

MY_SHOP

A FULL WEB PROJECT!



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You are to develop a full web application for online sales, with a front and back office.



Submit your work inside a repository named `myshop`.



This step-by-step project uses most of the concepts that you have learned during the pool and combines them. Projects are less restraining than exercises, don't hesitate to add functionalities/bonuses. Have fun and keep coding!



Write a **README.md** to improve the quality of your project's delivery.
Your code **MUST** be **object-oriented**. So, it is expected from you to use **classes**.
A **database** is provided: use it as a reference and/or edit it to best suits your needs.
Keep a strict coherence of **error management, ergonomics, accessibility, and design**.
No style attributes inside the HTML: put all your CSS in a dedicated **CSS file**.

First page(s)

Create the main page of your site: `index.php` is accessible to anyone on your website.

In order to buy some stuff, users must be connected as a client. Therefore, you must implement:

- ✓ a registration form in a `signup.php` page. It allows anyone to create a new user in the database, with (at least) a username, an email and a password.
- ✓ a connection form in a `signin.php` page. The credentials pair is checked, and if correct, the user is redirected (to the shop or the admin interface).



If any field is incorrect, redirect the user to the form and display **explicit error messages**. Think about all cases: email badly formatted, login already existing, empty password, ...



Beware to security. What is the best way to store a password? What is a SQL injection?

Finally, implement a logout button somewhere in your `index.php` page and ensure that a reconnection is not possible after disconnection without a new authentication on the server.



Have all cookies been deleted?

The sign-in and sign-up pages could look like this (or as you fancy!):

LOGIN	SIGN UP
Email	Email
<input type="text"/>	<input type="text"/>
Password	Password
<input type="text"/>	<input type="text"/>
<input checked="" type="checkbox"/> Remember me?	
<input type="button" value="LOGIN"/>	<input type="button" value="SIGN UP"/>
Forgot Password?	<div>OR</div>
<div><input type="button" value="G"/> <input type="button" value="f"/> <input type="button" value="in"/></div>	<div><input type="button" value="G"/> <input type="button" value="f"/> <input type="button" value="in"/></div>
Need an account? SIGN UP	Already a user? LOGIN

Administration page(s)

In order to manage the website and its contents, you need an admin page: `admin.php` is accessible **only** after a user has logged on with **administrator privileges**.



At least **3 menus** should be in the admin interface: **users**, **products** and **categories**. For each, an admin is able to **create**, **read**, **update** and **delete** anything (s)he wants. Here is the list of actions any admin user can do:

- ✓ users:
 - display one or more or all users ;
 - add a user ;
 - edit a user ;
 - delete a user.
- ✓ products:
 - display one or more or all products ;
 - add a product ;
 - edit a product ;
 - delete a product.
- ✓ categories:
 - Display one or more or all categories ;
 - Add a category ;
 - Edit a category ;
 - Delete a category.

Products have a **name**, a **description**, a **price** and a **picture**. They can have multiple categories.

Categories can contain both other categories and products. There should be no limit on category level. For instance, *furniture* can contain *chair*, itself containing *wooden chair* and *plastic chair*.



Look out for “one to many” database relationships.

The admin page could look like this:

[Products](#) [Categories](#) [Users](#)

Add new

Product	ID		Category	Actions	
Macbook pro 16	#123-456ABC		Apple	Edit	Delete
Macbook pro 16	#123-456ABC		Apple	Edit	Delete
Macbook pro 16	#123-456ABC		Apple	Edit	Delete
Macbook pro 16	#123-456ABC	123	Apple	Edit	Delete
Macbook pro 16	#123-456ABC	123	Apple	Edit	Delete
Macbook pro 16	#123-456ABC	123	Apple	Edit	Delete
Macbook pro 16	#123-456ABC	123	Apple	Edit	Delete
Macbook pro 16	#123-456ABC	123	Apple	Edit	Delete
Macbook pro 16	#123-456ABC	123	Apple	Edit	Delete
Macbook pro 16	#123-456ABC	123	Apple	Edit	Delete

< 1 2 3 4 ...10 >



You must handle the errors on the CRUD's actions.
Make sure that the navigation within your website is clear and simple.
Check the admin page(s) are only accessible to users with admin privileges.
Test your security by trying, as a client, to create, update or delete something.



Client page(s)

Once you finished the administration page you will display all the products on your index page.

Remember that this page is intended for your customers, it is therefore essential that it is easy to use to the greatest number. Focus on layout and design.

