RFP Automation System – Requirements Document

1. Project Overview

The RFP Automation System is designed to streamline the ingestion, processing, search, and retrieval of RFP (Request for Proposal) documents. By automating these steps, the system reduces manual effort, improves accuracy, and accelerates the proposal workflow. The system will: - Support efficient Q&A; search. - Enable export of curated content for reuse and reporting. - Provide a centralized repository of RFP knowledge. This ensures quick access to relevant information, promotes consistency in responses, and enhances overall productivity in the proposal process.

2. Objectives

- Automate RFP content ingestion (PDFs, scanned documents).
- Provide a searchable repository of Q&As.;
- Improve retrieval accuracy using hybrid search (keyword + semantic).

3. Scope

MVP Scope

Document Ingestion

- Upload RFP documents (initially PDF support, later expand to Word, Excel, etc.).
- Parse text from uploaded documents.
- Extract Q&A; pairs and store them in the database for reusability.

Search

- Implement search functionality to retrieve existing proposed answers from the central repository.
- Display ranked Q&A; matches based on relevance.

Database & Storage

- PostgreSQL with pgvector for embeddings and semantic search.
- S3 (optional) for storing original files/images.
- Store:
- - Documents → Original RFP files (PDFs, Word, etc.).
- - Extracted Q&A; pairs → Structured questions and answers.
- - Metadata → Document details (e.g., title, client, category, upload date).

UI/UX

- Simple web interface for uploading and searching RFPs.
- Display search results with ranked Q&A; matches.

Future Enhancements

Curation Workflow

- Approve and promote canonical Q&As; with version control.

Authentication & Authorization

- Enable SSO (Azure AD / Entra ID integration).
- Role-based access (viewer / curator / admin).

Background Processing

- Use job queue (BullMQ + Redis) for ingestion, OCR, and embedding tasks.

Feedback Loop

- Add 'Helpful / Not Helpful' buttons to improve search ranking over time.

Advanced Filters

- Filter results by region, deal stage, offering, compliance category, etc.

Analytics & Reporting

- Track document usage, search trends, and user activity.

Scalability

- Option to switch from local embeddings to a managed API (for faster, more accurate results).