



Snap Vault: A Secure Photo Gallery Application with Age-Based Content Accessibility and JSON Storage

¹ K. Divya, ² Mr. B. Panna Lal

¹ P.G.Research Scholar, Dept. of MCA, Aurora Deemed To Be University, Hyderabad, Telangana, India.

² Assistant Professor, Dept. of CSE, Aurora Deemed To-Be University, Hyderabad, Telangana, India.

Email: ¹divyakhyd03@gmail.com ²pannalal@aurora.edu.in

Phone.no: ¹+91 6281431296 ²+91 91000 00154

ABSTRACT:

This is an abstract about Snap Vault, a Photo Gallery Application aimed at having a secure and organized website for the management and storage of images. There are two categories of users, administrators and normal users, that are enabled in the system. The administrators add images into categories and the normal users register, login, and view pictures based on age restriction. User authentication is provided for safe access, and user information as well as image information is saved using a JSON Server. User access is categorized as Children, Adults, or Elderly depending on birth date and blocked access to unwanted material accordingly. Dark mode and light mode support is also provided for increased user experience. Additionally, there is a picture interaction by voting and commenting on pictures, which is also stored in the database. The system is so designed that only the authorized users can view content that belongs to their category, and thus SnapVault becomes a safe and reliable platform for managing pictures.

Keywords: Photo Gallery App, User Auth, JSON Server, Age-Based Content Filter, Image Storage, Admin Panel, User Reg, Comments and Rating, Secure Photo Handling, Image Categorizing, Content Filter, Data Security, Role-Based Access, User Engagement, Secure Login System, Age-Based Restrictions, Admin Dashboard, User Profiles, JSON Data Handling, Safe Browsing, File Size Validation.

INTRODUCTION:

Sharing and storing photographs have been a central activity of web sites of the modern age. Numerous picture gallery software exist, but none of them consider secure access control, as well as age limitation. This typically results in the current state of objectionable or offensive content to be exposed to children. Therefore, SnapVault Photo Gallery Application has been created as a secure and well-controlled environment to process images.

Snap Vault contains two types of users: administrators and regular users. Administrators will be uploading the images to various classes, whereas regular users can register, log in, and view images based on their age group. User authentication is being used in the system to offer secure access, and user data and image data is stored with a JSON Server. According to the date of birth entered upon registration, the users are categorized as Children, Adults, or Elderly, and they are blocked from content in specific image categories. In this way, the users can access content only that is suitable for their age group.

The app also includes user experience through a dark mode and light mode toggle on the welcome page. The overall users can interact with uploaded images by commenting and rating since they are saved in the database, hence creating an interactive and interesting gallery. Uploading of images by administrators is well taken care of,

and validation is put in place to make sure that the file size does not exceed 150 KB, hence ensuring performance and efficiency.

With the addition of age-based access control, admin control, and interactive capability, SnapVault is a safe solution for safe photo surfing and storage. Not merely does it shield young consumers from objectionable content, but it offers a way through which administrators can effectively manage classes of photos. The organized setting and use of SnapVault are a seamless system for managed picture management, as well as a model for learning to develop secure and user-friendly programs.

LITERATURE SURVEY:

Photo gallery apps have been commonly used for digital image storage, organization, and sharing. Google Photos and Flickr are examples of mass storage with easy access but both do not have any pre-determined age-based censorship to avoid exposure of the user to sensitive material. These sites primarily pay attention to storage space, integration with cloud, and sharing with less emphasis on content filtering based on user groups. Evidence on access control model indicates that age and role restrictions are necessary on internet sites for the purpose of ensuring secure use, particularly by vulnerable users and children. Evidence on user authentication also emphasizes the need for secure login and protection of data in web applications. Although the previous literature addressed cloud storage and sharing multimedia, rules based on the category of visibility and content moderation have not been

addressed. SnapVault bridges this gap through user authentication, storage in the form of JSON, and age-based access control, providing administrators and users with an interactive, secure, and structured image management system.

