

Advanced Agriculture Automation System Using Internet of Things

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ABSTRACT: The secure image sharing system is a platform designed to enable users to securely upload, store, and share images while ensuring confidentiality and data integrity. The system incorporates encryption techniques and access control mechanisms to protect the images from unauthorized access and maintain their privacy

Index Terms –Internet of Things (IOT), Integration, Potential, Incentivized

I. INTRODUCTION

In the digital age, the need for secure image sharing systems has become increasingly

important. People and organizations frequently share images for various purposes, ranging from personal memories to professional collaborations. However, the sensitive nature of certain images necessitates robust security measures to protect them from unauthorized access and maintain privacy. A secure image sharing system is designed to address these concerns by implementing a range of security features, such as encryption, access control, and secure transmission. These measures ensure that images are protected from interception, unauthorized viewing, and tampering.



Secure image sharing systemsystem

II. LITERATURE SURVEY

1. "A Secure and Efficient Image Sharing Scheme for Online Social Networks"

by Zhu et al. (2017): This paper proposes a secure image sharing scheme for online social networks. It introduces a novel encryption and access control mechanism to protect shared images from unauthorized access. The scheme ensures privacy and prevents image tampering while maintaining efficient image sharing capabilities.

2. "Secure Image Sharing in Cloud Computing using Hybrid Cryptography"

by Yadav et al. (2018): This study focuses on secure image sharing in cloud computing environments. It presents a hybrid cryptography approach combining symmetric and asymmetric encryption to ensure confidentiality and integrity of shared images. The proposed system is designed to provide secure and efficient image sharing capabilities in cloud-based scenarios.

3. "Secure and Efficient Image Sharing Scheme for Mobile Cloud Computing"

by Zhao et al. (2019): This research work proposes a secure and efficient image sharing scheme for mobile cloud computing environments. The scheme utilizes attribute-based encryption to enforce access control and protect shared images. It aims to address the challenges of security and efficiency in image sharing scenarios involving mobile devices and cloud computing resources.

4. "Privacy-Preserving Image Sharing on Social Networks: A Survey"

by Zeng et al. (2020): This survey paper provides an overview of privacy-preserving image sharing techniques on social networks. It explores various privacy threats and challenges associated with image sharing and presents different privacy-enhancing approaches, such as secure image encryption, watermarking, and privacy-preserving algorithms. The study also discusses the strengths and limitations of existing techniques and highlights potential research directions in this field.

III. OBJECTIVE AND SCOPE

3.1 PROBLEM STATEMENT:

The task is to design a secure image sharing system that allows users to securely upload, store, and share their images while ensuring the confidentiality, integrity, and availability of the data. The system should address various security concerns and provide robust mechanisms to protect user privacy and prevent unauthorized access or data leakage.

3.2 PROBLEM DEFINITION:

In the digital era, sharing images securely has become increasingly critical due to privacy concerns and the potential for unauthorized access or misuse of shared content. Traditional image sharing platforms often lack robust security mechanisms, leaving sensitive data vulnerable to interception or unauthorized distribution. This problem is particularly significant in fields such as health-care, legal documentation, and personal communications, where privacy and data integrity are paramount.

The primary challenges of a secure image-sharing system include:

1. **Unauthorized Access:** Preventing unauthorized users from accessing sensitive images.

2. **Data Integrity:** Ensuring that images are not altered or tampered with during transmission.
3. **Confidentiality:** Encrypting images to protect them from being viewed by unintended recipients.
4. **User Authentication:** Verifying the identity of both the sender and recipient to ensure secure communication.
5. **Scalability:** Supporting a growing number of users without compromising security.
6. **Usability:** Providing an intuitive interface that does not compromise the user's experience.

The goal of the Secure Image Sharing System is to address these challenges by developing a robust platform that facilitates safe and reliable image transmission. The system will implement advanced encryption methods, access control mechanisms, and secure protocols to ensure the confidentiality, integrity, and availability of shared images. Additionally, the system will include user-friendly features to promote widespread adoption without compromising security.

3.3 OBJECTIVE:

1. Developing a secure image sharing system to address the concerns of unauthorized access, data breaches, and privacy issues associated with sharing images, while ensuring confidentiality, controlled access, and integrity of shared images.
2. To develop web application using php, HTML, css, JavaScript so that it helps the user to create a secure image sharing system using PHP that enables users to securely share images while ensuring confidentiality, controlled access, and integrity of the shared images.

