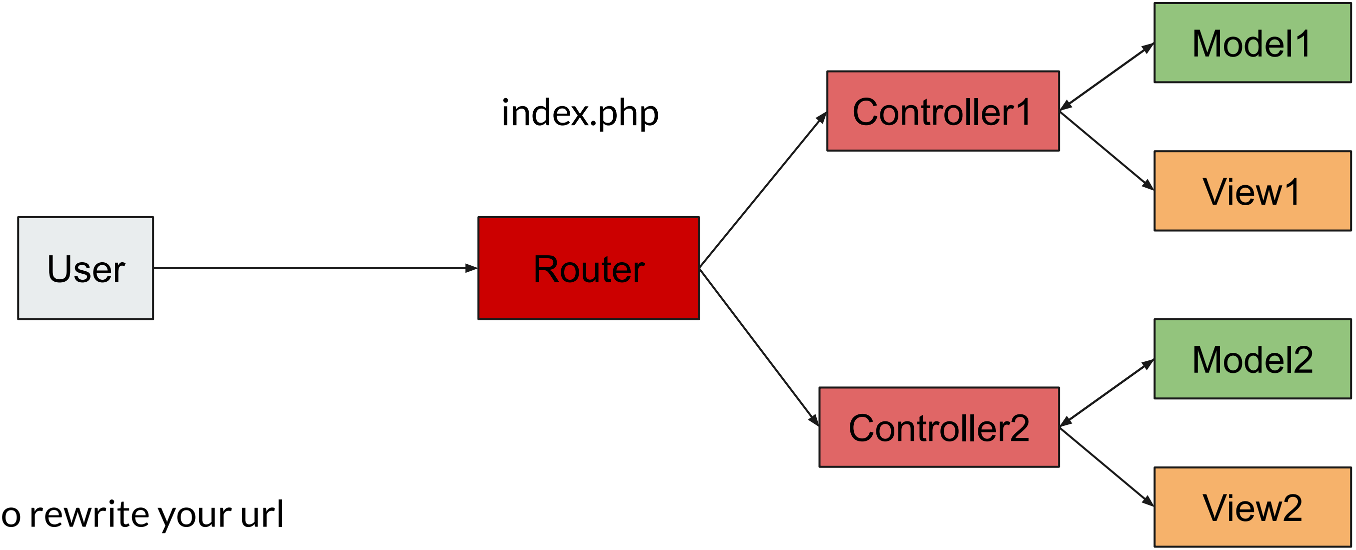
```
<?php $title = 'Mon blog'; ?>

<?php ob_start(); ?>
<h1>Mon super blog !</h1>
<p>Derniers billets du blog :</p>


<?php
while ($data = $posts->fetch())
{
?>
  <div class="news">
        //some code mixing html (and php)
<?php $content = ob_get_clean(); ?>
<?php require('template.php'); ?>
```

Make it better : another *tiny* problem



3 files for each functionality
…. and precise a controller for each ….

index.php?action=controller1



index.php

User

Router

Controller1

Model1

View1

Controller2

Model2

View2

index.php?action=controller2

Dont forget to rewrite your url

MVC OOP (for English day :P)

A quick reminder (--> controller)

```
class Personnage{
        //definition of attributes ex

        private $_id, $life;
        //definition of setters and getters

        public function id(){
                return $this->_id;
        }

        public function setId($id){
                //sanitize id an then
                $this->_id = $id;
        }
}
```

Hydratation

```
$donnees = [
        ‘id’ => 1,
        ‘life’ => 100
];
```

Dont forget to adapt your constructor

```
class Personnage{
        public function hydrate(array $donnees)
        {
                foreach ($donnees as $key => $value)
                {

                        $method = 'set'.ucfirst($key);
                        if (method_exists($this, $method))
                        {
                                $this->$method($value);
                        }
                }
        }
}
```

Use a manager (--> model) CRUD

```
class PersonnagesManager
{
 private $_db; // Instance de PDO.

 public function __construct($db)
 {
  $this->setDb($db);
 }

 public function add(Personnage $perso)
 {
 }

 public function delete(Personnage $perso)
 {
 }
public function get($id)
 {

 }

 public function getList()
 {
 }

 public function update(Personnage $perso)
 {
 }

 public function setDb(PDO $db)
 {
 }
}
```

Any questions ?