**Micro-Project Report(Part-B)**

**File Sharing (FileForge)**

## 1.0 Rationale:

The purpose of the file management project is to create a web-based application that allows users to securely upload, manage, and share files. This project aims to provide a user-friendly file management system with key features such as user authentication, file upload and download capabilities, the ability to generate QR codes for easy sharing, and a responsive design that optimizes viewing across various devices. By integrating these functionalities, the project seeks to offer a practical solution that enhances file organization, accessibility, and collaboration for users, improving efficiency and usability in file management tasks. The project's main objective is to improve the user experience and address common challenges associated with file storage and sharing in a digital environment.

## 2.0 Course Outcomes Integrated:

a) Develop program using control statement.
b) Perform operations based on arrays and graphics.
c) Develop programs by applying various object oriented concepts.
d) Use form controls with validation to collect user's input.
e) Perform database operations in PHP.

## 3.0 Literature Review:

The literature on file management systems and related technologies offers valuable insights into the design and implementation of such projects. Research in this area emphasizes the significance of user-friendly interfaces, secure data handling, and efficient file sharing mechanisms.

Studies highlight the importance of user authentication and access control mechanisms to ensure data privacy and security. Effective authentication methods, such as session management and secure login protocols, are essential components for safeguarding user data in web-based applications.

The literature also emphasizes the need for responsive design and cross-device compatibility in file management systems. Responsive interfaces ensure optimal viewing experiences across various devices, catering to the diverse needs of users accessing the system from desktops, tablets, and smartphones.

Furthermore, QR code generation for file sharing is a notable feature discussed in the literature. QR codes offer a convenient method for users to share files securely, leveraging their widespread adoption and ease of use.

Overall, the literature underscores the importance of integrating user-centric design principles, robust security measures, and innovative sharing functionalities to enhance the effectiveness and usability of file management systems in modern digital environments.

**4.0 Actual Procedure Followed:**

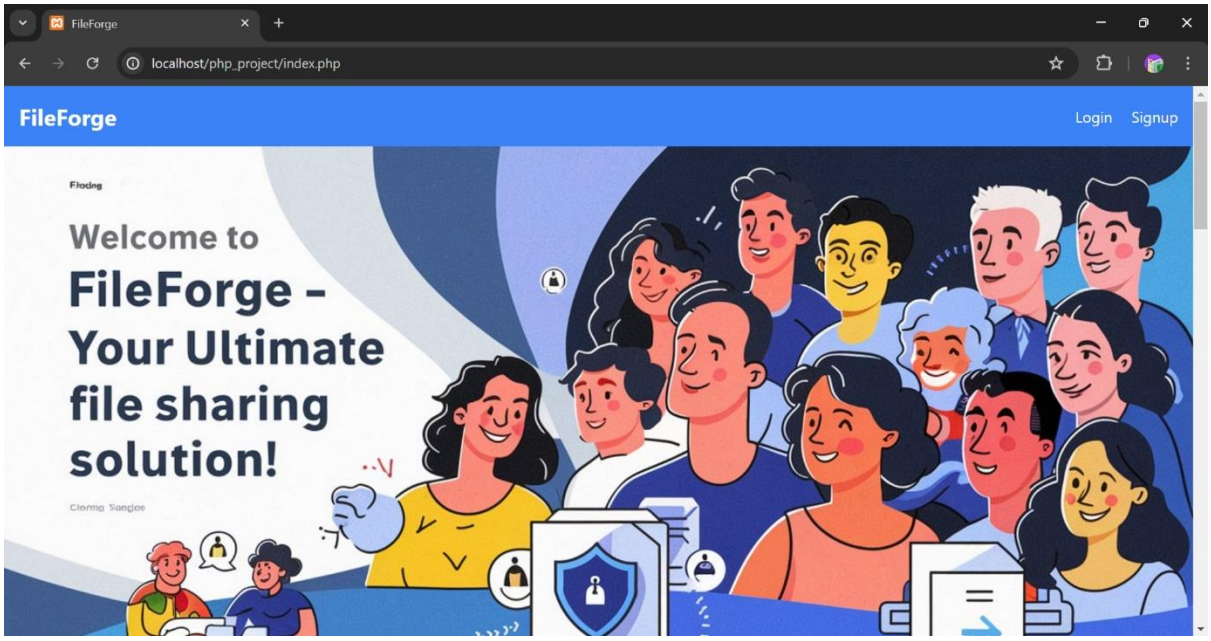
1) The subject of Micro Project was decided by File Sharing (FileForge).
2) We then took some basic information about the file sharing websites.
3) We have made the PHP, HTML and CSS code for web pages using different tags.