METHODOLOGY:

Snap Vault Photo Gallery App is developed with a systematic approach to provide secure and organized photo management. There are two roles in the system: admins, who upload and categorize photos, and users, who register, log in, and browse content. User information and photos are saved in a JSON Server, and security is maintained by authenticating. Users would be of Child, Adult, or Older type depending on the birthdate, and the content would be rendered based on age rules. Admins would need to upload 150 KB-sized images for optimization, and users would get an opportunity to interact in the form of submission of ratings and commenting, which would be stored in the database. Dark mode/light mode feature has been provided for improved user experience and all the modules are authentic and test function accomplished.

RESULT:

The Snap Vault Photo Gallery Application successfully enacts a secured and organized forum for image uploading, storing, and showcasing. The image uploading is controlled by admins with category selection and file size validation, but the users can login, register, and access only child-safe content. Age-based filtering rules are enforced within the system to limit children and elderly users to access restricted categories. Interactive features like ratings and comments work as expected, and every piece of information is stored on the JSON Server. The app, as a whole, offers secure navigation, smooth functionality, and improved user experience with dark mode and light mode support.

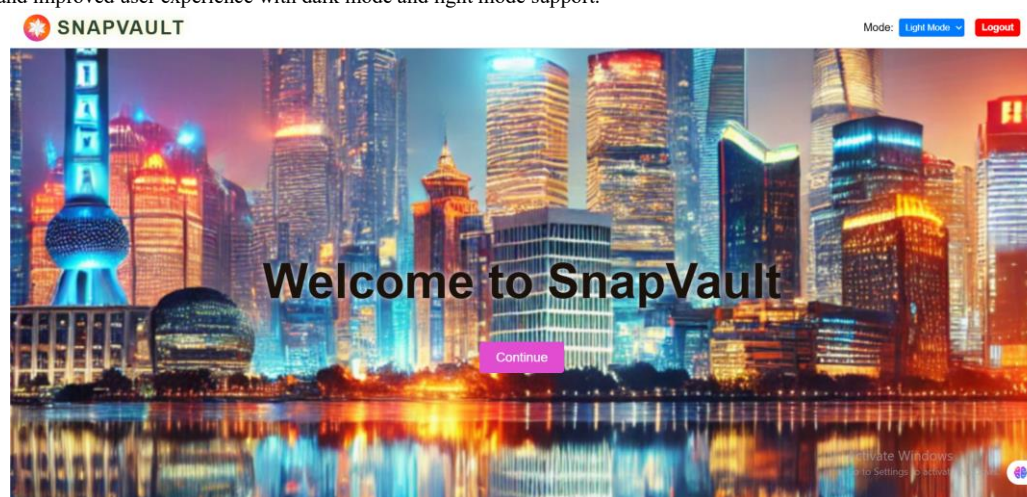


Fig.1. Welcome page

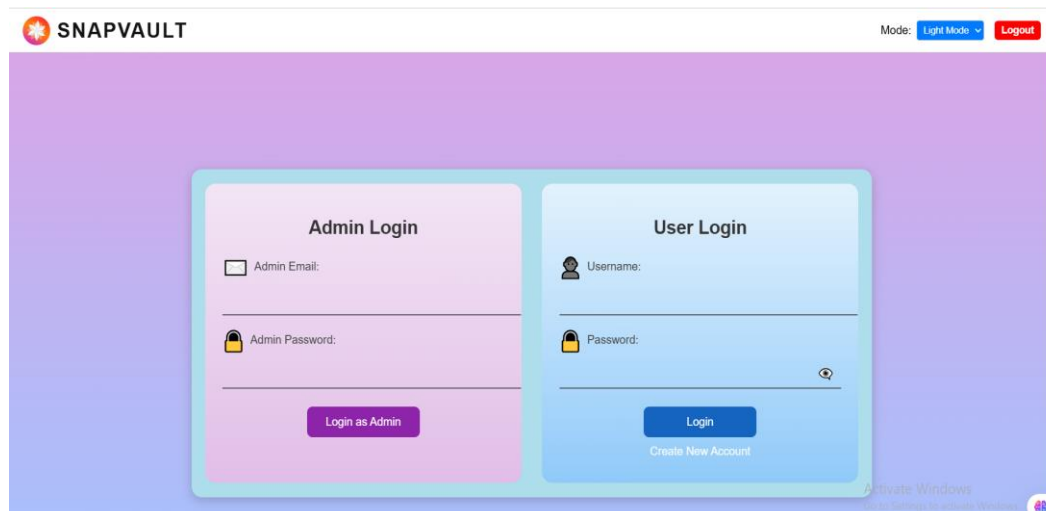
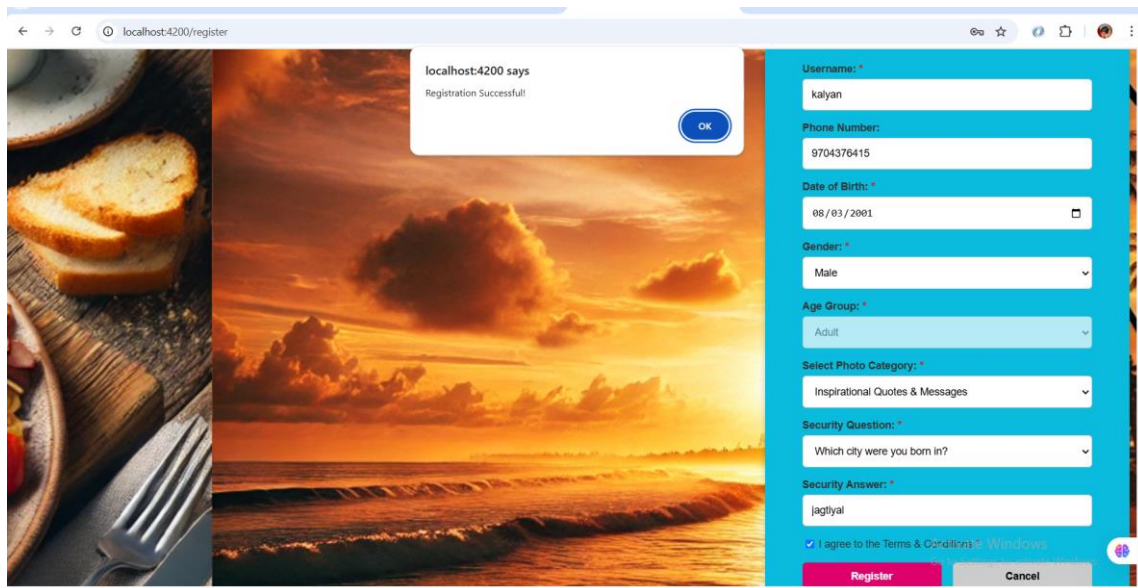


Fig.2. it shows the admin & user login



localhost:4200 says
Registration Successful!

Username: *
kalyan

Phone Number: *
9704376415

Date of Birth: *
08/03/2001

Gender: *
Male

Age Group: *
Adult

Select Photo Category: *
Inspirational Quotes & Messages

Security Question: *
Which city were you born in?

