

QUẢN LÝ DỰ ÁN PHẦN MỀM



SOFTWARE REQUIREMENTS

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The Tool For Content Management

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Software Requirements Specification

1. Introduction

This document is to gather and analyze and give an in-depth insight of the complete system of The Tool For Content Management (TFCM) by defining the specifications of the system. Nevertheless, it also concentrates on the capabilities required by stakeholders and their needs while defining high-level product features.

1.1 Purpose

The purpose of the document is to collect and analyze all assorted ideas that have come up to define the system, and its requirements with respect to consumers. Also, we shall predict and sort out how we hope this product will be used to gain a better understanding of the project, outline concepts that may be developed later, and document ideas that are being considered, but may be discarded as the product develops.

In short, the purpose of this SRS document is to provide a detailed overview of our software product, its parameters and goals. This document describes the project's target audience and its user interface, hardware and software requirements. It defines how our client, team and audience see the product and its functionality. Nonetheless, it helps any designer and developer to assist in software delivery lifecycle (SDLC) processes.

1.2 Scope

This SRS aims at specifying requirements for software to be developed but it can also be applied to assist in the selection of in-house and commercial software products. The standard can be used to create software requirements specifications directly or can be used as a model for defining an organization or project specific standard. It does not identify any specific method, nomenclature, or tool for preparing an SRS.

1.3 Definitions, Acronyms, and Abbreviations

Configuration	It means a product which is available / Selected from a catalog can be customized.
TFCM	The Tool For Content Management
HTTPS	Hypertext Transfer Protocol Security
SDLC	Software Development Life Cycle

1.4 References

1.5 Overview

The remaining sections of this document provide a general description, including characteristics of the users of this project, the product's hardware, and the functional and data requirements of the product.

2. Overall Description

This document contains the problem statement that the current system is facing which is hampering the growth opportunities of the company. It further contains a list of the stakeholders and users of the proposed solution. It also illustrates the needs and wants of the stakeholders that were identified in the brainstorming exercise as part of the requirements workshop. It further lists and briefly describes the major features and a brief description of each of the proposed systems.

The following SRS contains the detailed product perspective from different stakeholders. It provides the detailed product functions of TFCM with user characteristics permitted constraints, assumptions and dependencies and requirements subsets.

3. Functional Requirements

This subsection contains the requirements for the system. These requirements are organized by the features discussed in the vision document. Features from vision documents are then refined into use case diagrams and sequence diagrams to best capture the functional requirements of the system. All these functional requirements can be traced using a traceability matrix.

3.1 Document management

3.1.1 Description

Provides the user to create new documents, modify and save them, and organize files into folders for easy access and organization.

3.1.2 Priority

Critical

3.1.3 Functional requirements

The system shall allow the user to create new documents, save them to the database and display on the user's file manager.

The system shall allow the user to open the document editor of the chosen file.

The system shall allow the user to save the changes made to the document into the version history.

The system shall allow the user to create folders and organize the documents in folders from the user document manager.

3.2 Document editing and customization

3.2.1 Description

Allows users to create, edit and format text content with options for font size, text color, text alignment, styles, headers, footers and table of contents.

3.2.2 Priority

Critical

3.2.3 Functional requirements

The system shall allow the user to modify text content in the system's text editor.

The system shall provide advanced formatting options and save the configuration of the document.

The system shall allow the user to save the changes made to the document to the version history.

3.3 Media support

3.3.1 Description

Enables users to insert images, tables, charts and hyperlinks into documents to enhance visual appeal and interactivity.

3.3.2 Priority

High

3.3.3 Functional requirements

The system shall allow the user to upload images to the document in the text editor.

The system shall allow the user to create tables and charts in the document.

The system shall allow the user to customize the hyperlinks in the text editor.

3.4 Collaboration tools

3.4.1 Description

Enables real-time collaboration among multiple users, allowing them to work on the same document simultaneously and track changes.

3.4.2 Priority

Critical

3.4.3 Functional requirements

The system shall allow real-time editing between multiple users who have access to the document.

The system shall allow users to create comments and suggestions.

The system shall save and display comments and suggestions of multiple users made to a document.

3.5 Document Auto-save

3.5.1 Description

Automatically saves changes to documents at regular intervals to prevent data loss in case of unexpected disruptions.

