Assignment: PHP Web Developer

Task 1: User Authentication

Create a simple user authentication system using PHP and MySQL:

1. Set up a MySQL database with a `users` table that includes fields for `id`, `username`, `password`, and `email`.
2. Implement a registration form that allows users to sign up with a unique username, a valid email address, and a secure password.
3. Create a login form that verifies user credentials against the database.
4. Upon successful login, display a welcome message with the user's username.

Task 2: File Upload

Design a file upload feature using PHP:

1. Create a web form that allows users to upload an image file.
2. Validate the uploaded file to ensure it is an image (JPEG or PNG) and does not exceed a specified file size limit.
3. Save the uploaded image to a server directory.
4. Display the uploaded image on the webpage.

Task 3: RESTful API

Build a simple RESTful API using PHP:

1. Create an API endpoint that returns a list of items (e.g., products, tasks) in JSON format.
2. Implement an endpoint for adding a new item to the list.
3. Include error handling and appropriate HTTP status codes.

Task 4: Front-End Integration

Integrate the RESTful API from Task 3 into a front-end application:

1. Design a basic web page that consumes the API to display a list of items.
2. Add a form to the page that allows users to add new items to the list through the API.

Submission Guidelines:

1. Create repo.
2. Organize your code into separate folders for each task.
3. Include a README file with instructions on setting up and running your code.
4. Provide clear comments in your code to explain your approach and any important details.

Evaluation Criteria:

1. **User Authentication:** Secure handling of user credentials, proper validation, and clear error messages.
2. **File Upload:** Proper validation of file types and sizes, secure storage, and display of the uploaded image.
3. **RESTful API:** Well-designed API with proper endpoints, error handling, and adherence to RESTful principles.
4. **Front-End Integration:** Effective integration of the API into a user-friendly web interface.

Adjust the tasks based on your specific requirements and the skills you want to assess in a PHP developer. This assignment covers user authentication, file handling, API development, and front-end integration to provide a comprehensive evaluation of a candidate's skills.