Business Requirement Document (BRD)

Project Name

Demo Assist

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Table of Contents

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1. Executive Summary

The "Agentic Demo Bot" is an innovative web-based solution designed to automate product demonstrations, starting with the "AI Assist Module" (specifically the PO Assist module for handling user stories in Jira). Unlike traditional recorded demos, this bot leverages AI, automation, and real-time interaction to deliver a full-fledged demo by visually navigating product screens and providing synchronized audio explanations. Users can interrupt the demo at any point to ask questions, which the bot answers in audio format, pausing and resuming seamlessly. The application aims to save time for companies by eliminating manual demo efforts while enhancing customer understanding through interactive, on-demand demonstrations.

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2. Problem Statement

Manual product demonstrations are time-consuming, resource-intensive, and lack the flexibility to address real-time customer queries. Pre-recorded demos fail to adapt to user interruptions or provide detailed technical and functional explanations on demand. Companies need an intelligent, automated system that can showcase products like the AI Assist Module, navigate its screens, explain features in sync with visuals, and answer questions dynamically, improving efficiency and customer experience.

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3. Proposed Solution

The "Agentic Demo Bot" is a web application that uses AI and automation to deliver live, full-fledged product demonstrations. Initially focused on the AI Assist Module's PO Assist feature, the bot will:

- Accept a Web URL (for Web DOM) and a workflow document as inputs.
- Open a window to visually navigate product screens using Selenium, with synchronized audio narration.
- Pause both visual and audio components when interrupted, answer user queries in audio format, and resume the demo.
- Offer a simple, minimalistic frontend interface for ease of use.

The bot will be trained with the provided inputs to understand and demonstrate the product effectively. Future enhancements will enable dynamic demos for any product and session recording.

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4. Project Scope

In-Scope

- Development of a web application that accepts a Web URL (for Web DOM) and a workflow document as inputs.
- A full-fledged demo of the AI Assist Module, delivered via visual navigation (using Selenium) and synchronized audio narration.
- Real-time user interruption handling, pausing both visual and audio components, answering queries in audio format, and resuming the demo.
- Backend system to process the Web URL (extracting Web DOM) and workflow document for demo execution.
- Support for demoing the AI Assist Module's PO Assist feature in Jira.

Out-of-Scope

- Dynamic demo support for multiple products using generic inputs (to be implemented in future phases).
- Video recording of demo sessions (planned for later stages).
- Integration with external systems beyond Jira for the initial phase.
- Advanced frontend features (e.g., complex visualizations or analytics).

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5. Business Objectives

- Automate product demonstrations to reduce manual effort and save time for companies.
- Enhance customer understanding of the AI Assist Module through interactive, audio-guided demos with visual navigation.
- Enable real-time query resolution during demos to improve user engagement.
- Deliver a user-friendly, minimalistic interface for seamless interaction with the bot.
- Lay the foundation for a scalable solution capable of demoing any product in the future.

6. Stakeholder Identification

Stakeholder	Role	Responsibilities
End Users	Customers	Initiate demos, ask questions, and evaluate products.
Product Coach	Project Guide	Provide requirements and validate deliverables.
Development Team	Implementers	Design, develop, and test the application.
Project Manager	Overseer	Ensure timely delivery and alignment with objectives.
Sales/Marketing Team	Beneficiaries	Use the bot to showcase products to clients.
Technical Coach	Technical Guide	Offer technical guidance and ensure implementation aligns with best practices.

7. Technical Stack

- **Frontend**: React.js (for a simple, user-friendly interface).
- **Backend**: FastAPI (for handling bot logic and real-time processing).
- **Automation**: Selenium (for screen navigation and interaction).
- **AI/LLM**: OpenAI LLM or similar (for understanding product details and answering queries).
- **Audio**: Text-to-Speech (e.g., Google TTS or ElevenLabs) for narration and responses.
- **Input Processing**: Python libraries (e.g., BeautifulSoup for DOM parsing, PyPDF2 for document processing).
- **Real-Time Communication**: WebSocket (for seamless query handling).

8. Requirements

Functional Requirements

1. **Demo Initiation**
   - Users can start a demo of the AI Assist Module by providing a Web URL (for Web DOM) and a workflow document via the frontend.
   - The bot processes the Web URL to extract the Web DOM and loads the workflow document for demo execution.