3.5.2 Priority

Critical

3.5.3 Functional requirements

The system shall automatically save changes to documents at regular intervals.

3.6 Revision tracking

3.6.1 Description

Keeps track of document changes made and saves version history, allows users to revert to previous versions, and view changes made over time.

3.6.2 Priority

Critical

3.6.3 Functional requirements

The system shall keep track of the changes made to the document and store them in the database with version number, date, and author of the changes.

The system shall allow the user to view the version history of the documents.

The system shall allow the user to revert to previous versions of a document.

3.7 Voice to text

3.7.1 Description

Allows users to dictate their text using voice recognition technology. It converts spoken words into written text, offering an alternative to traditional typing, which can be especially useful for users with disabilities or those who prefer dictation.

3.7.2 Priority

Low

3.7.3 Functional requirements

The system shall convert the user's spoken words into text and add the text into the current line in the document.

3.8 Image to text using OCR

3.8.1 Description

Allows users to dictate their text using voice recognition technology. It converts spoken words into written text, offering an alternative to traditional typing, which can be especially useful for users with disabilities or those who prefer dictation.

3.8.2 Priority

Low

3.8.3 Functional requirements

The system shall allow the user to upload images that contain text.

The system shall process the image using OCR tools to retrieve text.

The system shall allow the user to use the text in the text editor.

3.9 Keywords suggestion

3.9.1 Description

Provides users with relevant keyword suggestions as they type, helping to enhance the content's search engine optimization (SEO) and improve the overall quality of the writing. The suggestions are generated based on the context of the text and popular search trends.

3.9.2 Priority

Low

3.9.3 Functional requirements

The system shall provide the user with text suggestions based on the context of the user's text and popular search trends.

3.10 Spelling check and grammar correction

3.10.1 Description

Automatically checks spelling and grammar errors in the text and suggests corrections to improve writing accuracy.

3.10.2 Priority

Low

3.10.3 Functional requirements

The system shall automatically check spelling and grammar errors in the text and suggests corrections

3.11 Export and sharing

3.11.1 Description

Allows users to export documents to different file formats (e.g., PDF, DOCX) and share them via email, link, or social media.

3.11.2 Priority

High

3.11.3 Functional requirements

The system shall allow the user to export documents to different file formats (e.g., PDF, DOCX).

The system shall allow the user to share documents via email, link, or social media.

3.12 Word count and readability analysis

3.12.1 Description

Counts the number of words, characters and paragraphs in the document and provides readability scores to assess the complexity of the content.

3.12.2 Priority

High

3.12.3 Functional requirements

The system shall provide the number of characters, words and paragraphs in a document.

The system shall provide a readability score of a document.

3.13 Template library

3.13.1 Description

Offers a variety of pre-designed templates for different document types (e.g., resumes, reports, presentations) to help users get started quickly.

3.13.2 Priority

Low

3.13.3 Functional requirements

The system shall allow the user to view and choose the template from the library.

The system shall make a copy version of the template to the user's document manager and allow the user to edit after the user has chosen the template.

The system shall allow the user to create and upload the template to the library.

3.14 Cloud Storage

3.14.1 Description

Integrates with cloud storage services (e.g., Google Drive, Dropbox) to save, sync and access documents from anywhere with an internet connection.

3.14.2 Priority

High

3.14.3 Functional requirements

The system shall require user login to a cloud storage account (Google Drive, Dropbox, etc).

The system shall allow the user to save files, sync content or access files from online storage.

4. Non-Functional Requirements

4.1 Applicable Standards

- **Privacy and personal data protection standards:** Ensure compliance with regulations and privacy rights such as GDPR (General Data Protection Regulation) and CCPA (California Consumer Privacy Act).
- **Network connectivity standards:** Comply with relevant network connectivity standards and protocols, including TCP/IP (Transmission Control Protocol/Internet Protocol) and HTTP (Hypertext Transfer Protocol).
- **Operating system and platform standards:** Ensure compliance with standards related to operating systems and platforms such as Windows, macOS, iOS, and Android.
- **Quality and safety standards:** Apply quality and safety standards like ISO 9001 (Quality Management System) and other relevant industry-specific standards to ensure product quality and safety.
- **Accessibility standards:** Adhere to accessibility standards such as WCAG (Web Content Accessibility Guidelines) to ensure the platform is usable by individuals with disabilities.

