Component	Description	Objects	Requirement	Input	Output	Objective	SLA
Dashboard	The Dashboard serves as the central hub for users to manage and oversee various localization projects. It provides tools for tracking project progress, accessing detailed reports, and managing project settings, all through an interactive, web-based interface designed for ease of use and efficient navigation.	- **Web Framework**: Django - **Front-end**: React.js for dynamic content rendering - **API**: RESTful services for backend communication	FR1, FR2, FR3	User commands through graphical interface	Visual feedback on project status, downloadable reports, and updated project settings	To provide stakeholders with a comprehensive tool for monitoring and managing localization projects, thereby enhancing decision-making and project oversight.	99.9% system uptime, average response time of less than 2 seconds for loading data and updates.
User Management	This component is crucial for maintaining the security and integrity of the platform. It manages user authentication,	- **Library**: Django Authentication for secure login processes - **Database**: PostgreSQL to store user credentials and role data -	FR4, FR5	Login credentials and role modification requests	Confirmation of login status and role updates; access control adjustments as needed	To secure the platform by enforcing role-based access controls, thus protecting sensitive data and ensuring	99.99% uptime with a focus on immediate recovery from failures, ensuring continuous access control.

Component	Description	Objects	Requirement	Input	Output	Objective	SLA
	role assignments, and permission configurations, ensuring that each user accesses only the appropriate level of data and functionality according to their role within the organization.	**Security**: Implementation of OAuth for robust access control				operational integrity.	
Onboarding and Initialization	Handles the initial setup processes for new websites seeking localization services. This includes registering website details, scraping the initial content, and preparing the system for ongoing localization activities. The module is	- **Framework**: Django for server-side operations - **Scraper**: Beautiful Soup for effective HTML content scraping - **API**: Internal APIs for managing project setup and data ingestion	FR6, FR7	Website URLs, specific configurations for scraping	Confirmation messages indicating successful setup, error logs for troubleshooting	To streamline the onboarding of new localization projects, ensuring a quick start and reducing initial barriers for users.	98% uptime with a recovery time objective (RTO) of less than 5 minutes for setup processes.

Component	Description	Objects	Requirement	Input	Output	Objective	SLA
	designed to facilitate a smooth and automated setup process, reducing manual effort and potential errors.						
String Detection and Extraction	This component is designed to automate the detection and extraction of translatable text from websites. It utilizes sophisticated pattern recognition algorithms to identify text elements that require translation and replaces them with localization placeholders. This process is essential for preparing the text for the	- **Library**: Regex for pattern recognition - **Database**: MongoDB for storing and retrieving string keys and text - **Data Handling**: JSON for organizing and transferring data between processes	FR8, FR9	HTML content of registered websites	Localizable text replaced with placeholders and associated keys stored in a database	To automate the preparation of website content for translation, enhancing efficiency and accuracy in the localization process.	99% uptime, with a focus on maintaining over 95% accuracy in text detection and extraction.

Component	Description	Objects	Requirement	Input	Output	Objective	SLA
	translation workflow.						
Workflow Management	Manages the core translation workflow, including the synchronization of translated content updates and interaction with the Translation Management System (TMS). This module ensures that changes in content are accurately reflected in the localized versions and that all translations are up to date.	- **API**: Custom API for communication with TMS - **Scheduler**: Cron jobs for monitoring content updates - **Data Sync**: Tools for synchronizing content across systems	FR10, FR11	Updated content files, requests for translation	Synchronized content files, updated translations	To manage and streamline the translation process, ensuring timely updates and maintaining consistency across localized versions.	99% uptime with transaction response times not exceeding 3 seconds for synchronization operations.
Quality Control	Dedicated to maintaining the high standards of translation quality, this module involves	- **Tool**: Django Admin customized for review processes - **Database**: PostgreSQL for storing version	FR12, FR13	Translations awaiting approval, review inputs	Approved translations, records of review sessions	To ensure that all translations meet the set quality standards and are appropriate	99.8% uptime with less than 0.5% error rates in the handling and

Component	Description	Objects	Requirement	Input	Output	Objective	SLA
	various stakeholders in the review and approval process of translated content. It employs a systematic approach to version control and audit trails, ensuring that all modifications are tracked and reversible.	histories and review records - **Permissions**: Django permissions framework for managing access to review functions				for their respective markets before being published.	storage of review data.
API Gateway	Serves as the intermediary for all external API communications, particularly between the AutoLocalize platform and external TMS. It ensures secure data exchange by implementing robust security protocols and managing the flow of	- **Technology**: NGINX for managing API requests - **Security**: OAuth and HTTPS for secure communications - **Management**: Rate limiting and logging for API usage monitoring	FR14, FR15	API calls to and from the TMS	Secure and validated API responses from the TMS	To facilitate secure, efficient, and reliable API communications between internal and external systems, enhancing integration capabilities.	99.99% uptime, with API response times kept below 1 second for all transactions.

Component	Description	Objects	Requirement	Input	Output	Objective	SLA
	information to prevent unauthorized access or data breaches.						
TMS Integration	Manages the direct interactions with the Translation Management System, which includes sending texts for translation and receiving the translated outputs. This component is crucial for the seamless integration of external translation services into the localization workflow.	- **API**: External TMS API for seamless integration - **Data Format**: JSON for efficient data handling - **Networking**: Secure network configurations for reliable data transmission	FR16, FR17	Source texts needing translation	Translated texts ready for integration into websites	To efficiently manage the translation lifecycle by interfacing directly with external translation services, ensuring timely and accurate translations.	99% uptime with average response times of less than 4 seconds for sending and receiving data.
Database Management	Responsible for all data storage and management	- **Database System**: PostgreSQL for robust data handling - **ORM**: Django ORM for	FR18, FR19	Data queries, data storage requests	Query results, confirmation of data storage	To provide a comprehensive and reliable data	99.95% uptime, with a focus on maintaining

Component	Description	Objects	Requirement	Input	Output	Objective	SLA
	aspects of the platform, this component ensures that user data, project metadata, and translation memories are securely stored, easily accessible, and reliably managed within the system.	seamless data integration and manipulation - **Backup**: Automated backup systems for data redundancy				management solution that supports all aspects of the localization platform.	data integrity and providing continuous data access.
File Storage	Manages the storage and retrieval of critical files related to website content and translations. This component is designed to handle large volumes of data efficiently, ensuring that files are available and up-to-date for the	- **Storage Solution**: Amazon S3 for scalable storage - **File Management**: Django for handling file operations - **Security**: Encryption and secure access controls for data protection	FR20, FR21	Files to be stored, retrieval requests	Stored files, retrieval confirmations	To efficiently manage the storage and retrieval of website and translation files, ensuring data is secure and readily available for localization tasks.	99.9% uptime, with a focus on minimizing data loss and ensuring quick retrieval times.

Component	Description	Objects	Requirement	Input	Output	Objective	SLA
	localization process.						