2. **Full-Fledged Demo Delivery**
   - o The bot opens a window to visually navigate the AI Assist Module screens using Selenium, following the workflow document.
   - o Audio narration is generated in real-time, synchronized with the visual navigation, explaining each screen and feature.
3. **User Interruption Handling**
   - o Users can interrupt the demo at any point by speaking or typing a query (e.g., "What does this do?").
   - o Upon interruption, the bot pauses both visual navigation and audio narration.
   - o The bot processes the query and responds in audio format only, using AI/LLM to provide technical or functional answers.
   - o After answering, the bot resumes the demo from the paused point, continuing visual navigation and audio narration.
4. **Frontend Interface**
   - o A simple interface with fields to input the Web URL and upload the workflow document, plus buttons to start/stop the demo.
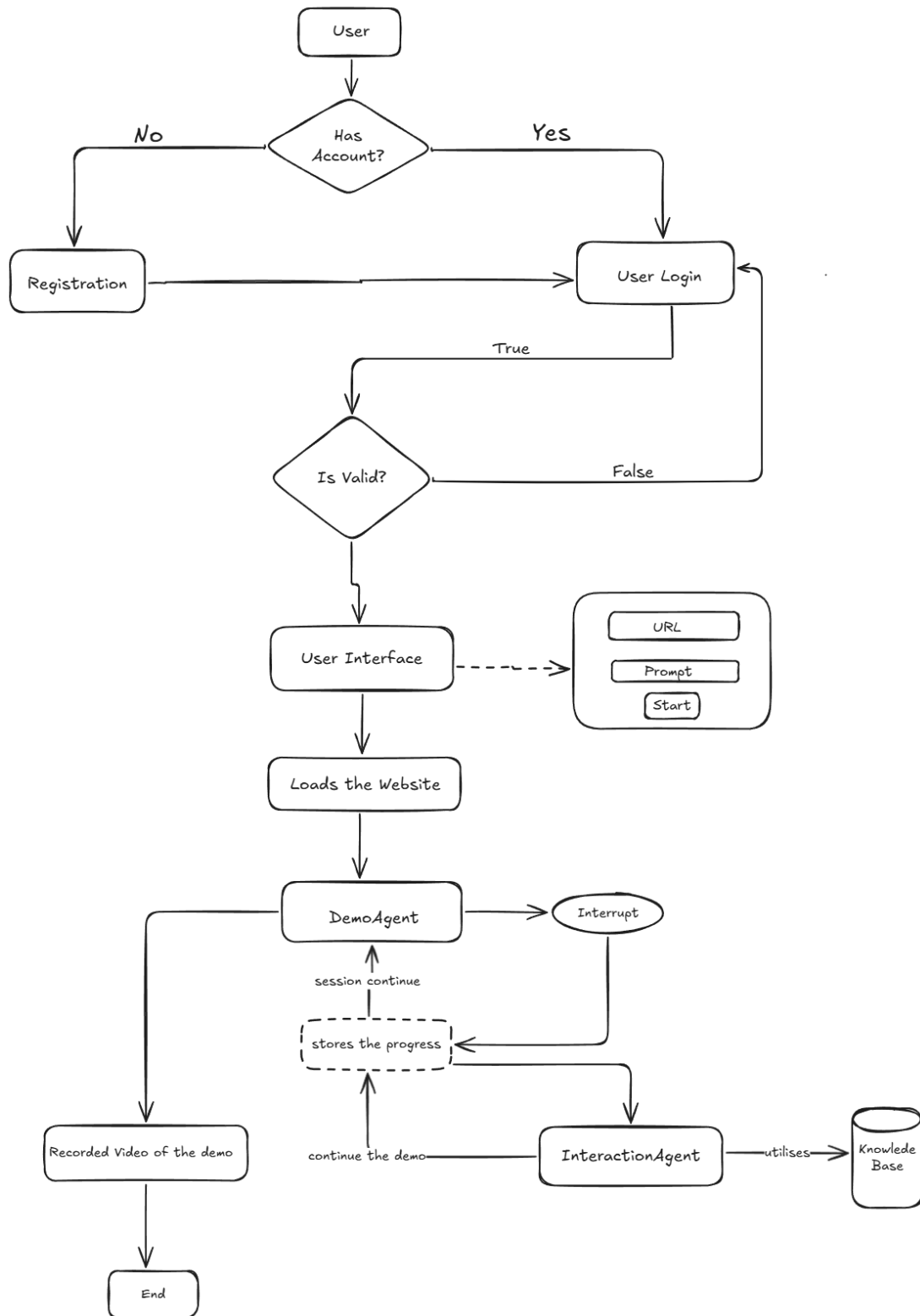   - o Display of the demo window showing real-time screen navigation.

