

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.
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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     | System generates descriptions based on user inputs          |
| FR2 | Enhance Existing Descriptions | Users can improve current descriptions    | High     | System provides enhanced versions of existing descriptions  |
| FR3 | Translate Descriptions        | Users can translate descriptions to Dutch | High     | System outputs translated text maintaining original meaning |

|     |                            |   |        |   |
|-----|----------------------------|---|--------|---|
| FR4 | User-Friendly Interface    | Intuitive and easy-to-use interface         | High   | Users navigate and use the system with minimal guidance |
| FR5 | User Authentication        | Secure login for authorized users           | Medium | Users access the system using credentials               |
| FR6 | Feedback Mechanism         | Collect user feedback on system performance | Low    | Users submit feedback directly through the system       |
| FR7 | 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     | System responds within 2 seconds for any operation                | FR1-FR 3    | Requires efficient processing and optimization           |
| NFR2 | Usability       | Minimal training required; 90% task completion without assistance | 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.
  - Should reduce the time to create descriptions by 50% compared to manual writing.
- **AIR2: Description Enhancement AI**
  - Must enhance existing descriptions to increase appeal by 30%, 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.
- **AIR4: Integration and Performance**
  - AI components must integrate seamlessly with the system.
  - 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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