Security Answer: *
jagtiyal

☒ I agree to the Terms & Conditions's Windows

Register Cancel

Fig.3. Register to get the images

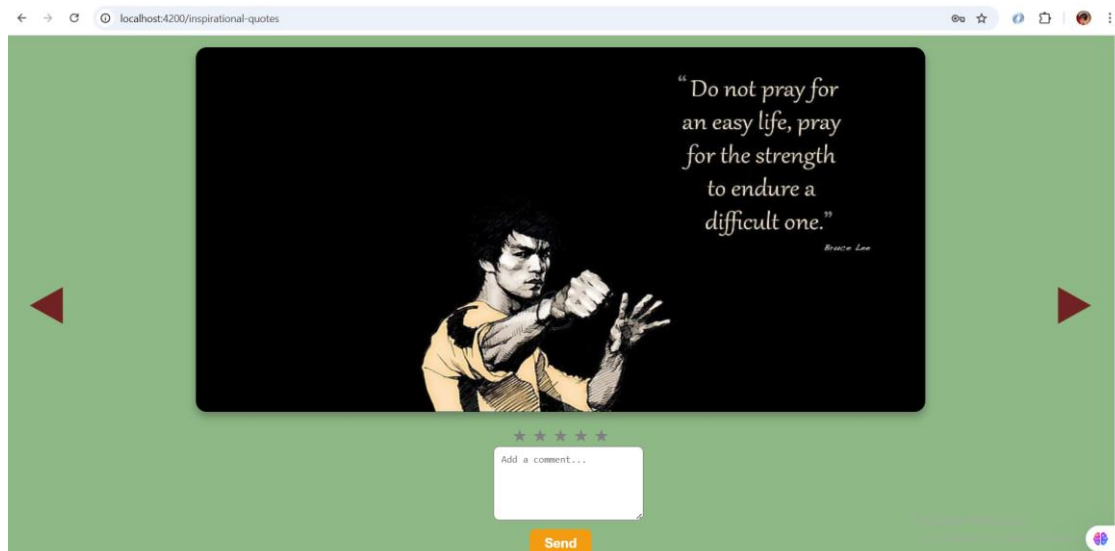
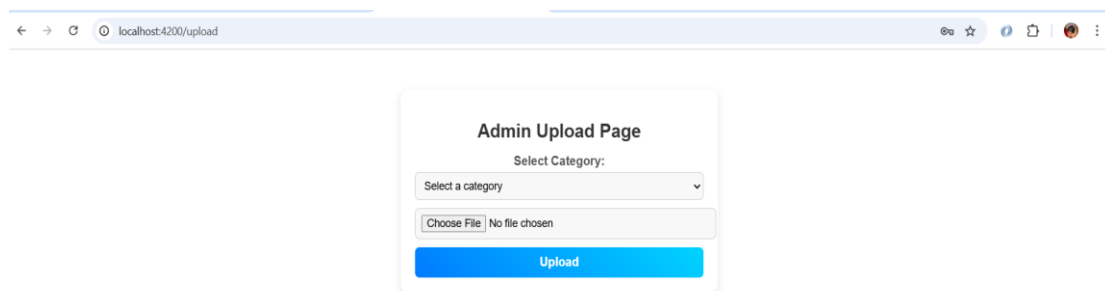


Fig.4. Shows the selected photos while registering and rating and comment for the images



localhost:4200/upload

Admin Upload Page

Select Category:
Select a category

Choose File No file chosen

Upload

Fig.5. Shows that the only admin can upload the images

CONCLUSION:

Snap Vault Photo Gallery App provides a secure and well-organized way of storing and retrieving images. Since the system segregates the work of admins and users, safe handling and proper organization are ensured. Age restriction of content prevents children and elderly from accessing unsuitable categories, while adults can responsibly use more content. JSON Server execution ensures data to manage readily and effectively, maintaining user data, photos, comments, and ratings neatly organized. Dark/light mode and feedback functionality when interactive improve general user experience. Lastly, SnapVault is an assured site that combines security, access, and user interaction in photo gallery management.

FUTURE SCOPE:

The Photo Gallery Application can be further developed in the future by using a live database such as Firebase or MySQL rather than db.json to save data securely. The application can also include login and sign-up for the users so that they can create their own galleries and handle their photos. Adding social media sharing capabilities, photo editing options, and notifications will improve the application and make it more fun and interactive. Having a mobile app version will facilitate easy viewing and posting of photographs directly from mobile phones and tablets. All these modifications will make the Photo Gallery Application more functional, efficient, and deployable in real applications.

REFERENCE:

1. <https://github.com/CodAffection/Angular-Image-Gallery-with-Firebase>
2. <https://learnsmartcoding.com/angular/using-local-storage-in-angular-applications/>
3. <https://medium.com/angular-6-gallery-app-using-firebase/angular-6-firebase-gallery-serverless-54a5a1beb03f>
4. <https://github.com/CodAffection/Angular-Image-Gallery-with-Firebase>
5. Youtube
6. Google