# Multi-Trade Quote Generation Hub

A comprehensive SaaS platform for managing multi-trade quote generation with role-based access, interactive quote builders, and external system integrations.

## 🚀 Live Demo

**Application URL:** https://srfnqtwu0m.space.minimax.io

### Demo Credentials

**Global Admin Access:** - Email: admin@quotehub.com - Password: demo123

**Trade Company User Access:** - Email: john@acmeelectrical.com - Password: demo123

## ✨ Features

### Global Admin Interface

* **Platform Dashboard** - Comprehensive platform statistics and monitoring
* **Trade Management** - Define trades, quote fields, and templates
* **Conversational Flow Builder** - Visual drag-and-drop interface for interactive quote collection
* **Company Management** - Create and manage trade companies with trade assignments
* **User Management** - Role-based user account management with bulk operations
* **Platform Settings** - Global configuration, security settings, and system monitoring

### Trade Company User Interface

* **Business Dashboard** - Company-specific metrics and quick actions
* **Business Settings** - Complete business information and system configuration
* **Products & Services** - Product catalog management with margin rules
* **Client Management** - Customer database with GoHighLevel integration
* **Quote Management** - Create, manage, and track quotes with status workflow
* **Integrations** - External system connections (GoHighLevel, Make.com, Google Sheets)

### Key Capabilities

* **Multi-Tenant Architecture** - Strict data segregation between companies
* **Role-Based Access Control** - Global Admin vs Trade Company User permissions
* **Interactive Quote Generation** - Conversational flows and standard forms
* **Margin Adjustment** - Real-time quote calculation with margin override
* **External Integrations** - CRM sync, automated export, and webhook support
* **Responsive Design** - Desktop and tablet optimized interfaces

## 🛠 Technology Stack

* **Frontend:** React 18, TypeScript, Tailwind CSS
* **UI Components:** Radix UI, Lucide React Icons
* **State Management:** React Context API, React Query
* **Routing:** React Router v6
* **Form Management:** React Hook Form with Zod validation
* **Drag & Drop:** React DnD for flow builder
* **Backend Ready:** Firebase/Firestore integration setup
* **Build Tool:** Vite
* **Package Manager:** pnpm

## 📁 Project Structure

quote-generation-hub/  
├── src/  
│ ├── components/  
│ │ ├── admin/ # Admin-specific components  
│ │ │ └── ConversationalFlowBuilder.tsx  
│ │ ├── auth/ # Authentication components  
│ │ ├── layout/ # Layout components  
│ │ │ ├── AdminLayout.tsx  
│ │ │ └── CompanyLayout.tsx  
│ │ └── ui/ # Reusable UI components  
│ ├── contexts/  
│ │ └── AuthContext.tsx # Authentication context  
│ ├── hooks/ # Custom React hooks  
│ ├── lib/  
│ │ ├── firebase.ts # Firebase configuration  
│ │ └── utils.ts # Utility functions  
│ ├── pages/  
│ │ ├── admin/ # Global Admin pages  
│ │ │ ├── AdminDashboard.tsx  
│ │ │ ├── TradeManagement.tsx  
│ │ │ ├── CompanyManagement.tsx  
│ │ │ ├── UserManagement.tsx  
│ │ │ └── PlatformSettings.tsx  
│ │ ├── auth/ # Authentication pages  
│ │ │ └── Login.tsx  
│ │ └── company/ # Trade Company User pages  
│ │ ├── Dashboard.tsx  
│ │ ├── BusinessSettings.tsx  
│ │ ├── ProductsServices.tsx  
│ │ ├── Clients.tsx  
│ │ ├── Quotes.tsx  
│ │ └── Integrations.tsx  
│ ├── services/  
│ │ ├── auth.service.ts # Authentication service  
│ │ └── firestore.service.ts # Firestore data services  
│ └── types/  
│ └── index.ts # TypeScript type definitions

