**Acero Applications**

**Roadmap & Overview**

**Built with Next.js + MongoDB**

**📌 Project Overview**

We are building a centralized enterprise application using Next.js + MongoDB, designed to unify multiple departmental applications into a single digital ecosystem. The key objectives are:

* **One platform**
* **Multiple Applications**
* **One shared database**
* **SSO**
* **Modular design**
* **Shared master data**
* **Centralized reporting & control**

**Technology Stack**

* 🖥️ **Frontend:** Next.js + Tailwind CSS
* ⚙️ **Backend:** Next.js API Routes
* 🗄️ **Database:** MongoDB (Schema-flexible)
* 🔄 **State Management:** RTK Query
* 🔐 **Authentication:** JWT-based with role and permission management
* ☁️ **Hosting:** Internal Servers (Frontend + API) and MongoDB Compass

**Live Modules (Functional & Integrated)**

**Global Admin**

* 🌍 Shared master modules: Users, Country, Department, Designation, Vendor, Product etc.
* ⚙️ Custom SML & AQM masters for specialized modules
* 📊 Admin dashboard

**IT Applications**

* 📞 Billing Record: Tracks calling bill usage
* 🖨️ Printer Record: Logs and manages printer activity per user
* 📈 Printer Reports: Usage-based reporting and logs
* 🔜 Deduction Reports (Upcoming): Calculates usage-based deductions (e.g., salary cutbacks)

**Inventory and Asset**

* 🛒 Track inventory purchase (PO, GRN, invoice)
* 🎫 Manage asset issuance, warranty, vendor info
* 🔧 Maintenance/AMC scheduler (Upcoming)

**Ticket Module**

* 🎫 Raise and assign tickets for IT
* ⏳ Track status with basic workflow
* 🛠️ SLA, escalations, comment logs, Tasks

**Address Book**

* 📇 Centralized contact directory employees
* 🔗 Links with departments, designation, locations
* 🔄 Shared use across other modules

**SML – Standard Material Library**

* **Upload Material:** Upload technical documents (PDFs, drawings, specs)
* **View Material Details:** View metadata, preview files, and material info
* **Download Material:** Download individual or grouped files
* **Search:** Quick search using name, code etc
* **Access Control:** Role-based permissions for upload/view

**Quote Manager**

* 📑 Create proposals with revision history
* ✅ Approval workflow & export to excel

**Hosting & Architecture**

| **Layer** | **Tech Used** | **Hosting** |
| --- | --- | --- |
| 🌐 Frontend + API | Next.js | Internal Server |
| 🗃️ Database | MongoDB | MongoDB Compass |
| 🔐 Auth & Session | JWT / RBAC | Enforced via API |
| 💾 File Storage | Local (for now) | Cloud Storage (Planned) |

**Business Benefits**

**Operational Efficiency**

* 🔄 Unified data source means no duplication across departments
* 🧩 All departments operate on same interface and data structure

**Centralized Reporting**

* 📊 Cross-functional data visibility for management
* ⚡ Quicker decisions based on real-time data

**Security & Role Management**

* 🔒 RBAC ensures users only access what they’re authorized to

**Maintenance Ease**

* 🛠️ Centralized codebase means faster updates, bug fixes, and feature rollouts

**Planned Enhancements**

| **Feature** | **Description** |
| --- | --- |
| 🔁 Approval Flow Engine | Dynamic approvals for quote, asset etc. |
| 🔔 Notification System | Email, in-app alerts (approval pending etc.) |
| 📂 Document Management | Upload, tag, store files in HR, assets, quotes |
| 📊 Custom Dashboards | Configurable dashboards per department |
| 📤 Reports & Export | CSV/PDF export of reports with filters |
| 🛠️ Ticket Enhancements | SLA timer, ticket comments, file attachments |
| 🧠 Business Intelligence | Smart recommendations, usage patterns, auto-alerts |

**Long-Term Vision**

* 👥 **HRMS with onboarding workflows** for all regional offices
* 👥 **HRMS with payroll and leave** management for branch offices
* 🔗 **Integration with biometrics**
* 💵 **Invoicing Module (Finance)**: Invoice creation, tracking, and linking to quotes
* 🚪 **Visitor Management**: Track guests, customers, suppliers; gate pass; meeting room availability
* 🔧 **Maintenance Log + AMC Tracker**: For all company assets
* 📚 **eLearning / Training Tracker**: Upload courses, track completion & feedback
* 🤖 **AI-Based Reports & Predictive Alerts**: Smart insights and anomaly detection
* 🗨️ **Acero Forum Module**: Internal discussion board for cross-department collaboration, ideas, and knowledge sharing

**Final Note**

This system is more than just software – it’s a **strategic backbone** that connects people, processes, and data across the company in one place. With this foundation, we can scale features, increase automation, and deliver real-time insights, benefiting every department and decision-maker.