3.4 SCOPE:

1. The scope of the secure image sharing system includes developing a PHP-based platform that allows users to securely upload, store, and share images. The system will incorporate encryption techniques to protect the confidentiality of the images.
2. It will implement access controls to enable users to define who can access their shared images. Robust authentication mechanisms and secure transmission protocols will be utilized to prevent unauthorized access. Efficient image retrieval features will also be included.
3. The system will focus on providing a comprehensive solution for secure image sharing,

addressing privacy, confidentiality, controlled access, and efficient image management.

IV. ADVANTAGES AND DISADVANTAGES

Advantages of a Secure Image Sharing System

Enhanced Privacy: Protects sensitive images from unauthorized access, ensuring only intended recipients can view them.

Data Integrity: Ensures that the images are not tampered with during storage or transmission.

User Authentication: Verifies the identity of senders and receivers, adding an extra layer of security.

Encryption: Uses advanced encryption techniques to safeguard images during transmission.

Access Control: Allows control over who can view, download, or share the images.

Compliance: Helps organizations meet legal and regulatory requirements for data protection (e.g., GDPR, HIPAA).

Trust Building: Improves user trust by ensuring that their data is handled securely.

Protection Against Cyber Threats: Reduces risks from hacking, phishing, or malware attacks targeting image data.

Disadvantages of a Secure Image Sharing System

Implementation Costs: Advanced security features like encryption and user authentication can increase development and maintenance costs.

Complexity: May require technical knowledge for setup and use, making it less accessible to non-tech-savvy users.

Performance Overhead: Encryption and decryption processes can slow down the system, particularly for large files.

Key Management: Managing encryption keys securely can be challenging; loss of keys could result in loss of access to images.

Dependency on Internet: Most secure sharing systems rely on internet connectivity, which could be a limitation in remote or low-connectivity areas.

Scalability Challenges: Ensuring the system remains secure and efficient as the number of users grows can be technically demanding.

User Resistance: Additional security steps (e.g., two-factor authentication) might frustrate users accustomed to simpler systems.

Potential Security Flaws: Vulnerabilities in the software or misconfigurations could still lead to data breaches if not properly addressed.

