

Testing & Iteration Plan — Change Management FAQ Chatbot

This plan outlines test scenarios, steps, expected results, and an iteration loop to continuously improve relevance and usability. Screenshots from your latest run are included below (if available).

Test Scenarios

TS1: Startup

Goal: Start server and open UI

Steps:

1. Run: `node app.js`
2. Open `http://localhost:3000`
3. Expect console log and visible greeting in UI.

TS2: Structured Match

Goal: Ask: "what is a change"

Steps:

- Expect guidance on submitting a change.
- Confidence $\geq 70\%$ (typical).

TS3: Freeze Policy

Goal: Ask: "freeze"

Steps:

- Expect freeze period rules.
- Confidence $\geq 70\%$ (typical).

TS4: Low-Confidence Query

Goal: Ask: "tech"

Steps:

- Expect fallback: "I couldn't confidently match that. Please rephrase."
- Shows (Low confidence).

TS5: /kb Endpoint (Full App)

Goal: Open /kb (only in full PDF version)

Steps:

- Expect a JSON array of KB items.

TS6: Auto-Reload (Full App)

Goal: Replace knowledgebase.pdf

Steps:

- Expect console: [KB] PDF changed → Reloading...
- New answers become available without restart.

Iteration Loop

- Collect unknown/low-confidence queries from users.
- Add/expand Q/A in knowledgebase.pdf to cover those intents.
- Rephrase Q lines to include common synonyms and variants.
- Tune threshold (0.35 → 0.30 or 0.40) and re-test precision vs recall.
- Consider elevating to semantic search (embeddings) if keyword recall is insufficient.

Screenshots

image.png