Non-Functional Requirements

- **Usability**: The interface must be intuitive, with clear instructions for inputting the Web URL and workflow document.
- **Performance**: Visual navigation and audio narration must be synchronized with minimal latency (<2 seconds); query responses must also occur within 2 seconds.
- **Reliability**: The bot must pause and resume seamlessly during interruptions; audio narration and responses must be clear and accurate.
- **Scalability**: The backend should support future expansion to multiple products.

Business Rules

- The bot only demos the AI Assist Module (PO Assist) in the initial phase.
- Users must provide valid queries related to the product for the bot to respond.
- Audio output is mandatory for all explanations and responses.

9. Flow Diagram

User

Has Account?

No → Registration

Yes → User Login

True

Is Valid?

False

User Interface

URL
Prompt
Start

Loads the Website

DemoAgent → Interrupt

session continue

stores the progress

continue the demo → InteractionAgent → utilises → Knowlede Base

Recorded Video of the demo

End

10. Use Cases

Use Case 1: Start Demo

- **Actor**: End User
- **Description**: User initiates a demo of the AI Assist Module by providing a Web URL and workflow document.
- **Preconditions**: User is on the frontend interface; valid Web URL and workflow document are provided.
- **Postconditions**: Bot opens a window, begins navigating screens, and narrates in audio, fully synced.

Use Case 2: Interrupt and Query During Demo

- **Actor**: End User
- **Description**: User interrupts the demo by asking a question (e.g., "How does this feature work?") via text or voice.
- **Preconditions**: Demo is in progress with visual navigation and audio narration.
- **Postconditions**:
  1. Bot pauses both visual navigation and audio narration immediately.
  2. Bot processes the query and responds in audio format.
  3. Bot resumes the demo from the paused point, continuing visual and audio components in sync.

Use Case 3: Stop Demo

- **Actor**: End User
- **Description**: User stops the demo via the frontend.
- **Preconditions**: Demo is in progress.
- **Postconditions**: Bot halts navigation and narration.

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11. Assumptions and Constraints

Assumptions

- Users have basic knowledge of the AI Assist Module and Jira.
- The Web URL provides access to a valid Web DOM, and the workflow document is accurate and complete.
- Internet connectivity is available for Selenium, audio generation, and Web URL processing.

Constraints

- The project must be completed within the allocated timeline (3 weeks).
- The bot is limited to the AI Assist Module (PO Assist) for the initial release.
- Audio responses must be in English only for the first phase.

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12. Risk Management

Potential Risks

- **Technical Complexity**: Challenges in integrating Selenium with real-time AI responses and audio synchronization.
- **Input Quality**: Inaccurate Web DOM or workflow document may lead to demo errors.
- **User Experience**: Audio latency or unclear narration may frustrate users.

Mitigation Strategies

- **Technical Complexity**: Conduct iterative testing of Selenium, AI, and audio integration.
- **Input Quality**: Validate Web URL accessibility and workflow document accuracy before deployment.
- **User Experience**: Optimize audio generation and test with sample users for clarity and responsiveness.

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13. Acceptance Criteria

- The bot successfully processes a Web URL and workflow document to deliver a full-fledged demo of the AI Assist Module (PO Assist) in Jira.
- Visual navigation and audio narration are synchronized and accurately reflect the workflow document.
- The bot pauses both visual and audio components upon user interruption, responds to queries in audio format with at least 90% accuracy, and resumes seamlessly.
- The frontend interface accepts Web URL and workflow document inputs and supports demo control and query submission without errors.
- Demo execution completes without crashes or significant delays.

14. Future Scope

- **Dynamic Product Support**: Enable the bot to demo any product by accepting generic Web URLs and workflow documents.
- **Video Recording**: Record demo sessions and store them for future reference.
- **Multi-Language Support**: Extend audio narration and responses to additional languages.
- **Advanced Frontend**: Add features like demo progress tracking or visual overlays.

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15. Appendices

- **Reference Materials**:
  - Selenium Documentation: https://www.selenium.dev/documentation/
  - FastAPI Documentation: https://fastapi.tiangolo.com/
  - OpenAI API: https://platform.openai.com/docs/
- **Input Samples**:
  - Sample workflow document (to be provided).
  - Sample Web URL for testing (to be provided).