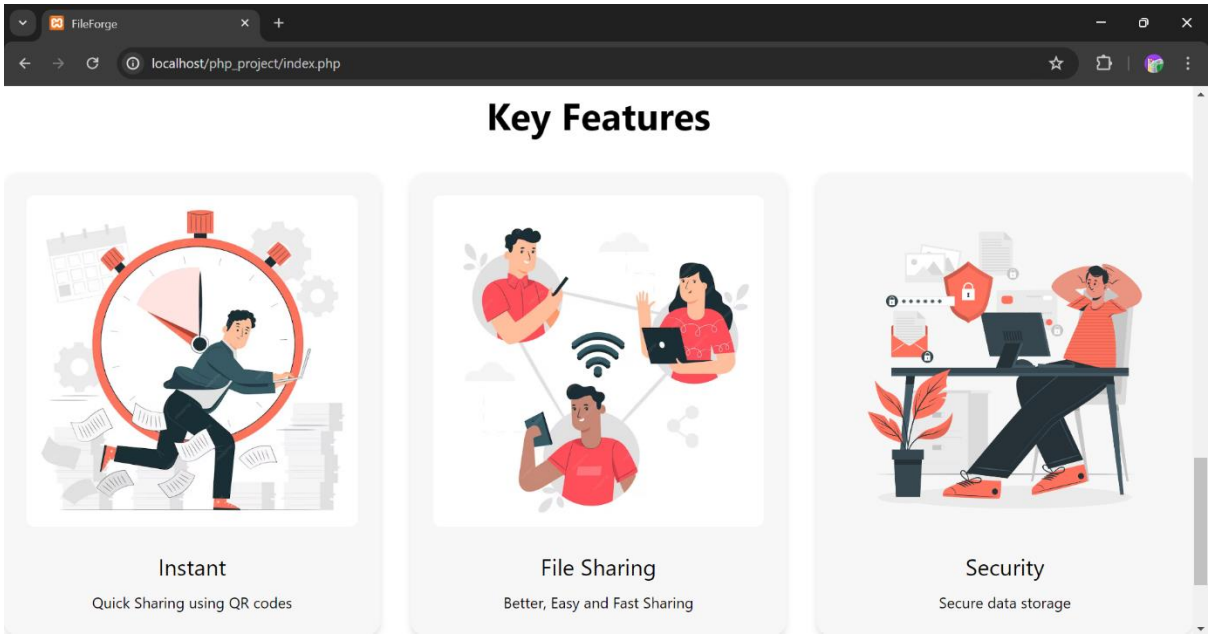
**5.0 Actual Resources Use:**

| Sr.No. | Name of component | Specification | Qty. |
|---|---|---|---|
| 1 | Laptop | Typing | 1 |
| 2 | Book | PHP and MySQL | 1 |
| 3 | Internet | https://www.w3schools.com/js/ | 1 |
| 4 | Notebook | Extra information | 1 |
| 5 | Visual Studio Code | For Coding | 1 |
| 6 | Browser | Chrome | 1 |

