# MERN Stack Kanban Board Internship Task

## 1. Task Overview

The objective of this internship task is to develop a full-stack Kanban board application using the MERN stack. The application should allow users to register, log in, and manage their tasks through a Kanban board interface, with tasks transitioning from ”To Do” to ”In Progress” to ”Completed.” The project will test your ability to build a secure, functional, and user-friendly web application.

## 2. Technology Stack

The application must be built using the following technologies:

- **Frontend**: React.js or Next.js
- **Backend**: Node.js with Express.js
- **Database**: MongoDB with Mongoose ORM
- **API**: REST or GraphQL (choose one)

## 3. Functional Requirements

The Kanban board application must include the following features:

1. **User Authentication**:
    - Users must register with a valid email and password.
    - Users must log in to access the Kanban board.
    - Passwords should be securely hashed (e.g., using bcrypt).
    - Optional: Implement JWT or session-based authentication.
2. **Task Management**:
    - Users can create tasks with a title, description, and due date.
    - Tasks should be organized into at least three columns: ”To Do,” ”In Progress,” and ”Completed.”
    - Users can drag and drop tasks between columns to update their status.
    - Users can edit or delete their tasks.
3. **User Interface**:
    - The frontend should be responsive and user-friendly.
    - Use a CSS framework (e.g., Tailwind CSS, Bootstrap) or custom styles for a polished look.

- Implement a drag-and-drop interface for task movement (e.g., using React Beautiful DnD or similar).

## 4. Submission Requirements

To complete the task, applicants must submit the following:

- **Source Code**:
  - Host the code in a **public** GitHub or GitLab repository.
  - Include a README.md file with:
    * Project setup instructions.
    * API documentation (if REST or GraphQL is used).
    * Any additional notes for reviewers.
- **Live Application**:
  - Deploy the application to a hosting platform (e.g., Vercel, Netlify, Heroku, or Render).
  - Provide a live URL where the application can be accessed and tested.
- **Submission**:
  - Share the GitHub/GitLab repository URL and the live application URL with the internship coordinator.

## 5. Additional Guidelines

- Ensure the code is well-organized, modular, and follows best practices (e.g., proper error handling, input validation).
- Use environment variables for sensitive information (e.g., database URI, JWT secret).
- Write clean, commented code to demonstrate your understanding of the project.
- Test the application thoroughly to ensure all features work as expected.
- Optional: Add extra features like task priority, tags, or user profile management to stand out.

## 6. Contact

For any questions or clarifications, please contact the internship coordinator via email or the provided communication channel.