

Project: PetMatters

Group: Marvels

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# Software Requirements Specification

## 1. Introduction

This Software Requirements Specification (SRS) document outlines the requirements for developing an AI-assisted tool designed to help animal shelters create appealing pet descriptions. The tool aims to assist shelter staff and volunteers in generating or enhancing pet descriptions quickly and efficiently, with the option to translate them into Dutch when necessary. This document serves as a guide for all stakeholders involved in the project, including developers, project managers, testers, and end-users.

### 1.1 Purpose

The purpose of this document is to define the functional and non-functional requirements for the development of a user-friendly tool that addresses the challenges faced by animal shelters in crafting appealing pet descriptions. The tool will utilize AI systems to generate new descriptions, enhance existing ones, and provide translation services from English to Dutch, ultimately improving adoption rates.

### 1.2 Intended Audience

- **Developers:** To understand what features need to be implemented.
- **Project Managers:** To oversee the project's progress and ensure requirements are met.
- **Testers:** To design test cases that validate the system's functionality.
- **Shelter Staff and Volunteers:** As end-users, to provide feedback and ensure the tool meets their needs.
- **AI Specialists:** To focus on the AI components and models required for the system.

## 1.3 Additional Information

This document is the foundation for the project's development phase. Any changes to the requirements should be documented and communicated to all stakeholders. The project aims to comply with relevant data protection regulations and ethical guidelines in AI.

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## 2. User Requirements

- **UR1:** The system shall allow users to generate pet descriptions using a user-friendly form.
  - **UR2:** The system shall enable users to enhance existing pet descriptions to increase their appeal.
  - **UR3:** The system shall provide an option to translate pet descriptions from English to Dutch.
  - **UR4:** The system shall be easy to navigate, requiring minimal training for staff and volunteers.
  - **UR5:** The system shall reduce the time taken to create or enhance pet descriptions by at least 50%.
  - **UR6:** The system shall achieve a user satisfaction score of 85% or higher.
  - **UR7:** The system shall ensure that 90% of users can complete key tasks without assistance after watching the tutorial video.
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## 3. System Requirements

### 3.1 Functional Requirements

ID	Feature/Function	Description	Priority	Action/Results
FR1	Generate Pet Descriptions	Users can create descriptions via a form	High	Model generates descriptions based on user inputs
FR2	Enhance Existing Descriptions	Users can improve current descriptions by clicking on Improve	High	Model provides enhanced versions of existing descriptions

FR3	Translate Descriptions	Users can translate descriptions to Dutch by clicking on Translate	High	Model outputs translated text maintaining the original meaning
FR4	Writing front-end calls and writing API functions	Users will be able to use the website functionalities	High	Responsive and fast website for users on load and click
FR5	Designing an easy-to-use website for description creation, Improvement and translation	Intuitive and easy-to-use interface to create, improve and translate descriptions	High	Users navigate and use the system with minimal guidance
FR6	User Authentication	Secure login for authorized users	High	Users access the system using credentials
FR7	Feedback Mechanism	Collect user feedback on system performance	Low	Users submit feedback directly through the system
FR8	Save and Edit Descriptions	Users can save drafts and edit descriptions	Medium	System allows for saving and editing functionality

### 3.2 Non-Functional Requirements

ID	Requirement	Description	Related FRs	Constraints/Considerations
NFR1	Performance	The system displays responses within 2 seconds for any operation	FR1-FR3	Requires efficient processing and optimization
NFR2	Usability	90% task completion without assistance after watching the tutorial	FR4	Adherence to UI/UX best practices
NFR3	Security	Protect user data and ensure secure authentication	FR5	Compliance with data protection regulations (e.g., GDPR)

NFR4	Scalability	Support multiple concurrent users without performance loss	All	Scalable architecture to handle load
NFR5	Maintainability	Easy to update and maintain	All	Modular code and comprehensive documentation
NFR6	Compatibility	Accessible on major browsers (Chrome, Firefox, Safari, Edge)	FR4	Cross-browser compatibility testing
NFR7	Ethical AI Practices	AI outputs are appropriate and unbiased	FR1-FR3	Regular audits of AI outputs for compliance
NFR8	Localization	Support for English and Dutch languages	FR3	Proper language handling and encoding

## 4. AI Specific Requirements

- **AIR1: Description Generation AI**
  - Must generate pet descriptions with an 85% user approval rating.
  - It should reduce the time to create descriptions by 50% compared to manual writing.
- **AIR2: Description Enhancement AI**
  - Existing descriptions must be enhanced to increase appeal by 30%, as measured by engagement metrics.
  - Should receive positive feedback from 80% of users.
- **AIR3: Translation AI**
  - Must translate descriptions from English to Dutch with 90% accuracy, verified by native speakers.
  - Translations should maintain the original tone and appeal by 60% based on users' ratings.
- **AIR4: Integration and Performance**
  - AI components must respond to all calls from the front side and return appropriate responses.
  - Responses from AI functionalities should occur within 2 seconds.
- **AIR5: Ethical Considerations**
  - AI must avoid biased or inappropriate language.
  - Implement mechanisms to monitor and correct AI outputs.

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