

StakeHolders

ST T	Stakeholder	Mô tả (Description)
1	Project Sponsor	Senior Management/Executive Leadership (e.g., CTO/COO). The person who approves the budget, defines the strategic objectives, and gives final approval on the project's scope and outcome.
2	Project Manager	The student team member responsible for project management. Ensures the project stays on track, acts as the main point of contact, and manages the scope, timeline, and resources.
3	End Users/Internal Staff	All employees within the company who will use the chatbot for internal customer support, information retrieval, and notifications. They are the ones who evaluate the usability and performance of the chatbot.
4	Content/Knowledge Managers	Specialists responsible for internal documentation and processes (e.g., HR, Administration Dept.). They are accountable for the quality of input data via the "Update/Knowledge upload" stream.
5	IT/Infrastructure Team	The company's IT department. They are responsible for the deployment environment, system security, integration with existing infrastructure, and ensuring stable chatbot operation.

6	Subject Matter Experts (SMEs)	Internal professional experts (e.g., Head of Accounting, Sales). They provide validation and accuracy checks for the AI-generated responses (often working alongside Content Managers).
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Functional Requirements Specification

FR.1. Knowledge Management Requirements (Upload/Update Knowledge)

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1.1	Upload	The system must allow Knowledge Managers to upload various types of internal documents (e.g., PDF, DOCX, TXT, CSV) via the web interface to serve as the AI's knowledge source.
1.2	View	The system must allow viewing, searching, and categorizing the uploaded knowledge sources.
1.3	Delete	The system must allow deletion or deactivation of outdated or inaccurate knowledge sources.
1.4	Index	The system must automatically process and index the uploaded data to prepare it for AI retrieval and answering (RAG - Retrieval-Augmented Generation).

FR.2. Web Interface Requirements (Usability)

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2.1	Chat	The web interface must provide an intuitive chat area, allowing users to input questions and receive answers from the chatbot.
2.2	Multi-platform responsive	The web interface must be user-friendly and responsive across various screen sizes (desktop, mobile devices).
2.3	History	The system must display the current user's conversation history.
2.4	Admin monitor	The system must have a separate administration interface to perform the functions specified in FR.1 and FR.3.

FR.3. Group Chat Session and Access Management Requirements (Invite member)

ST T	Requirements	Description
3.1	Authentication	The system must require login/authentication to access and use any feature.
3.2	Create group chat	The system must allow any logged-in user (customers, sales staff, etc.) to create a new group chat session with the AI agent.
3.3	Invite member to group chat	The group creator/owner must be able to invite members to the group chat session by entering the invitee's email address.

3.4	Send email	The system must automatically send an invitation email to the invitee's email address, along with an access link to the group chat.
3.5	Role	The system must define and manage user roles within the group chat (e.g., Owner/Creator, Member), allowing the Owner to manage membership (invite, remove).
3.6	Concurrent	The system must support multiple users concurrently interacting with and viewing the AI agent's responses within the same group chat session.
3.7	Leave group	The system must allow a member to leave the group chat voluntarily at any time.

FR.4. Chatbot AI Core Requirements

ST T	Requirements	Description
4.1	AI Answer	The Chatbot must be capable of extracting information from the internal knowledge base (FR.1) to answer specific employee questions.
4.2	AI Fallback	When no suitable information is found in the knowledge base, the chatbot must provide a friendly fallback message instead of giving incorrect answers (e.g., "I apologize, this information has not yet been updated in the system").

4.3	AI Context	The Chatbot must be able to maintain context within a conversation to answer follow-up questions logically.
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Non-functional requirements:

- Loading pages takes under a second. Transitions between components within a screen have response time under 0.5 second.
- A user's password needs to be hashed before inserting into the database.
- Users can efficiently navigate through the website after an hour of interacting.
- Maintain availability of 90% and response time under 3 seconds during high traffic.
- The website must be responsive.
- Data in the database must be backed up once every 2 days.
- The website can handle 100 users simultaneously.
- The website can run on most of the popular browsers like Chrome, Firefox, Safari, Edge,...
- The website needs to adhere to data protection regulations.
- In the event of failure, the website needs to be recovered within 24 hours.