

COMP 3015

Introduction to Web Applications
with PHP

Final Project

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The goal of this project is to build a simple web application with the skills learned throughout the course.

This project is open book – all materials provided throughout the course and materials found on Internet sources, such as Google and StackOverflow, are fair game. Everything you need to finish the project has been covered in class such that you should not need to use external sources though you are more than welcome to.

Start with the provided starter kit. There's an `index.php` as an example of all components you will need. There's also an example `product.php`.

To implement the features such as Search, Login, Downvote, etc. you can have as many or as little other PHP files as you see fit.

To store data, you can have as many or as little database tables as you see fit; you can store everything in one table or many tables. Include your SQL table schemas in your submission.

This project is not prescriptive by design.

Be sure to remove the example panels before submission. Auto -1 if any example panels are left in.

Do not use JavaScript/CSS to hide/track/manipulate your data. This will result in an automatic 0. This is a PHP course.

Overview

The web application is a simple listings system. A user will visit the website (`index.php`), browse items for sale and put up their own items for sale.

They also have the option to sign up to unlock the Pin feature!

The Basics – 5 marks

- Users visiting the website will see all items for sale under the Items for Sale section
- Clicking on the Picture of an item will take the user to a `product.php`
- The product page does nothing but pull up information on that clicked-on item
- Clicking on the Picture of an item also adds that item to the Recently Viewed list
 - Have a maximum of 4 items under Recently Viewed
- If users refresh or close+reopen the browser, that recently viewed list should be retained

Login, Logout, Sign Up – 5 marks

- Users can signup/login – example forms are provided
- Signing up or logging in or logging out does not reset their Recently Viewed items
- Logged in users can delete their own items but not others
 - Their own items will have the delete icon
 - Items by other users will not have the delete icon
- Logged in users can Pin/Unpin items that they like
 - Pinned items are highlighted as yellow-looking panels
- Only logged in users can upload items

Search – 5 marks

- Search performs a partial string match on the title or description of an item
 - Any user can search – logged in or not
 - Update the Items for Sale section to show only the partially matched items
- The user should be able to copy and paste their URL to a friend to yield the same search results
 - Got time? Implement the Shareable link button next to the Search button – copy the shareable link to the clipboard. 1 bonus mark.

Sorting – 5 marks

- Under Items for Sale, Pinned items are always displayed first before all other items
 - No other sorting is necessary for Items for Sale
- Under Recently Viewed, items are sorted by user first, then price
 - All of Alex Akins' items show up before Jane Smith's items
 - Alex Akins' items are sorted most expensive to least expensive
 - Jane Smith's items are sorted most expensive to least expensive

Downvote and Expiry – 5 marks

- Logged in users can downvote any item
 - Don't show the downvote icon if the user isn't logged in
- If an item has more than 5 downvotes, it will no longer be displayed
- If an item has been posted longer than an hour ago, it will no longer be displayed
- An item no longer displayed should no longer be accessible through the `product.php` page neither

Validations – 5 marks

- A user can only downvote an item once
- Hiding an icon isn't enough
 - If a user can't see the downvote icon, going directly to the link shouldn't work either
 - If a user can't see the delete icon, going directly to the link shouldn't work either
- Any type of input must be validated *reasonably*
 - Should you allow < > in an email address, first name, or price tag? Probably not.
 - Should you allow a 60gb .exe file as an item picture? Probably not.
 - Item descriptions can have , or . characters
 - GET/query parameters count as input as well

Notes

- Don't worry about duplicate email addresses or duplicate item titles/descriptions
- You can have as many PHP files as you see fit, or do everything in one `index.php` file and one `product.php` file
- You can store the names, items, and votes for each in as many database tables as you see fit
- Still got time? Do another version of this project but with the Laravel framework. No bonus marks.
- Really bored? Rewrite the front end in React/Vue/Angular and have PHP/Laravel backed by MySQL to respond to Ajax requests with JSON – Automatic A, email me before attempting this.