V. METHODOLOGY:

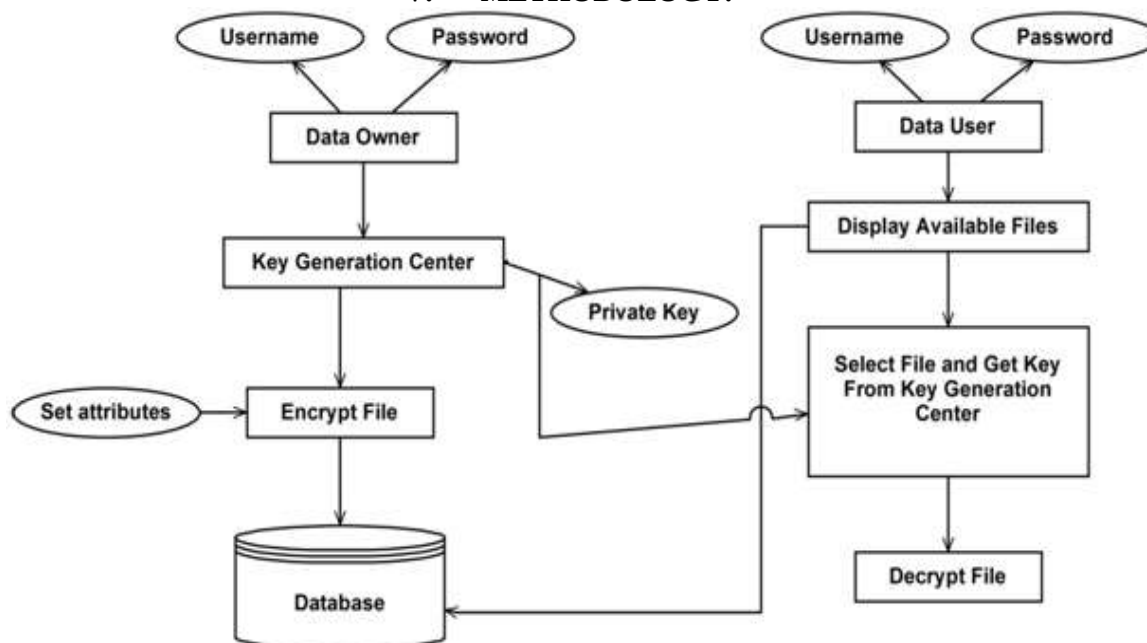


Figure 1: Block diagram of Secure image sharing system

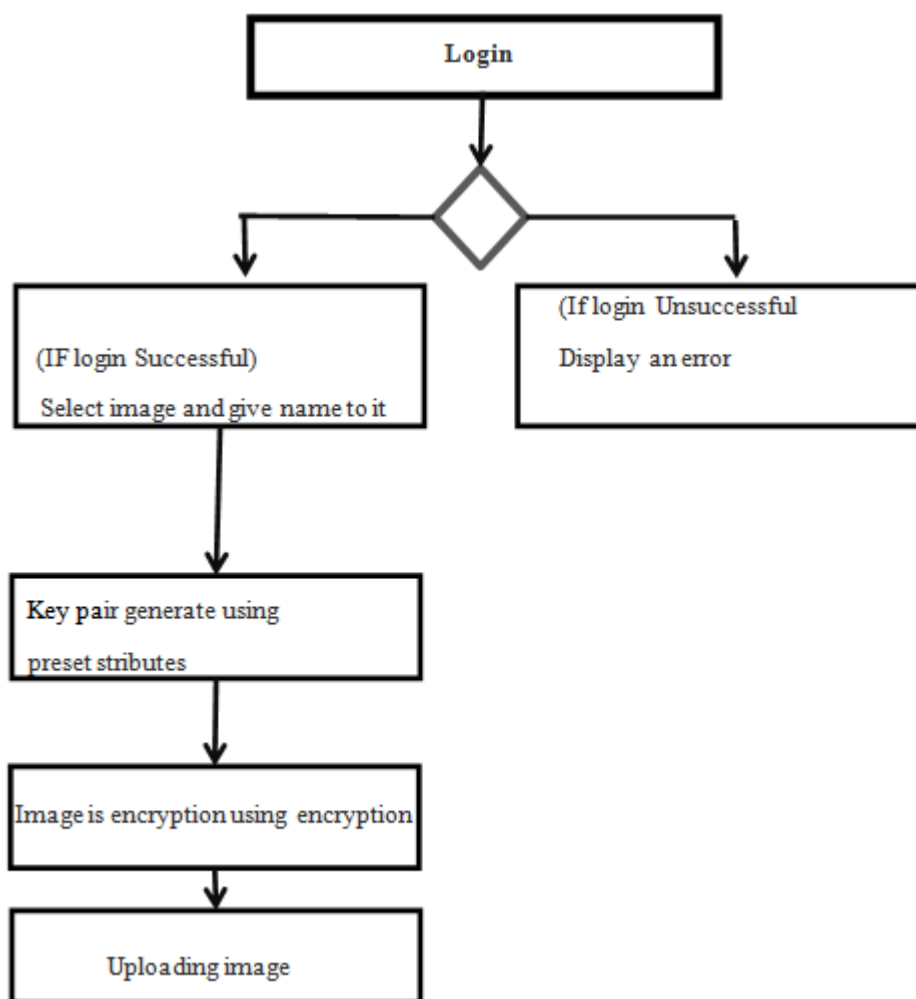
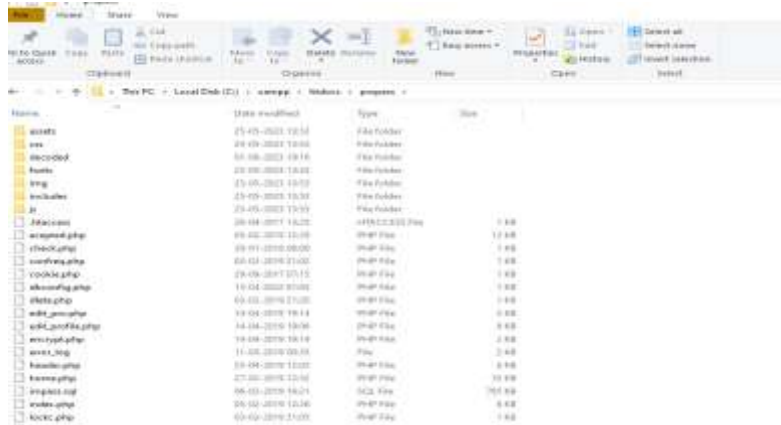