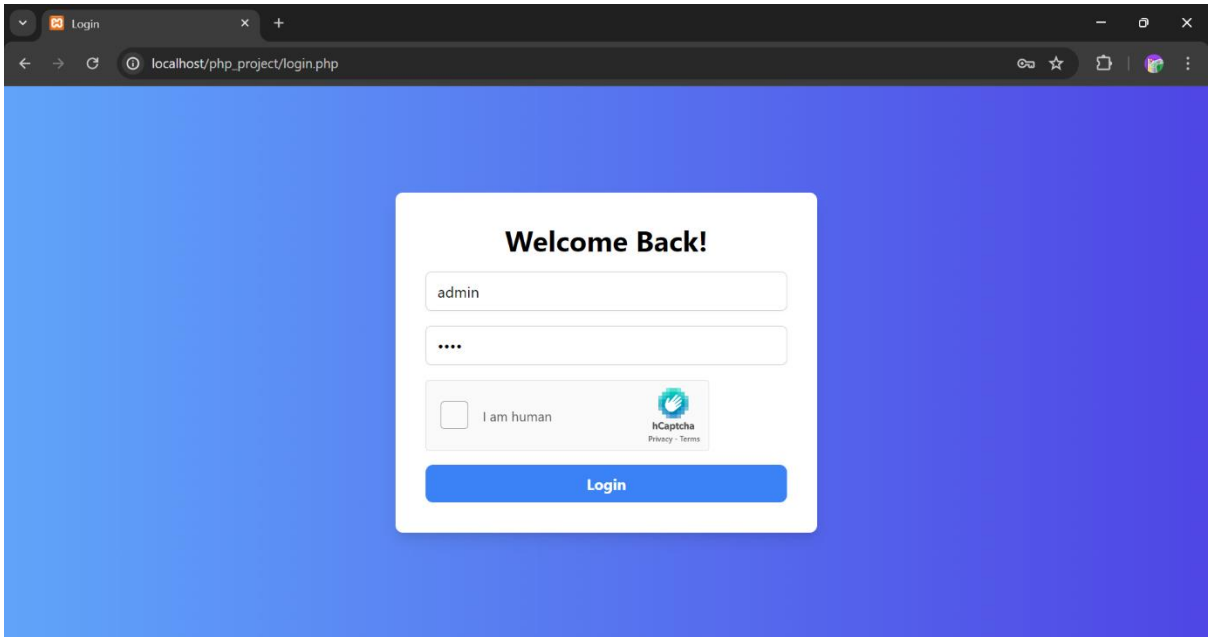
**6.0 Outputs of the Micro- Projects:**

This is our index page (index.php):

