

ShowCase

Internet and Web Systems 2

Project Report

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Abstract:

There are lot of photos of us or friends or family which needs to be saved as memories. We also wish these memories could be accessed or share easily online. In this Project I have created a simple website, which stores the images, displays it and also share it so that community or family members can view them and cherish those memories, by storing the on your own server. In this project a User showcases his work or images to the team or shares his memories with other members of the group. The primary focus is on the image gallery that is Showcase.

Introduction:

There are plenty of websites online where we can upload images, view them, share them and also perform various other tasks. On the similar path, I wanted to implement or develop a website targeting only a specific set of users like a group, a family, a team, a community and a company. In current mobile friendly world, most of the files are stored on Cloud Servers. But these are not completely trustworthy, so I decided to store images on our own server, wherever the website is hosted. This project's main focus is on displaying images, maintaining privacy for users who have uploaded and also the permission to upload or delete the images. Here the image gallery display is the main focus, have used the black and white theme for the project.

Design and Implementation:

For this project, I have done a lot research on what technology stack to choose and why? Started off with working on cloud databases like S3, Angular, and Docker which did not provide the required result. I then changed to Firebase and Angular based approach which resulted in a simple website, but the data was on cloud. Since we considered data on the cloud not to be safe, I then changed my focus towards to storing on the university server or the local server. To achieve this I had to go for simple, tried and tested technologies rather than relatively new technologies. This led me to choose, php, JavaScript and Sql to achieve this. Below is the final technology stack used:

Technology Stack:

- PHP
- MySQL

- JavaScript
- JQuery
- XAMPP
- Bootstrap
- HTML
- CSS

Using the above technologies I was able to develop a website for storing, viewing (gallery) and sharing memories (images).

The project contains

- Home page: Displays the home screen.
- Login page: Displays the login form with login and password fields.
- Register Page: Displays the register form for the user to register.
- Profile page: Displays the profile details of the user
- Edit Profile page: Displays the fields of the profile page that can be edited by the user
- Public gallery page: Here all the images upload by the registered users of the website and given privacy of the image as public, is shown in this page.
Private gallery page: Here only the images upload by the current logged in user of the website, regardless of the image privacy (both public and private) are shown in this page:
- Upload Page: Here logged in user can upload images (20 at a time), provide a name to each image and select its privacy.

Have used the black and white theme for the project, when we hover over the image, the colored version is visible and then the image can be enlarged to the original size it was uploaded.

Two tables have been created in the database namely tbl_gallery- to store the data regarding the images and users table to store the users data.

Deployment of the system.

Initially it was aimed to deploy this project on the weblab server, due to few issues which I was facing with my system and not able to access database from my system, I was not able to upload on weblab server. I have deployed on the local server, using the XAMPP tool which has inbuilt Apache web server, MySQL and file server running simultaneously. Further I would be deploying the same on the Weblab server by resolving the issues that are occurring. The database was created using localhost/phpmyadmin. Then we import the SQL queries and make the required changes in the config.php file.

Testing:

This project has been tested at every instance, like validating users, validating the images uploaded, checking if the email exists or not, whether the image uploaded as private is visible in private or

not, whether the images uploaded by a specific user has the permission to delete the image uploaded. Other users cannot delete the images uploaded among various others.

Limitations of the system:

There are a few limitations in this project. Currently only 20 images can be uploaded at a time. Logged in user should manually logout.

Conclusion and Future Work:

This project helped me understand, decide and see what kind of technologies would be suitable for certain type or requirements. This enabled me to understand in length about each task performed. Have face a lot of hurdles in developing the project, but helped understand more better way at every instance of solving the error. I may not have reached, what I have planned initially, but I am really satisfied that I learnt a lot through the process, and further would easy to continue.

In future, as an extension of the current project, I would,

- Deploy the project on weblab server
- Download of the image (instead of saving image by right clicking on the mouse)
- Use Instagram style filters while uploading images
- Create a group based approach, so that multiple groups can use the website simultaneously and one groups image not overlapping with other group members image. Providing a group creator, admin access to invite and approve the user request.
- Image manipulation, after the image is uploaded, which can be done by rendering images on the canvas.
- Multi step authentication
- Sharing private images using mail or other group members
- Enabling comments by users for images uploaded.
- Beautifying the image gallery with faster access by displaying compressed images as thumbnails and fetching the original size images when enlarged.

References:

To develop this project, I have referred lot of websites, tutorials, YouTube videos, extensively used stack overflow for every task that I have worked on. I have faced lot of issues, errors, etc. which enabled me to research more and more. I have mentioned a few of the references, that were stored in my recent history and most of them were deleted when I upgraded my system. I have not copied the code from any source completely or as is, but have used methods, functions, syntaxes explained in the videos or tutorials to my own requirements. For every task I wanted to do, I have referred online and implemented in my own way.

Below are some of the references:

1. <https://teamtreehouse.com/community/php-code-question>

2. https://stackoverflow.com/questions/32021593/how-to-use-pdo-variable-in-another-class?utm_medium=organic&utm_source=google_rich_qa&utm_campaign=google_rich_qa
3. <https://github.com/ThingEngineer/PHP-MySQLi-Database-Class/blob/master/readme.md> (used this link to learn on how to query the objects and use SQL)
4. <https://www.experts-exchange.com/questions/29039674/JSON-response-using-Ajax-jQuery-PHP.html> (to define submit function)
5. <https://www.jqueryscript.net/demo/Fullscreen-Responsive-Photo-Gallery-Plugin-Gallerybox/>
6. <https://www.jqueryscript.net/gallery/Fullscreen-Responsive-Photo-Gallery-Plugin-Gallerybox.html> (jquery to fetch and display images)
7. <http://jqueryui.com/>
8. <https://www.youtube.com/watch?v=QjJpxDkIPIQ> (understand scripting for gallery)
9. <https://stackoverflow.com/questions/22197640/change-cursor-style-when-drag-and-drop-in-css>
10. Larry Ullman. 2010. Effortless E-Commerce with PHP and MySQL (1st ed.). New Riders Publishing, Thousand Oaks, CA, USA. (referred this book for understanding on how to code php functions effectively)
11. http://mywebmymail.com/?page_id=133 (To refer on how to display the enlarged image, compress and manipulate images (which is yet to be implemented)
12. https://stackoverflow.com/questions/26011612/create-mysql-table-in-phpmyadmin-sql-window?utm_medium=organic&utm_source=google_rich_qa&utm_campaign=google_rich_qa (creating a database and importing on php my admin)
13. <https://www.dunebook.com/tutorial-creating-a-photo-gallery-system-with-laravel/> (will be referring this to build group(album) based image gallery for future implementation)
14. <https://www.youtube.com/watch?v=Pz5CbLqdGwM> (Have refered and used some part of the code for creating login and register page)
15. <http://form.guide/php-form/php-registration-form.html> (referred this for validations)
16. <https://xopixel.com/responsive-animated-image-grid-html5-css3/> (will use this for image filters and beautifying the gallery page)
17. <https://www.digitalocean.com/community/tutorials/how-to-connect-to-a-mysql-server-remotely-with-mysql-workbench> (referred this for connections on the server)