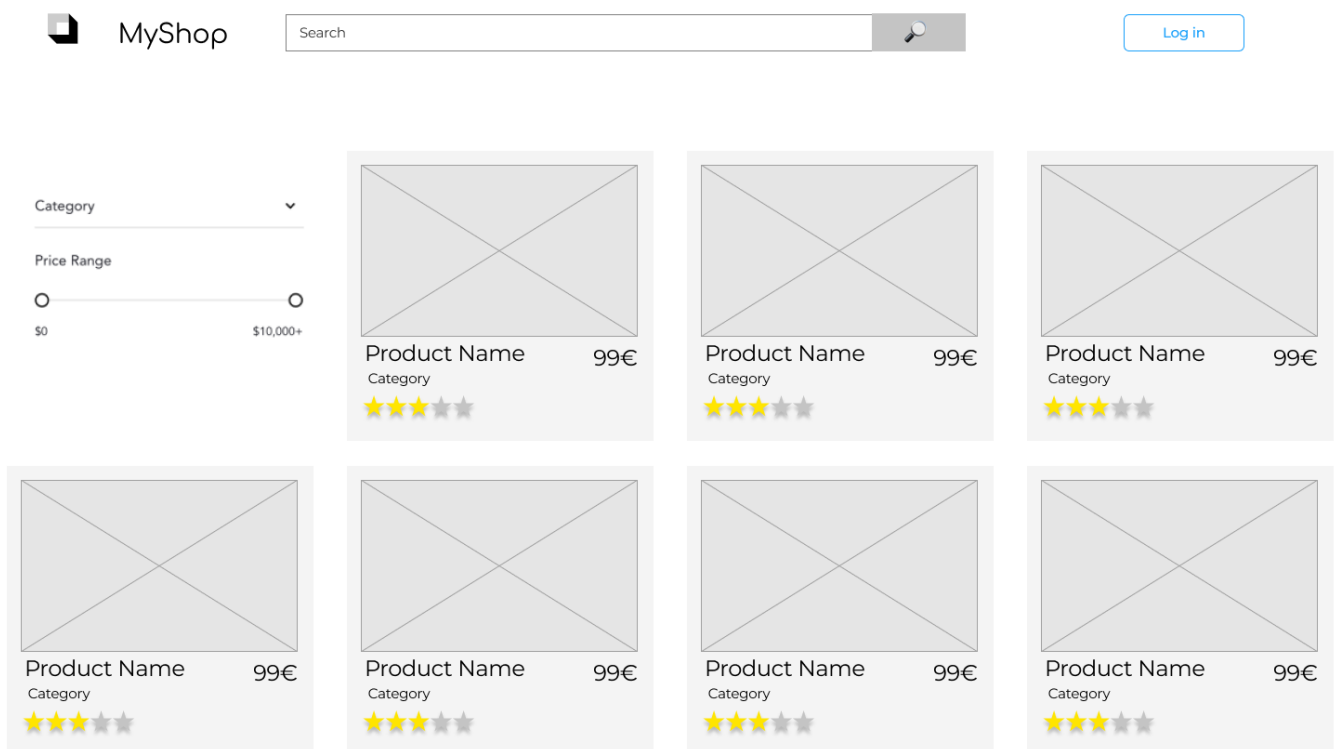
Make sure your page is responsive. Does the display work on mobile phone screens?

Check the loading time of your page and ask yourself how to speed it up.

Does it make sense to display a hundred products at once?

Do every image must be in 4k? What are thumbnails?

The client page could look like this:



Make sure your code is valid W3C.
And do NOT forget about SEO.

Filters

For a better the users' experiences, you decide to implement some sweet features:

- ✓ a search bar, to filter (at least) products by name, description or category ;
- ✓ a range filter, to get only products matching a price included between two values ;
- ✓ some buttons, to sort the results by alphabetical order or/by [in|de]creasing prices.



Users can be clients or admins. Both need these features.



Feel free to add other filtering features (on categories, products and/or users).
You can get inspiration from any famous e-commerce website.

Bonus

Once you finished the main parts of this project, you can improve it in many ways, including:

- ✓ sign-in via the use of APIs (Google, Facebook, ...) ;
- ✓ get back (or reset) a forgotten password ;
- ✓ a "share" functionality from the product page ;
- ✓ upload an avatar and display it once connected ;
- ✓ a chatting service, for support or between clients ;
- ✓ add some grades and/or reviews to the products ;
- ✓ create, update or delete in bulk (users, products or categories) ;
- ✓ more filters, search tools and browsing components ;
- ✓ history of visited products or categories ;
- ✓ payment methods (credit cards, digital wallets, mobile, crypto!) ;
- ✓ anything you consider relevant.



Implement every mandatory functionalities before doing any bonus.