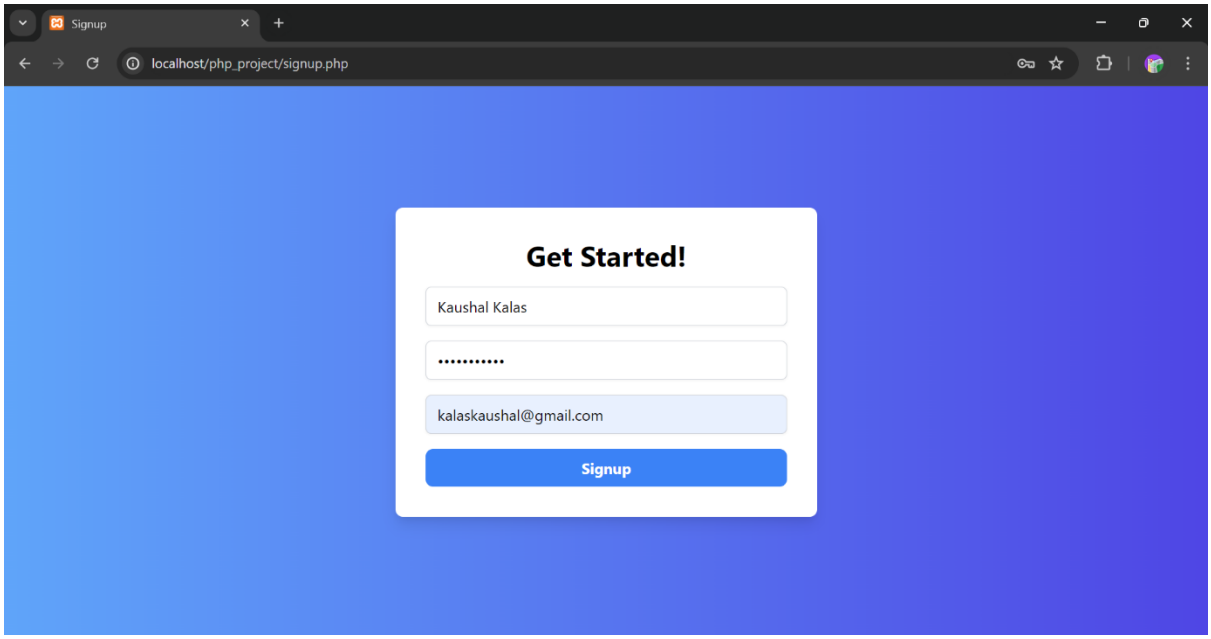




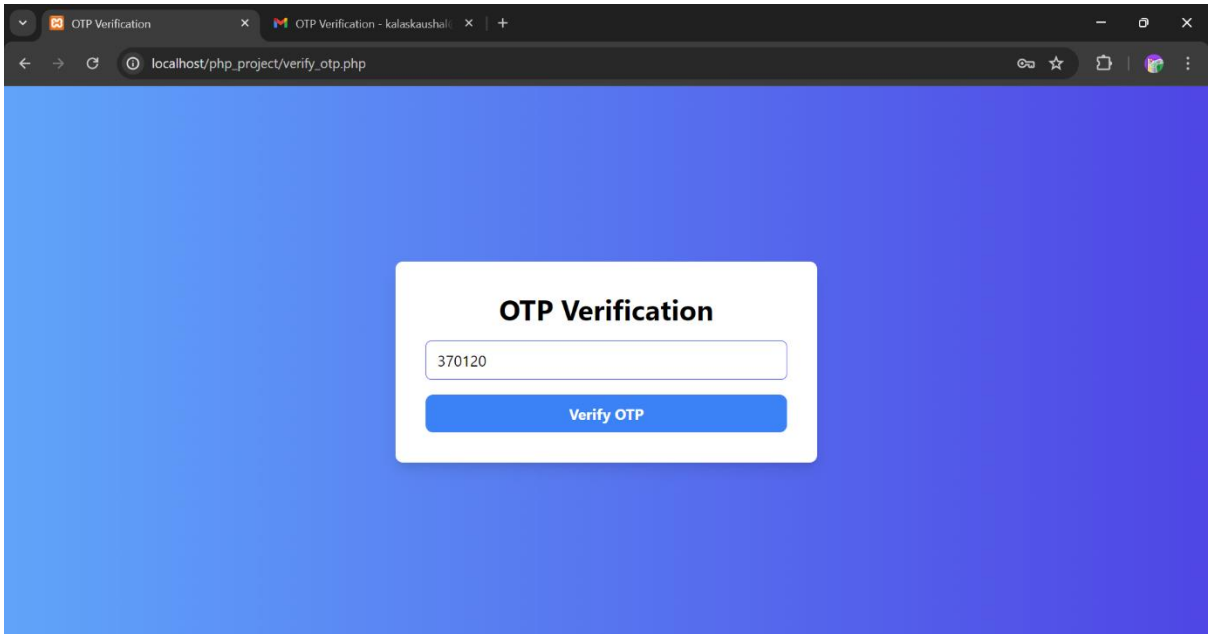

This is the login page and we have integrated Hcaptcha (login.php):



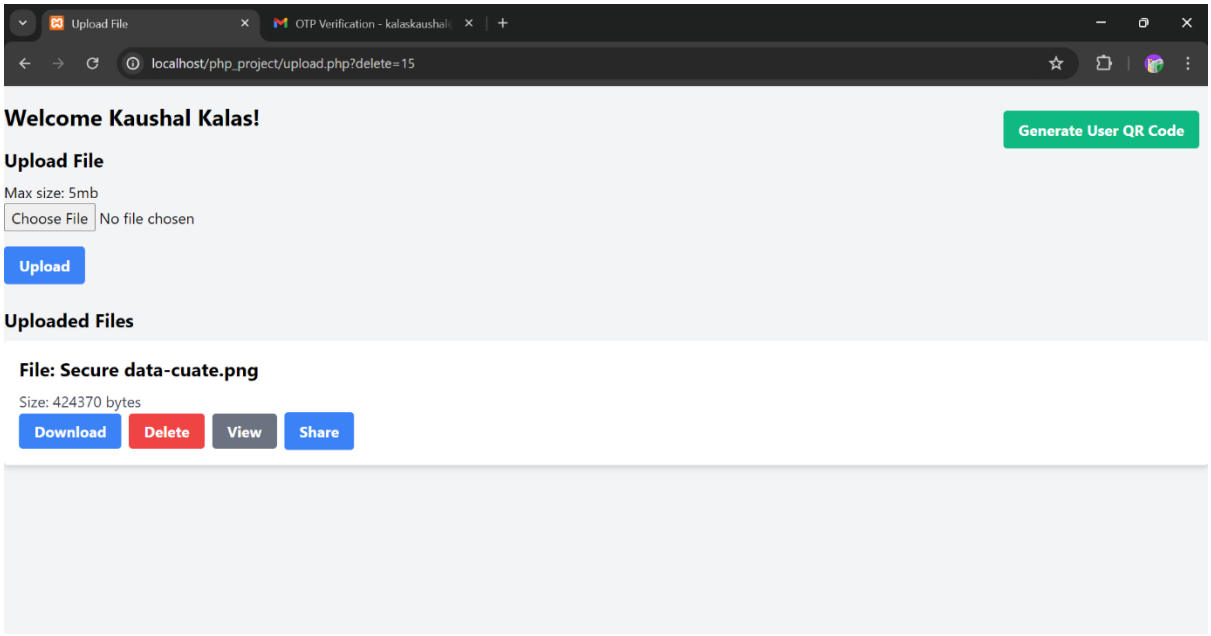
This is the signup page (signup.php):



