Title:

TaskFlow System Design Document

Team Members:

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Case Diagram:

* + User Interaction Overview:
    - Actors:
      * User – Logged-in
      * Guest – Unauthenticated visitor
      * System – Backend Logic
    - Use Cases:
      * Register an account
      * Log in
      * View Kanban board
      * Create task
      * Edit task
      * Delete task
      * Drag and drop task
      * Log out
  + A diagram of a computer

    AI-generated content may be incorrect.

Entity-Relationship (ER) Diagram:

A user can have many tasks. Each task must have one status. A status can be attached to many tasks.

* + Entities:
    - User:
      * user\_id (Primary Key)
      * username
      * email
      * password\_hash
    - Task:
      * task\_id (Primary Key)
      * title
      * description
      * status (To Do, In Progress, Done)
      * created\_at
      * updated\_at
      * user\_id (Foreign Key)
    - Status:
      * status\_is (Primary Key)
      * status\_name
  + A computer screen shot of a task

    AI-generated content may be incorrect.

Wireframes/UI Mockups:

* + Wireframe 1: Login Page
    - Emial input
    - Password input
    - Submit button
    - Link to registration
    - A screenshot of a computer screen

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  + Wireframe 2: Registration Page
    - Username
    - Email
    - Password
    - Confirm password
    - A screenshot of a computer screen

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  + Wireframe 3: Kanban Board
    - Navbar with “Logout”
    - Three columns: To Do, In Progress, Done
    - Tasks shown as cards with title and description
    - “Add Task” button below each column
    - Drag and drop functionality enabled for task cards
    - A screenshot of a computer screen

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3-Tier Architecture Diagram:

Presentation Layer:

HTML/CSS + Bootstrap: UI/UX structure and styling

JavaScript: Interactive behavior, drag and drop tasks

AJAX: Sends/receives data to/from backend

Logic Layer(Application):

PHP: Handles routing, task creation/editing, validation, session management

Process AJAX requests and updates the database accordingly

Data Layer:

MySQL: Stores users, tasks and statuses

Ensures data persistence across user sessions

A screenshot of a computer

AI-generated content may be incorrect.

Summary:

System design outlines how TaskFlow will function both visually and structurally. Every element is designed to support lightweight, intuitive and efficient task management experience, aligned with our initial proposal.