**Software Requirements**

**Specification (SRS)**

**for**

**AI-Powered Digital Adoption**

**Plugin for Website**

[Version 1.0]

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**Revision History**

|  |  |  |
| --- | --- | --- |
| **Name** | **Date** | **Reason For Changes** |
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**1. Introduction**

**1.1 Purpose**

The purpose of this document is to define the software requirements for the AI-Powered Digital Adoption Assistant. It is a browser plugin designed to serve as a Digital Adoption Platform (DAP) tool. It will have an AI chatbot, UI element recognition feature, and guided walkthrough overlays to assist users in navigating complex web applications. The plugin will enhance user onboarding and support them by offering contextual, interactive, and adaptive guidance directly within the web interface.

It will provide step-by-step guidance by showing messages, tips, or pop-ups on the screen while the user is using the app. This will make it easier for people to understand what to do without following a video tutorial or a handbook manual by providing contextual help, interacting with elements on a page, and enhancing user experience and onboarding.

**1.2 Document Conventions**

This SRS follows standard conventions for software requirement specifications. Requirements are listed using hierarchical structure, with high level requirement providing content for more detailed requirements. Each requirement statement is assigned its own priority level to denote its importance. Additionally, key terms and concept may be highlighted or italicized for clarity and emphasis.

**1.3 Intended Audience and Reading Suggestions**

* **Developers**: For system architectural design and implementation.
* **Project Managers**: For project planning, timeline estimation, and resource planning.
* **Stakeholders**: To understand project deliverables and strategic vision.
* **Testers**: For designing test cases based on functional requirements.

**1.3 Project Scope**

The AI-Powered Digital Adoption Assistant aims to simplify and enhance user interaction with complex web applications by offering context-aware support. It will be an AI-integrated Digital Adoption Platform (DAP) that overlays directly onto existing websites.

The initial Minimum Viable Product (MVP) will focus on Chrome browser compatibility, integration with open-source LLM-based APIs, and support for configurable documentation sources.

**The MVP (Minimum Viable Product)** will include:

* A chatbot UI embedded as a plugin on any website.
* Integration with LLM API for conversational processing.
* DOM interaction (scrolling, highlighting elements, prompting clicks).
* Dialog Box with Text Description for more clarity about the action.
* Ability to walk through web tasks with step-by-step guidance.

**Future versions** may include support for voice interactions, advanced analytics, and enterprise CRM (Customer Relationship Management) System integrations. That can involve:

* Integration with application-specific documentation for domain training.
* Local LLM (Large Language Model Support).
* Smart video assistance modules.
* Mascot-guided interactive user navigation.

**1.4 References**

* WalkMe and Whatfix documentation
* LLM API documentation
* Chrome Extension Developer Guide

**2. Overall Description**

**2.1 Product Perspective**

This product is a standalone plugin compatible with modern web browsers. It will overlay on existing websites and provide real-time guidance using AI-generated responses and UI annotations.

Unlike traditional help documentation, this tool operates directly within the user's workflow, making onboarding and navigation more intuitive. It is built to serve both end users who need in-the-moment support and businesses that want to improve user engagement without altering their core application.

**2.2 Product Functions**

**2.2.1. Customer/End-User Service**

This is what regular website visitors interact with.

* AI chatbot overlay on websites.
* Real-time help based on queries.
* Step-by-step instructions and DOM related UI highlights.
* Quick tooltip boxes for assistance.

**2.2.2. Admin/Business Service**

This is for website owners or companies who integrate the plugin into their site.

* Dashboard to manage chatbot behavior
* Upload documentation or FAQs for training
* Set custom flows (e.g., onboarding walkthroughs)
* Analytics (user queries, engagement stats)
* Branding/custom styling options

**2.3 User Classes and Characteristics**

* **End Users**: These are general website visitors who interact with the plugin to receive real-time guidance It can be anyone using a website, no technical knowledge needed.
* **Admins**: Representing businesses or platform owners, admins are responsible for configuring the chatbot, uploading documentation or FAQs.
* **Developers**: Technical personnel responsible for maintaining, customizing, and extending the plugin functionality. They ensure compatibility with browser updates, optimize performance, and address integration issues.

**2.4 Operating Environment**

* Google Chrome (latest versions)
* LLMs API
* Windows/Linux/macOS operating systems

**2.5 Design and Implementation Constraints**

* Limited by browser DOM access and extension API restrictions
* Data privacy and API rate limits
* Real-time performance based on internet bandwidth and API response

**2.6 User Documentation**

* User manual (plugin installation and usage)
* Admin Manual (uploading user guide and inputs for other features)
* FAQ and troubleshooting guide

**2.7 Assumptions and Dependencies**

* Users have access to supported browsers
* Open-source LLM-based APIs are reliably available
* Application documentation is accessible and structured

**3. System Features**

**3.1 Feature 1 – Interactive AI Chatbot**

Enables users to ask queries and receive context-based guidance.

* Chatbot should accept natural language queries
* Display suggestions and actions with clickable buttons
* Integrate LLM API for processing

**3.2 Feature 2 – Website Plugin**

A browser plugin that detects web elements and overlays instructions.

* Detect and highlight elements using CSS selectors
* Render overlay instructions dynamically
* Interact with browser scrolling

**3.3 Feature 3 – Guided UI Walkthroughs**

Provides step-by-step walk-throughs of software usage.

* Trigger guide based on query intent
* Walk through via scrolling and highlighting

**3.4 Feature 4 – Description-Based Dialog Box**

Shows short dialog boxes near highlighted UI elements to assist users.

* Display a dialog box near the focused element.
* Show brief messages about the next action.
* Update content based on user's step.
* Use documentation for LLM prompts and responses.
* Allow the user to close or minimize the box.

**4. External Interface Requirements**

**4.1 User Interfaces**

* Chatbot interface on the bottom right corner
* Highlight boxes with tooltips on elements

**4.2 Hardware Interfaces**

* No specialized hardware required; only browser and internet access

**4.3 Software Interfaces**

* Open-source LLM APIs
* Chrome Extension APIs
* Access to application documentation

**4.4 Communication Interfaces**

* HTTP/HTTPS for API communication
* WebSocket for live guidance if extended.

**5. Other Nonfunctional Requirements**

**5.1 Performance Requirements**

* Responses should load within 3 seconds
* Plugin should not exceed 50MB in size

**5.2 Security Requirements**

* Access control for admin panel
* Secure handling of API tokens

**5.2 Software Quality Attributes**

* Usability: Intuitive UI
* Reliability: High uptime and response accuracy
* Maintainability: Modular design for future updates

**6. Appendix**

**6.1 Acronyms and Abbreviations**

* **DAP** – Digital Adoption Platform
* **LLM** – Large Language Model
* **MVP** – Minimum Viable Product
* **DOM** – Document Object Model
* **CRM** - Customer Relationship Management
* **UI** – User Interface
* **API** – Application Programming Interface
* **WCAG** – Web Content Accessibility Guidelines
* **HTTP** – Hypertext Transfer Protocol
* **HTTPS** – Hypertext Transfer Protocol Secure