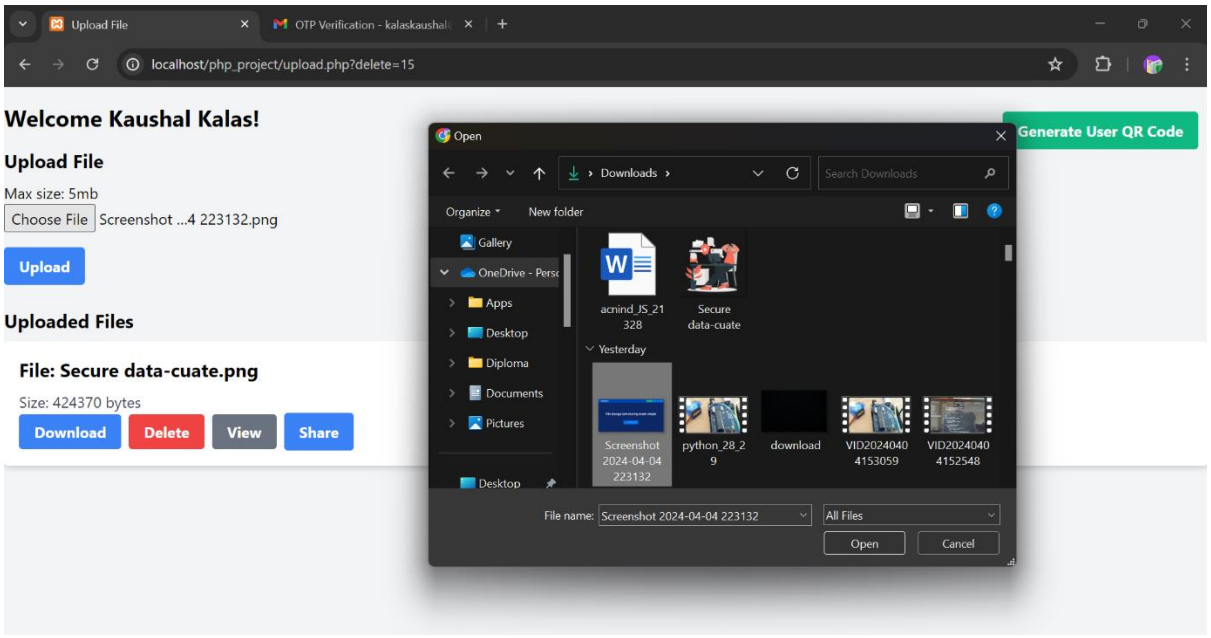

After entering the details user gets an OTP on there mail and we have to enter the OTP to verify (verify_otp.php).