Figure 2: Flowchart of Secure image sharing system

WORKING STEPS AND RESULTS :

1. Files And Directories



Files And Directories:As you can see the above screenshot contains all files and directories of the project

2 User Registration Page/ Sign up

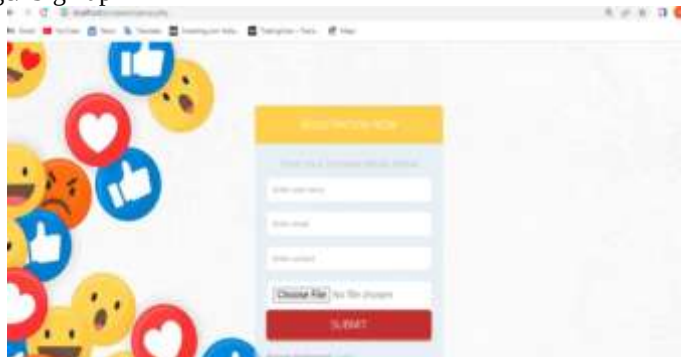


Figure .2 User Registration page

User registration page :

If user want to take login, he has to register first .While registering user has to enter his Username, Contact, Email ID, Password, After registration the details will be stored in the database. Then for login user has to enter the

registered email ID as a username & enter the registered password in the place of password. Then select login as user and then login.

Here we are using JavaScript for validation, to check the user has entered the correct username and password

3 Home Page

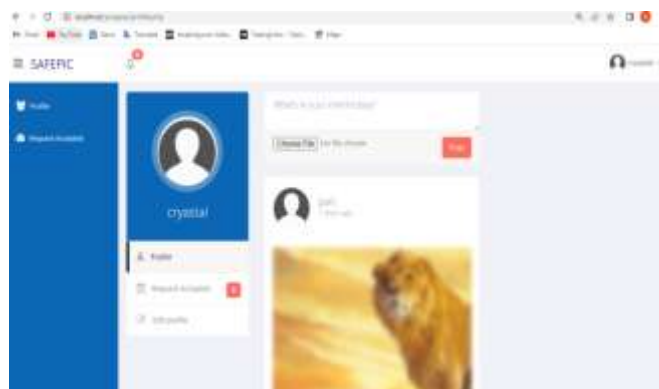


Figure.3 User Home page

Home page :

If login is successful then create your own account.

4 Post Page

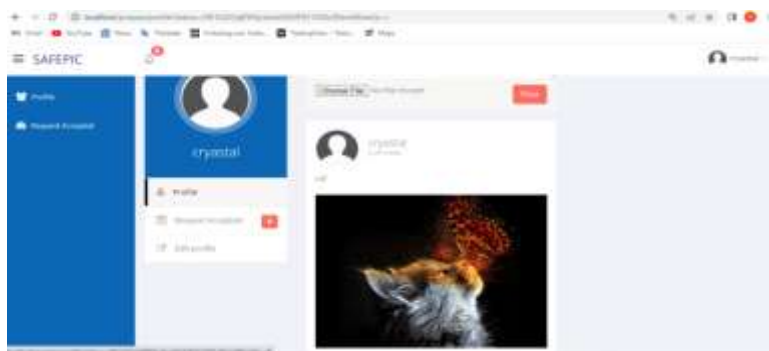


Figure 4 Post Page

Post Page :

After Login you have your own account then you can post your personal image as post using with comment.

