

# Full-Stack Developer Intern Assessment

(48-Hour Challenge)

I'll create a 48-hour full-stack developer intern assessment task that tests MERN stack knowledge along with HTML/CSS/JavaScript skills while being difficult to complete using AI alone. Here's my recommendation:

## The Challenge: Build a Recipe Management Application

Create a MERN stack application for recipe management with the following requirements:

### Backend Requirements

- Create Express API with MongoDB integration
- Implement at least 3 API endpoints: GET all recipes, POST new recipe, and PUT to update recipe
- Include data validation for recipe submissions
- Implement a custom middleware that logs API requests with timestamps

### Frontend Requirements

- Build a React application that consumes your API
- Create components for: recipe list, recipe details, and recipe submission form
- Implement client-side form validation with custom error messages
- Create a "surprise me" button that fetches and displays a random recipe

### Technical Requirements

- MongoDB for database (local or Atlas)
- Express.js for API development
- React for frontend (create-react-app or Vite)
- Node.js for backend runtime
- CSS-in-JS or CSS modules (no frameworks like Bootstrap/Tailwind)

### Unique Challenge Element

Implement a drag-and-drop recipe organizer that allows users to:

1. Sort recipes into custom-created categories
2. Enable reordering recipes within categories

3. Display a visual indicator when dragging items
4. Persist the organization to database

## **Submission Requirements**

1. GitHub repository with source code
2. 5-7 minute loom video explaining:
  - Your thought process and architecture decisions
  - How you implemented the drag-and-drop functionality
  - Challenges you faced and how you overcame them
  - Database schema design choices
  - Code walkthrough of 2-3 components you're proud of

## Judging Criteria:

### Technical Implementation (40 points)

- **API Development (10 points)**
  - All required endpoints implemented correctly (5 points)
  - Proper error handling and status codes (3 points)
  - Custom middleware implementation (2 points)
- **Frontend Development (10 points)**
  - Components structured logically (3 points)
  - State management implementation (3 points)
  - Form validation with meaningful error messages (4 points)
- **Database Implementation (10 points)**
  - Appropriate schema design (5 points)
  - Efficient queries (3 points)
  - Data validation (2 points)
- **Drag-and-Drop Feature (10 points)**
  - Smooth user interaction (3 points)
  - Correct persistence to database (4 points)
  - Visual feedback during operation (3 points)

### Code Quality (30 points)

- **Code Organization (10 points)**
  - Logical folder structure (3 points)
  - Component/module separation (4 points)
  - File naming conventions (3 points)
- **Best Practices (10 points)**
  - Consistent coding style (3 points)
  - Use of modern JavaScript features (3 points)
  - Performance considerations (4 points)
- **Documentation (10 points)**
  - Code comments where appropriate (3 points)
  - README documentation (4 points)
  - API documentation (3 points)

### Project Completion (20 points)

- **Functionality (10 points)**
  - All required features working (6 points)
  - Edge case handling (4 points)
- **User Experience (10 points)**
  - Intuitive interface (5 points)
  - Responsive design (5 points)

## Communication (10 points)

- **Video Presentation (10 points)**
  - Clear explanation of architecture (3 points)
  - Insightful discussion of challenges (3 points)
  - Quality of code walkthrough (4 points)

## Extra Credit (10 points maximum)

- Authentication implementation (+3 points)
  - Unit/integration tests (+3 points)
  - Dark/light mode toggle (+2 points)
  - Image upload for recipes (+2 points)
  - Accessibility considerations (+2 points)
- 

## Shortlisting Criteria:

Candidates must score at least:

- 30/40 in Technical Implementation
- 20/30 in Code Quality
- 15/20 in Project Completion
- 7/10 in Communication

**Total Possible Score:** 100 points (110 with extra credit)