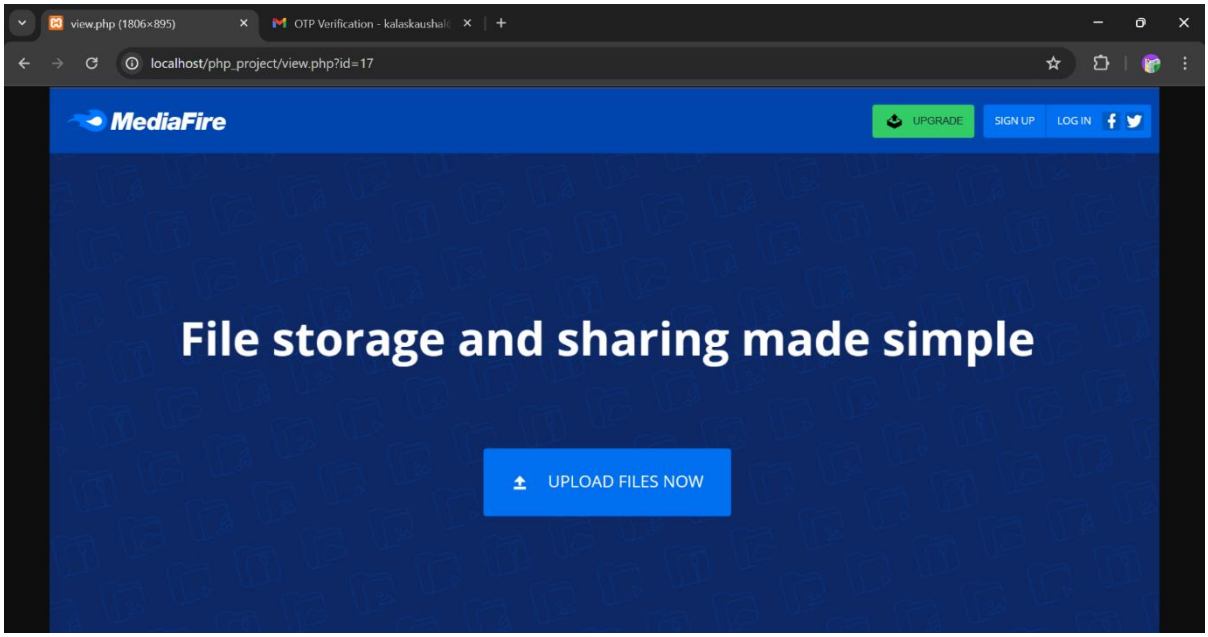
After login from the account you will redirect to the uploads page (upload.php):



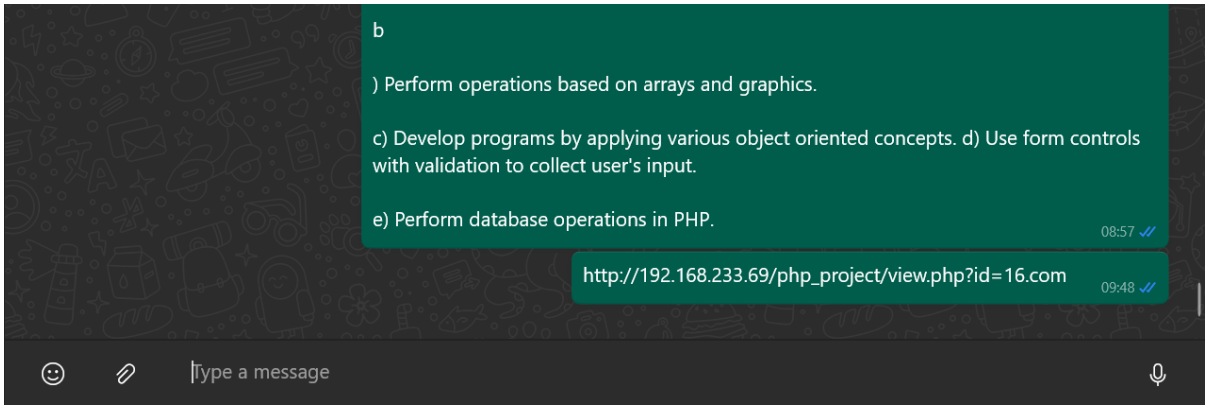

We can upload the files as per our requirement:



