

MyStock Inventory System - Technical Stack

Technical Stack for MyStock Inventory System

The following technical stack is proposed for the development of the MyStock inventory system, focusing on modern, scalable, and efficient technologies.

1. Frontend:

- Web: React.js (with Redux for state management)
- Mobile: React Native or Flutter for cross-platform mobile development
- Styling: Tailwind CSS or Material UI

2. Backend:

- Language: Node.js (with Express.js) or Python (with Django REST Framework)
- API: RESTful API or GraphQL (depending on data complexity)
- Authentication: JWT (JSON Web Tokens) for secure user sessions

3. Database:

- Primary: PostgreSQL (for structured, relational data)
- Alternative: MongoDB (if flexible schema is preferred)

4. Storage and Media:

- Cloud Storage: AWS S3 for file and image uploads

5. Hosting and Deployment:

- Server Hosting: AWS EC2 or DigitalOcean Droplets

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- CI/CD: GitHub Actions or GitLab CI/CD pipelines

6. Additional Tools:

- Barcode Integration: ZXing or QuaggaJS for scanning via mobile/web
- Analytics: Google Analytics or Mixpanel for user behavior tracking
- Notifications: Firebase Cloud Messaging (FCM)

7. Development Tools:

- Version Control: Git (hosted on GitHub or GitLab)
- Project Management: Jira, Trello, or Notion
- Communication: Slack or Microsoft Teams

This stack is chosen to ensure a balance between performance, scalability, and ease of development.