Technical Assignment: Secure Image Uploading Web Application

Dear Candidate,

I hope this email finds you well. As part of our interview process for the Cybersecurity Engineer position at Sawit Pro, we would like you to undertake a technical coding assignment. Below, you'll find the details and expectations for this assignment:

Requirements:

Develop a web application with the primary objective of allowing users to securely upload and store image files. The detailed requirements are as follows:

1. **User Registration & Login:** Create functionalities for users to register and log in, ensuring secure handling of user credentials.
2. **Secure Image Upload:** Implement security mechanisms to validate and safely upload image file types (like .jpg, .png), preventing potential malicious or oversized files.
3. **Image Storage:** Ensure secure and confidential storage for the uploaded images. Techniques like encryption are encouraged.
4. **Image Retrieval:** Users should have a personalised space where they can view their uploaded images in a gallery format.
5. **Image Deletion:** Provide users with the option to delete their uploaded images.
6. **User Feedback:** The system should be interactive, giving feedback upon successful operations or potential errors.

Submission Guidelines:

1. Your source code should be organised and readable. Do include a `requirements.txt` or its equivalent if using external libraries.
2. Accompany your code with a concise documentation covering setup, assumptions, design rationales, and areas of potential improvement.
3. Ensure your solution is thoroughly tested; include these tests in your submission.
4. It's advised (but optional) to use version control, like Git, and provide us with a repository link.

Runtime Specifications

Your application should be web-based, supporting major browsers like Chrome, Firefox, Safari, and Edge. If you're utilising a database, we recommend MySQL or PostgreSQL. While backend and frontend technologies are largely your choice, we've suggested a few (Python with Flask/Django, Node.js with Express, HTML, CSS, JavaScript) for your convenience.

Evaluation Criteria

Your submission will be evaluated on:

1. Functional correctness and adherence to the requirements.
2. Implementation of security best practices.
3. Proper usage of cryptography for data security.
4. Secure handling and validation of user inputs.
5. Effective management of user authentication and authorization.

While these criteria form our primary assessment focus, other factors like user experience, code readability, and any added security features will also be considered.

Kindly complete and submit your solution by . We're eager to understand your approach and skills through this assignment. Should you have any queries or need clarification on any part of the task, please don't hesitate to reach out.