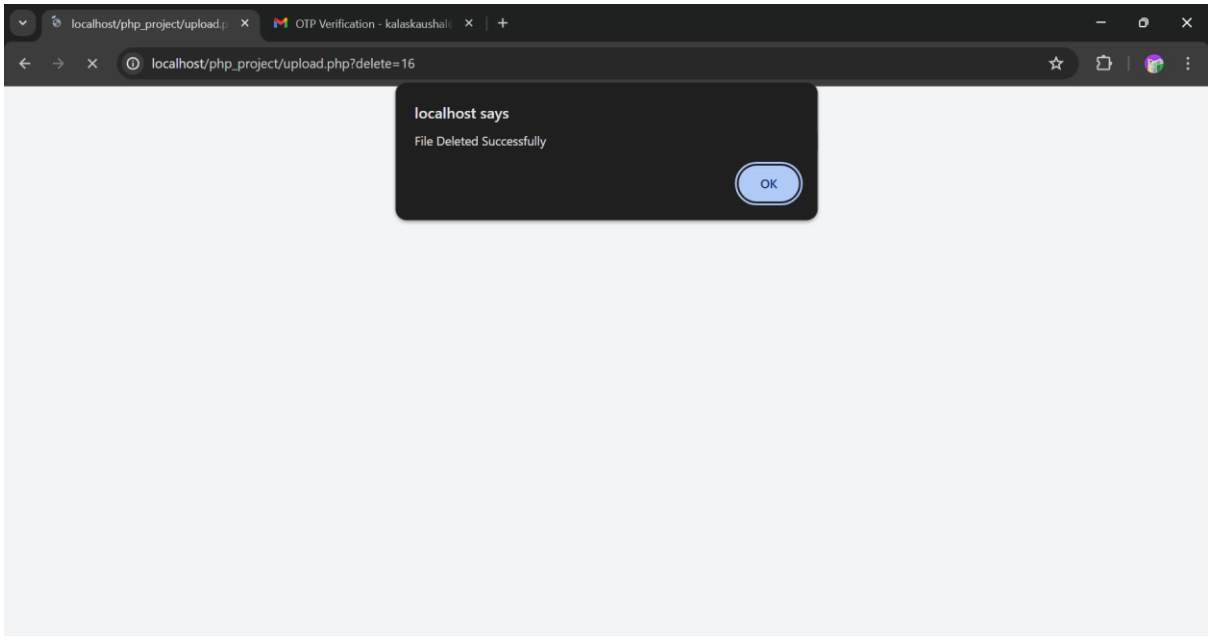
We can view the files uploaded:



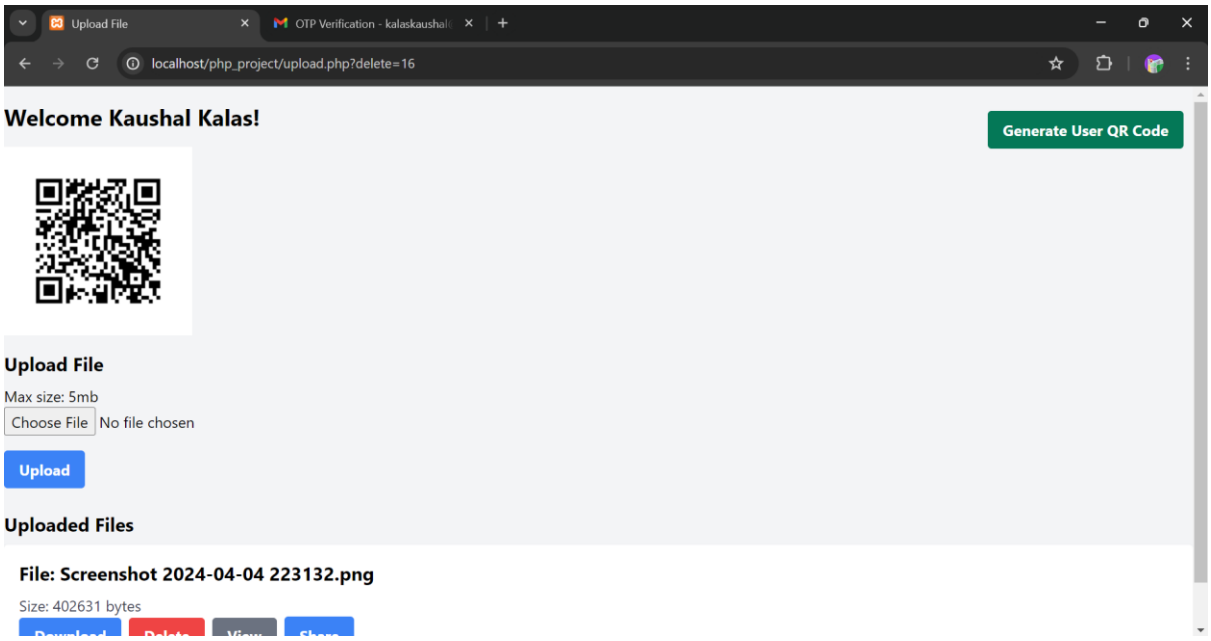

We can share the files through links:



