

ITMD 562 : Web Application Development

Final project

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Project description

The final project is about to create a CRUD web application thanks to a PHP framework. I chose to use Symfony because we saw how to configure it in class.
I created an application which is actually an album where you can update your images, see them, add an effect to them and then download them by using the html page. I also added some security with a Login form.

Development environment

Personally I'm using the IDE PhpStorm as an editor because it's really easier for the setters and getters and also to code quickly. As I said I chose Symfony as a PHP framework.
For the database I'm using Doctrine ORM which is provided with the framework. I just configured Doctrine to use a PDO_Sqlite driver.

Otherwise I'm on Windows 10, I'm using Mozilla Firefox to see my application running and I installed PHP v5.6.12.

Installation instructions

We saw how to configure Symfony for windows during class but I had to change some others parameters to run the application.

First, in the php.ini file, I had to uncomment "extension=php_fileinfo.dll" to be able to upload the picture because I'm doing a check to be sure that the user is uploading only documents with a

format png or jpeg (Image formats).

Otherwise we also need to change the config.yml file which is in app/config in the symphony project folder. Indeed, as we want to use SQLite we have to modify the database driver. All we have to do is described in config.yml at the line 62.

I also used a symphony bundle to deal with the picture. The bundle is called LiipImagineBundle and allow me to put the picture in miniature in the welcome page for example. To install it I used the tool composer. You don't have to install them to run the application as everything is already included now in the app folder. However, if you are interested about how do it, this is the process:

To install composer (on windows):

- Open the command windows
- Go into your symfony project
- Write: `php -r "readfile('https://getcomposer.org/installer');" | php`

Once composer installed, you can use it to install LiipImagineBundle:

- Go into your symfony project
- Write: `php composer.phar require liip/imaginary-bundle`

Finally, to be able to login you need the login and password:

Login: admin

password: itmd4562

By doing this you will be connected with the role "Admin" and will be able to create a new user with the username and password you want. The password is then hashed in the Database.

Insights and Results

I'm glad of my application because I did all I wanted to do. It took me a long time to understand all the logic of symfony. It was hard to understand how work the twig pages, and how work the links between the controller and the view. Once I understood it, I began to develop my application.

I tried to exploit the most I could the framework. I learned how to use Doctrine for the Database, twig for the view, I use a symfony bundle for scope the pictures, I use the symfony Security controller for the authentication process and I use the routing.yml file to root all my views.

I succeeded to manage the users with the database. On the app you can add a User (I didn't do the delete) and then access to the app via this new user. I restrained the access of the AddUser function for the Admin only.

Here are some screens of my application:

Invalid credentials.



Login

Login

Figure 1 Login page

Welcome to PictureShop

My album

Name	Date	
sunset	2015-12-04 15:59:26	
Surf	2015-12-04 16:30:31	

[Add a picture](#) [Add a User](#) [Logout](#)

Figure 2 Welcome page

Add a Picture

Please set the form to add an image to your album.

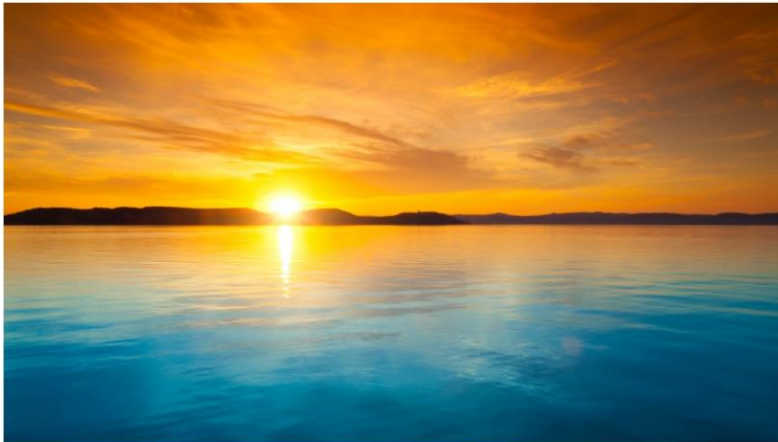
Be aware that you can only upload a jpeg or a png format

No file selected.

Figure 3 Upload page

See a picture

From here you can add an effect on your picture. If you like it, you can download your custom picture from the page by doing right click + "save image as"



Effects:

Figure 4 View page

Add a User

Please set the form to add a User.

Figure 5 Add a user page

References

I used a lot the book of symfony: <https://symfony.com/doc/current/book/index.html>