

Here's a **complete 2-week plan** to build a **Bug Tracker / Issue Tracker** like Jira using the **MERN stack**. This project is **industry-relevant**, especially for SaaS or enterprise dashboards, and it reflects real team workflows.



Project Overview: Bug Tracker / Issue Tracker



Goal:

Build a web application where teams can:

- Create & manage projects
 - Report bugs/issues as tickets
 - Assign tickets to team members
 - Move tickets across Kanban statuses (To Do, In Progress, Done)
 - Filter, search, and sort issues
 - Collaborate like in Jira or Linear
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Tech Stack

◆ Frontend

- **React.js** – Component-based UI
- **Tailwind CSS** – Modern responsive styling
- **React DnD or react-beautiful-dnd** – Drag-and-drop Kanban board
- **Axios** – API calls
- **React Router** – Navigation

◆ Backend

- **Node.js + Express.js** – REST API
- **MongoDB + Mongoose** – Database
- **JWT + bcrypt** – User auth



Extras (Highly Recommended)

- **Context API / Redux** – Global state
 - **Socket.io** – (optional) for real-time collaboration
 - **Helmet + CORS + dotenv** – Security & configuration
 - **Multer (optional)** – File attachments (screenshots)
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Use Cases

#	Use Case	Description
1	User Authentication	Users can register/login, JWT auth used to protect routes
2	Project Management	Users can create projects, invite team members
3	Create Issue	Users can create bug reports or feature requests within a project
4	Assign Users	Assign tickets to members of the same project
5	Kanban Board	Drag tickets between “To Do”, “In Progress”, “Done”
6	Comments on Tickets	Team members can collaborate via threaded comments
7	Filter & Search Tickets	By status, priority, assignee, or keyword
8	Edit/Delete Tickets	Update or delete tickets (permission-based)
9	Role-Based Access (Optional)	Admin, manager, developer, viewer permissions
10	Upload Screenshot (Optional)	Attachments to support bug report clarity



2-Week Development Schedule



Week 1 – Core Features & Backend



Day 1: Project Setup

- Setup MERN project folder structure
 - Configure Tailwind in React
 - Setup Express server and connect MongoDB (Atlas)
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Day 2: Authentication

- User model (name, email, password)
 - Register/Login APIs with bcrypt + JWT
 - Frontend forms and login state management
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Day 3: Project Management

- MongoDB Project schema (title, description, teamMembers)
 - Routes: Create, update, delete, list projects
 - Add/remove members (email invite optional)
 - Show project list in frontend
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Day 4: Ticket Model and Backend APIs

- Ticket schema: title, description, priority, status, assignee, projectId

- API: Create, list (by project), update, delete, assign
 - Protect routes with auth middleware
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✓ Day 5: Frontend – Create & Display Tickets

- Ticket form with fields (title, priority, assignee, etc.)
 - Ticket list UI per project
 - Show ticket metadata (status, assignee, createdAt)
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✓ Day 6: UI Enhancements + Dashboard Layout

- Sidebar + dashboard layout with Tailwind
 - Project selector dropdown
 - Breadcrumbs and responsive design
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✓ Day 7: Buffer & Testing

- Fix bugs
 - Test APIs in Postman
 - Save project to GitHub
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Week 2 – Kanban, Filters, Polish, and Deployment

✓ Day 8: Kanban Drag-and-Drop

- Setup `react-beautiful-dnd`
 - Columns: “To Do”, “In Progress”, “Done”
 - Drag ticket to update status
 - Save changes via API
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✓ Day 9: Comments (Optional)

- Create comment schema (ticketId, userId, text, timestamp)
 - Add threaded comment box under each ticket
 - Display comment history
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✓ Day 10: Filtering & Search

- Add dropdown filters (status, priority, assignee)
 - Add search bar for keyword match
 - API support for filtered results
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✓ Day 11: Edit & Delete Tickets

- Edit ticket modal
 - Delete with confirmation popup
 - Authorization check for user role (basic)
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✓ Day 12: Deployment

- Deploy backend (Render/Railway)
 - Deploy frontend (Vercel/Netlify)
 - Connect with MongoDB Atlas
 - Secure environment variables
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✓ **Day 13: Polish + ReadMe + Mobile Responsive**

- Responsive styles for mobile
 - Add loader/spinner, toast messages
 - Create clean README.md for GitHub
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✓ **Day 14: Final Testing & Video Demo**


- Test end-to-end flows
 - Record a short walkthrough video
 - Share it on GitHub + LinkedIn
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YouTube Resources

Use these to follow along and adapt features:

1. Team Project Management App :


 Build & Deploy a MERN Team Project Management App | Google Auth, Roles, Workspaces & Analytic...

2.  **React DnD Tutorial** –  React Drag And Drop (dnd-kit) | Beginners Tutorial

3.  **MERN Dashboard Project (role-based auth)** – [Code With Ayan](#)

4.  **JWT Auth MERN Stack** – [PedroTech](#)

5. **Fullstack/MERN Stack Project Management Application:**

 Fullstack/MERN Stack Project Management Application | React.Js | Node.J...

Final Deliverables

- Deployed live app
 - GitHub repo with README and screenshots
 - Responsive UI with JWT auth
 - Functional drag-and-drop Kanban
 - Ticket creation, filtering, and user assignment
 - Optional: Comments, file upload
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Industry-Level Learnings

Skill	Relevance
Kanban UI	Used in agile tools (Jira, Trello, Asana)
JWT Auth	Core skill in any SaaS product
Role-Based Access	Enterprise-grade applications
Filters/Search	Common in dashboards, CMS
MongoDB Relationships	Many-to-one (tickets -> project), one-to-many (comments)
Real-time features	With Socket.io in extensions