

Chittagong University of Engineering and Technology
Department of Computer Science and Engineering
CUET-CSE Digital Skills Training for Students
Venue: IIUC

Final Examination

Level: Intermediate **Batch No:** CBI-32 **Course Title:** PHP-Laravel

Total Duration: 2 Hours (120 Minutes) Full Marks: 25

Part A: Job Scheduling (8 Marks)

You are tasked with creating a form and a job in Laravel that simulates a long-running process using the `sleep` function.

1. **Create a Form (2 Marks):**
 - Build a simple HTML form where the user can input a task name.
 - Submit the form to a route that dispatches a job with the inputted task name.
2. **Create a Job Class (4 Marks):**
 - Implement a job class that:
 - Accepts the task name as input.
 - Simulates processing the task by using the `sleep(5)` function.
 - Outputs a log message indicating the start and completion of the task.
3. **Dispatch the Job (2 Marks):**
 - Write the necessary controller method and route to dispatch the job when the form is submitted.

Part B: API Development (9 Marks)

You are building a library API that allows users to retrieve and add books.

1. **Define API Routes (2 Marks):**
 - Define the following routes in the `api.php` file:
 - A GET route to retrieve all books.
 - A POST route to add a new book.
2. **Controller Methods (5 Marks):**
 - Create a controller with the following methods:
 - `index()` to return a JSON response containing a list of books.
 - `store()` to validate and save a new book from the POST request.
Use the following fields:
 - `title` (required, string)
 - `author` (required, string)
 - `year_published` (required, integer)
3. **Simulate the GET and POST Requests (2 Marks):**
 - Use Laravel Tinker, Postman, or another tool to test the GET and POST APIs and demonstrate their functionality.

Part C: Authentication (8 Marks)

You are required to implement a basic authentication system in Laravel using the built-in authentication scaffolding.

1. **Install Authentication (3 Marks):**
 - Use Laravel Breeze, Jetstream, or another method to scaffold authentication functionality.
2. **Customize the Registration Process (3 Marks):**
 - Add an additional field, `phone_number`, to the registration form.
 - Save this field in the database when a user registers.
3. **Protect Routes (2 Marks):**
 - Create a route group protected by the `auth` middleware.
 - Add a test route inside the group that returns "Welcome, [User Name]" for authenticated users.