4.2 System Requirements

- **Operating system:**
 - Support for mobile operating systems such as iOS (version 12 and above) and Android (version 10 and above).
 - Support for computer operating systems such as Windows (version 7 and above) and macOS (version 11.0 and above).
 - Support for popular web browsers such as Google Chrome, Mozilla Firefox, and Safari.
- **Network and connectivity:**
 - Support for internet connectivity through Wi-Fi or mobile data.
 - Compliance with network connectivity protocols like TCP/IP, HTTP, and HTTPS.
- **Memory:**
 - Sufficient memory required to install and run the application smoothly and efficiently.
 - Specific memory requirements depend on the scale and features of the application.
- **Peripherals:**
 - Support for input devices such as keyboards and mice for interacting with the application on computers.

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- Support for input devices such as touchscreens on mobile devices.
 - **Companion software:** May require installation of supporting software such as Adobe Acrobat Reader for reading PDF documents or image viewers for viewing and downloading content.

4.3 Performance Requirements

- **User load factors:**
 - Capable of handling a large number of concurrent users, ensuring smooth and uninterrupted user experience.
 - System should scale efficiently to accommodate increasing user demand without compromising performance.
- **Bandwidth and communication capacity:**
 - Sufficient bandwidth to support data transfer between users and the server.
 - Robust communication capacity to handle multiple user interactions, such as posting, commenting, and sharing content.
- **Throughput:**
 - High throughput to handle a large volume of uploads, downloads, and searches.
 - Users should be able to access and retrieve content quickly, ensuring minimal latency.
- **Search efficiency:**
 - Optimized search functionality to provide fast and accurate results.
 - Efficient search algorithms capable of handling a large database of content.
- **Accuracy and reliability:**
 - Ensure the accuracy and reliability of information, including spell-check and grammar correction.
 - Users should be able to trust the provided content and rely on it for their writing needs.
- **Response times:**
 - Quick response times for user interactions, such as page loading, content saving, and commenting.
 - Response times should remain consistent even under high user load conditions.
- **Scalability:**
 - Designed to scale horizontally or vertically to accommodate increasing user traffic and content growth.
 - System should handle future expansions and increased demands without sacrificing performance.
- **Security:**
 - Implement robust security measures to protect user data and prevent unauthorized

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- access.
 - Secure and reliable user authentication and authorization to ensure data privacy.
 - **Availability:**
 - High availability rate, minimizing downtime and ensuring continuous access for users.
 - Adequate backup and disaster recovery mechanisms to handle unexpected system failures.
 - **Mobile responsiveness:**
 - Optimized for mobile devices, providing a seamless and user-friendly experience on smartphones and tablets.
 - Interfaces should adapt to different screen sizes and resolutions, ensuring easy navigation and readability.
 - **Analytics and reporting:**
 - Provide comprehensive analytics and reporting capabilities to track user engagement and other relevant metrics.
 - Insights can help improve the platform, identify user preferences, and support business decisions.
 - **Integration and compatibility:**
 - Ability to integrate with other systems or APIs, such as social media platforms, to enhance user engagement and sharing capabilities.
 - Ensure compatibility with different browsers and operating systems for broad accessibility.

4.4 Environmental Requirements

- **User environment:**
 - Users should have access to a stable internet connection for features like cloud synchronization and content sharing.
 - Applications should be compatible with common operating systems including Windows, macOS, iOS, and Android.
- **Resource availability:**
 - Capable of running smoothly on standard consumer-grade hardware, including desktop computers, laptops, tablets, and smartphones.
 - Application should not require excessive system resources to operate, ensuring wide usability.
- **Error handling and recovery:**
 - Include robust error handling mechanisms to manage unexpected situations such as network failures or data corruption.

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- Provide informative error messages to guide users on how to resolve issues and recover from errors.
 - **Maintenance issues:**
 - Regular software updates and patches to address bugs, security vulnerabilities, and compatibility issues.
 - Built-in mechanisms for automated updates or notifications to inform users of available updates.
 - **Usage conditions:**
 - User interface designed for accessibility, ensuring usability for individuals with visual or motor impairments.
 - Intuitive and efficient user interactions, accommodating users with different levels of technological proficiency.