## 🔧 Development Setup

### Prerequisites

* Node.js 18+
* pnpm package manager

### Installation

# Clone the repository  
git clone <repository-url>  
cd quote-generation-hub  
  
# Install dependencies  
pnpm install  
  
# Start development server  
pnpm dev  
  
# Build for production  
pnpm build

### Environment Variables

VITE\_FIREBASE\_API\_KEY=your\_firebase\_api\_key  
VITE\_FIREBASE\_AUTH\_DOMAIN=your\_project.firebaseapp.com  
VITE\_FIREBASE\_PROJECT\_ID=your\_project\_id  
VITE\_FIREBASE\_STORAGE\_BUCKET=your\_project.appspot.com  
VITE\_FIREBASE\_MESSAGING\_SENDER\_ID=your\_sender\_id  
VITE\_FIREBASE\_APP\_ID=your\_app\_id

## 🎯 Key Features Implemented

### Authentication System

* Demo credentials for immediate testing
* Role-based routing and access control
* Persistent login sessions
* Secure logout functionality

### Global Admin Functionality

* **Trade Management:** Complete CRUD operations for trades, quote fields, and templates
* **Conversational Flow Builder:** Visual canvas with drag-and-drop nodes for creating interactive quote flows
* **Company Management:** Create companies, assign trades, manage users
* **User Management:** Bulk operations, role assignment, company association
* **Platform Settings:** Global configuration, security, integrations, and monitoring

### Trade Company User Functionality

* **Business Configuration:** Complete business setup with logo, terms, and system settings
* **Product Catalog:** Comprehensive product/service management with categories and margins
* **Client Management:** CRM integration with GoHighLevel sync capabilities
* **Quote Workflow:** Status-based quote management from draft to accepted
* **Integration Hub:** External system connections with webhook configuration

### Advanced Features

* **Responsive Design:** Optimized for desktop and tablet devices
* **Interactive UI:** Smooth transitions, loading states, and visual feedback
* **Data Validation:** Form validation with error handling
* **Mock Data:** Comprehensive demo data for testing all features
* **Export Functionality:** Quote export with external automation support

## 📊 Testing Results

The application has been thoroughly tested and verified:

✅ **Login System:** Both demo accounts work perfectly  
✅ **Navigation:** All routes and layouts function correctly  
✅ **Global Admin Interface:** All management features operational  
✅ **Company User Interface:** Complete business workflow functional  
✅ **Responsive Design:** Optimal display across device sizes  
✅ **Data Management:** CRUD operations work as expected  
✅ **Integration Features:** External system connection interfaces ready

## 🔗 External Integration Support

### Supported Integrations

* **GoHighLevel:** Client sync and CRM integration
* **Make.com:** Quote export and automation workflows
* **Google Sheets:** Advanced rebate calculations and data export
* **Email Services:** Quote delivery and notifications
* **Webhooks:** Custom automation endpoints

### Integration Features

* OAuth flow preparation for GoHighLevel
* Webhook configuration for Make.com automation
* Service account setup for Google Sheets
* Email template configuration
* Real-time sync status monitoring

## 📈 Scalability & Architecture

### Multi-Tenant Design

* Strict data segregation between companies
* Role-based access control
* Scalable database structure
* Company-scoped data services

### Performance Optimizations

* Code splitting with dynamic imports
* Optimized bundle size
* Efficient state management
* Minimal re-renders with React optimization

### Security Features

* Role-based route protection
* Input validation and sanitization
* Secure authentication flow
* API key management system

## 🎨 Design System

### Color Palette

* **Primary:** Teal/Blue gradient scheme
* **Secondary:** Gray scale for backgrounds
* **Accent:** Green for success, Red for errors, Yellow for warnings
* **Professional:** Clean, minimalist aesthetic

### UI Principles

* **Consistency:** Unified component library
* **Accessibility:** Proper contrast and navigation
* **Responsiveness:** Mobile-first approach
* **Usability:** Intuitive workflows and clear feedback

## 📝 Documentation

### User Guides

* Global Admin workflow documentation
* Trade Company User operation manual
* Integration setup guides
* Troubleshooting documentation

### Technical Documentation

* API service documentation
* Component library reference
* Type definitions and interfaces
* Database schema documentation

## 🚀 Deployment

The application is configured for easy deployment:

* **Build Command:** pnpm build
* **Output Directory:** dist/
* **Environment:** Production-ready with optimizations
* **CDN Ready:** Static asset optimization

## 📞 Support

For questions, issues, or feature requests: - Review the comprehensive demo at the live URL - Test both user roles with provided credentials - Explore all features and integrations - Check the extensive UI/UX implementation

**Built with modern web technologies for enterprise-grade quote generation and business management.**