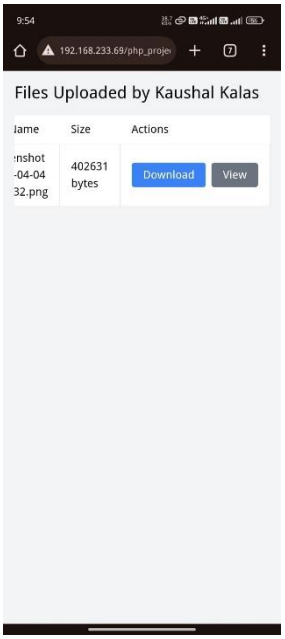
We can also delete the files uploaded by the user:




We can also generate QR code:



After scanning the QR code, you will display all the files uploaded by the user and can view or download the files (view_files.php):




**7.0 Skill Developed /learning out of this Micro-Project:**

a) Proficiency in PHP programming.
b) Understanding of real-time files functionality.
c) Familiarity with HTML and CSS for web interface design.
d) Ability to create interactive web applications.
e) Knowledge of files visualization and management.
f) Experience in developing responsive web solutions.

**8.0 Applications of this Micro- Project:**

1. **Content Delivery:** Media companies and broadcasters can use real-time file management for content delivery and distribution, ensuring timely access to media assets and streamlined workflows.
2. **Healthcare and Telemedicine:** In healthcare, real-time file management facilitates instant access to patient records and medical imaging, supporting timely decision-making and remote consultations.
3. **Customer Service:** Companies can use such systems to provide immediate access to documents or files needed for customer support queries, improving response times and customer satisfaction.
4. **E-learning and Training:** Educational institutions and training organizations leverage real-time file management to deliver course materials instantly and enable interactive learning experiences.
5. **Event Management:** Real-time file management assists event planners in coordinating logistics, managing event-related documents, and collaborating with vendors and partners efficiently.

## 9.0 Area of Future Improvement:

**Area of Future Improvement of File Sharing (FileForge):**

The file-sharing system, FileForge, presents several areas for future improvement and enhancement to optimize its functionality and user experience:

1. Enhanced Security Features: Implementing advanced encryption standards and multi-factor authentication to bolster data security and protect against unauthorized access.
2. Scalability and Performance: Optimizing the system architecture to handle larger file volumes efficiently and ensuring consistent performance even under high user loads.
3. Version Control and File History: Introducing robust version control capabilities that allow users to track changes, revert to previous versions, and view detailed file histories.
4. Real-time Collaboration Tools: Integrating real-time collaboration features such as live editing, comments, and notifications to facilitate seamless teamwork on shared documents.
5. Integration with Cloud Services: Providing seamless integration with popular cloud storage platforms (e.g., Google Drive, Dropbox) to allow users to access and sync files across multiple environments.
6. Advanced Search and Organization: Enhancing search functionalities with advanced filters, tagging, and categorization options to help users quickly locate and organize files.
7. Comprehensive Analytics: Incorporating analytics tools to track file usage, user engagement, and system performance, providing insights for continuous improvement.

## 10.0 Conclusion:

In conclusion, the FileForge project offers a comprehensive and user-friendly file sharing solution tailored for individuals and organizations. Through its features such as file upload, download, and management, coupled with QR code generation and sharing capabilities, FileForge provides a versatile platform for efficient document exchange. While the project currently demonstrates effective functionality, there is scope for further enhancement in security, usability, scalability, and integration with modern technologies. By addressing these areas, FileForge can continue to evolve as a robust and adaptable tool, meeting the diverse needs of users and ensuring a seamless file sharing experience.