Project 00
Quotely

Idea

Create an intelligent web platform that guides end consumers through the entire budgeting process using AI. The system assists users in structuring their needs through conversational chat, automatically generates professional briefings, facilitates distribution to multiple suppliers, and provides smart comparison of received quotes. The platform works universally for any type of service or product—from home repairs to corporate services—eliminating the complexity of requesting and comparing quotes while ensuring transparency and informed decision-making.

General Requirements

a. Develop a responsive web app that works seamlessly on mobile devices, tablets or traditional computers with a regular browser.

b. The web app needs to be user manual free, with intuitive behavior and user experience aligned with the current best practices.

c. Implement the project by the end of 2025, to present it to our customers during January 2026.

Specific Requirements

Use cases

- o **Core Flows:**
  - **AI-Guided Briefing Creation**: Users describe their needs in natural language; AI conducts contextual interview with 8-10 smart questions; generates structured, professional briefing document with cost/timeline estimates.
  - **Multi-Format Quote Reception**: Users can upload quotes via PDF/image files, share web links for suppliers to respond directly, or manually input data through structured forms.
  - **Intelligent Data Extraction**: AI automatically parses uploaded documents (PDFs, images, Word docs) to extract items, prices, timelines, and supplier contact information with 80%+ accuracy.
  - **Smart Comparison Dashboard**: Side-by-side visual comparison of all received quotes with automatic item matching, total calculations, completeness scoring, and anomaly detection (missing items, price outliers).
  - **Distribution Management**: Generate shareable briefing links, export professional PDFs with QR codes, provide copy-paste message templates for suppliers, track who viewed the briefing.
- o **Bonus Features:**
  - **Price Intelligence**: Historical price data analysis to flag quotes significantly above/below market average.
  - **Supplier Marketplace**: Pre-vetted supplier directory with ratings, specialties, and response time metrics.
  - **Negotiation Assistant**: AI suggests questions to ask suppliers and talking points for negotiation.
  - **Project Timeline Tracking**: Move from budget comparison to contract execution and delivery tracking.

Entities & Data Model (High Level)

- **User**
    - Basic info: name, email, phone, location (city/state/country)
    - Profile: company name (optional), industry type, photo
    - Preferences: preferred communication channels, typical budget ranges
    - History: created briefings, comparison sessions, saved suppliers
- **Briefing**
    - Unique ID, creation timestamp, last updated
    - Project details: title, category, description, specifications
    - Requirements: structured JSON of Q&A responses
    - Estimates: AI-generated cost range, timeline range, complexity score
    - Status: draft, active, completed, archived
    - Metadata: location, urgency level, special requirements
- **Quote/Budget**
    - Unique ID, briefing reference, submission timestamp
    - Supplier info: name, contact, company, credentials
    - Structured data: line items array (description, quantity, unit price, subtotal)
    - Totals: subtotal, taxes, discounts, final total
    - Timeline: start date, duration, delivery date
    - Attachments: original document URL, extracted confidence score
    - Status: pending review, analyzed, accepted, rejected
- **Conversation**
    - Session ID, user reference, AI model used
    - Message history: array of {role, content, timestamp}
    - Context: detected category, extracted entities, confidence scores
    - State: current step, completed sections, remaining questions
- **Comparison Session**
    - Session ID, briefing reference, creation timestamp
    - Quotes being compared: array of quote IDs
    - Analysis results: matched items, score breakdown, insights
    - User actions: notes, favorites, questions raised

Platform Features & Non-Functionals

- **Briefing Management:**
    - Conversational AI interface with context retention and natural language understanding
    - Question flow adapts based on project category (renovation, events, IT services, etc.)
    - Real-time briefing preview during conversation
    - Full edit capabilities with version history
    - Category detection with 90%+ accuracy across 20+ service types
- **Quote Processing:**
    - Multi-format document parsing (PDF, JPG, PNG, DOCX up to 10MB)
    - OCR with Tesseract/Cloud Vision for image-based documents

- AI-powered structured data extraction using Claude/GPT-4
- Currency detection and normalization
- Confidence scoring for each extracted field
- Manual override and correction interface

- **Comparison Engine:**
  - Fuzzy matching algorithm for corresponding items across quotes
  - Automatic detection of missing items in each quote
  - Visual indicators: 🏆 Best Price, ⭐ Most Complete, ⚡ Fastest Delivery
  - Completeness score (0-100%) based on briefing coverage
  - Anomaly detection with severity levels (critical, warning, info)
  - Exportable comparison reports in PDF format

- **Notifications & Communication:**
  - Email notifications for new quotes, missing info, and milestones
  - Webhook support for supplier integration
  - In-app notification center
  - Optional SMS alerts (future)

- **Privacy & Security:**
  - LGPD/GDPR compliant data handling
  - Encrypted storage of sensitive information (AES-256)
  - JWT-based authentication with refresh tokens
  - Rate limiting on all public endpoints (100 req/hour per IP)
  - Secure file upload with virus scanning
  - User data export and deletion capabilities

- **Performance & Scalability:**
  - AI response time < 3 seconds for chat messages
  - Document extraction completion < 30 seconds
  - Dashboard load time < 2 seconds
  - Support for 100 concurrent users in MVP
  - Horizontal scaling architecture with Redis queue for heavy tasks
  - CDN integration for file delivery
  - Database indexing on frequently queried fields

- **Accessibility & i18n:**
  - WCAG 2.1 Level AA compliance
  - Portuguese as primary language
  - English support for international users
  - Keyboard navigation throughout
  - Screen reader compatible semantic HTML
  - High contrast mode support

Deliverables

- **Technical Deliverables:**
  - **Architecture Diagram**: Complete system architecture showing frontend (React), backend (n8n workflows), database (PostgreSQL), file storage (S3), and AI integrations (Claude/GPT-4).

- **Data Model Diagram**: Entity-relationship diagram with all tables, relationships, and key indexes.
- **API Documentation**: OpenAPI/Swagger specs for all endpoints with examples.
- **n8n Workflow Configurations**: Exportable JSON files for all 4 core workflows (briefing creation, quote processing, comparison engine, notifications).

- **Product Deliverables:**
  - **Clickable Prototype**: Figma/navigable web system implementing core flows:
    - Complete briefing creation journey (chat → preview → approve)
    - Quote upload and extraction flow
    - Comparison dashboard with 3+ sample quotes
    - User authentication and dashboard
  - **Admin Panel**: Basic interface for monitoring usage, managing users, viewing system health.
  - **Landing Page**: Marketing site with value proposition, demo video, and signup form.

- **Documentation Deliverables:**
  - **User Guide**: Step-by-step tutorials for all major features with screenshots.
  - **Supplier Integration Guide**: Instructions for suppliers on how to respond to briefings.
  - **Deployment Guide**: Infrastructure setup, environment configuration, CI/CD pipeline.
  - **Product Roadmap**: Visual timeline of MVP → v1.1 → v2.0 features with priorities.