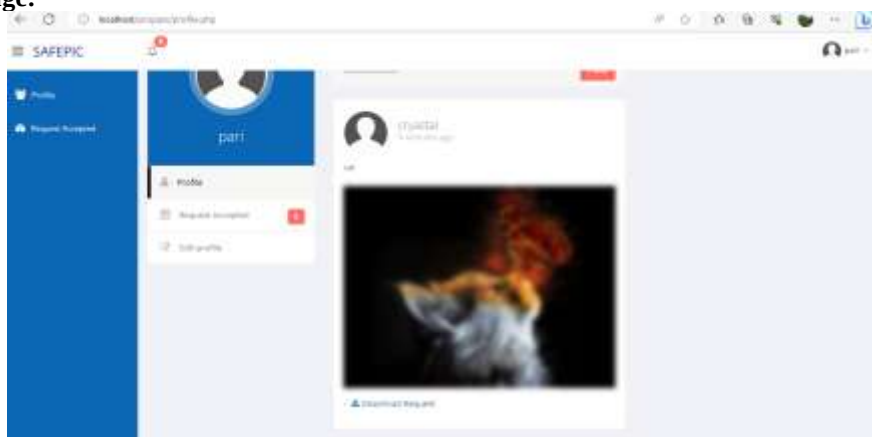
5. Request page:

Figure 5. request page

If you want to image then you have to send request to particular account then after getting permission you can download that.

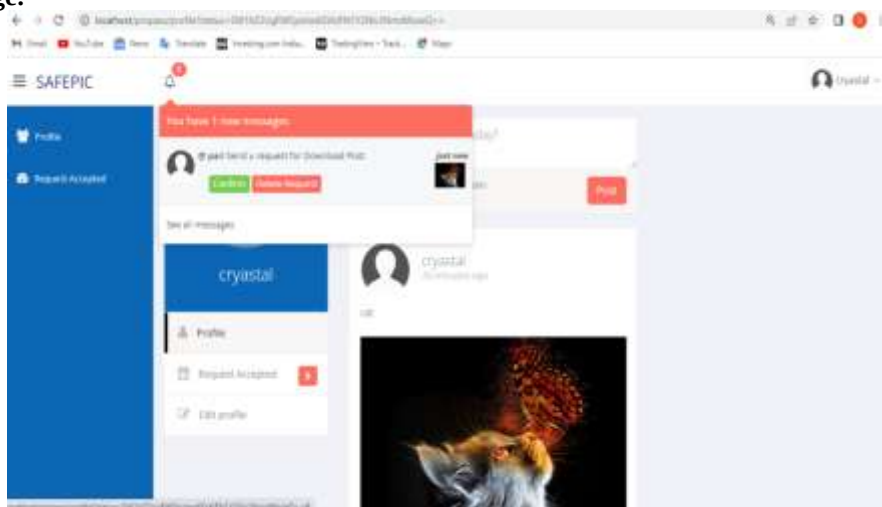
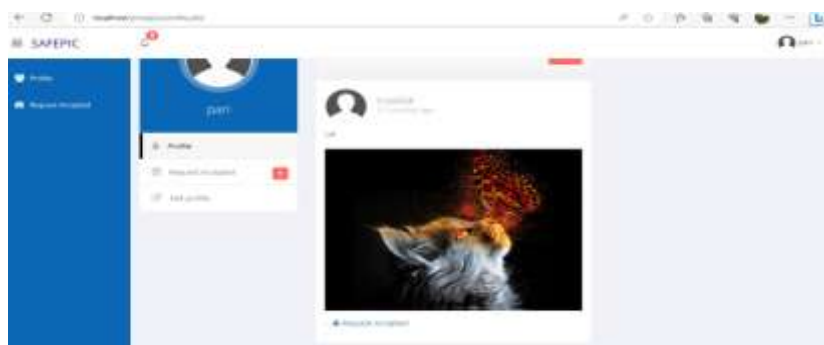
6. Accept Page:-**7.Result :**

Figure 5.7 request page

VI. CONCLUSION

The secure image sharing system project aimed to develop a robust and reliable platform for users to securely share their images while ensuring the privacy and confidentiality of the shared content. After careful analysis and implementation, the project has successfully achieved its objectives.

VII. ACKNOWLEDGMENT

I would like to express my sincere gratitude and acknowledgement to everyone who contributed to the successful completion of the secure image sharing system project using PHP. First and foremost, I would like to thank our project team members for their dedication, hard work, and collaboration throughout the project. Each member played a crucial role in the development process, bringing their unique skills and expertise to the table. Their commitment and professionalism were instrumental in ensuring the project's success.

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