Software Requirements Specification (SRS)

Pawdot - Pet Adoption Platform

1. Introduction

1.1 Purpose

Pawdot is a web-based pet adoption platform that connects pet seekers with shelters and pet owners. The platform aims to facilitate the adoption process by providing a seamless user experience for browsing, selecting, and adopting pets.

1.2 Document Conventions

- The document follows IEEE SRS standards.
- Bold text is used for headings.
- Italic text is used for emphasis.

1.3 Intended Audience and Reading Suggestions

This document is intended for:

- Developers
- Designers
- Product Owners
- Testers
- Stakeholders

1.4 Product Scope

Pawdot aims to:

- Provide an intuitive platform for pet seekers.
- Enable pet shelters and owners to list pets for adoption.
- Facilitate communication between adopters and pet providers.
- Offer a dashboard for tracking adoption status.

1.5 References

- IEEE SRS standards
- Web accessibility guidelines

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2. Overall Description

2.1 Product Perspective

Pawdot is a standalone web application that integrates with external APIs for location-based pet searches and authentication services.

2.2 Product Functions

- User Authentication: Sign up, login, and profile management.
- Pet Listings: Browse, search, and filter pets available for adoption.
- Adoption Requests: Users can request to adopt pets.
- Communication: Chat and message system between users and pet providers.
- Admin Dashboard: For managing pet listings and adoption requests.

2.3 User Characteristics

- Pet Seekers: Users looking to adopt pets.
- Pet Providers: Shelters and pet owners listing pets.
- Administrators: Manage platform functionality and user activity.

2.4 Constraints

- The platform must be mobile-friendly.
- Secure authentication using JWT.
- Compliance with GDPR and data protection regulations.

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3. Specific Requirements

3.1 Functional Requirements

Customer's Requirements

- Login
    - To log in to the system, users must provide:
        - Email Address: Must be a valid email address.
        - Password: Must have at least 8 characters; the text field must be in password mode.
- Create Account
    - Customers can register on the platform.
    - Required information for registration:
        - Email Address: Must be valid.
        - Password: Must have at least 8 characters, in password mode.
        - Contact Details:
            - Name
            - Current Location

        - **Mobile**
        - **Mailing Address**
    - **Upon successful registration, this information will be stored in the database.**
- **Manage Profile**
    - **Customers can update their profile information when required.**
    - **All fields except the email address will be updatable.**
    - **Updated information will be saved to the database.**
- **Search for Pets**
    - **Customers can search for pets using filters like breed, age, size, and location.**
- **Adoption Requests**
    - **Users should be able to send adoption requests.**
- **Notifications and Updates**
    - **Customers will receive notifications for adoption request status and new pet listings.**
    - **Notifications will be sent via email or app notifications.**
- **Feedback and Suggestions**
    - **Customers can provide feedback on the adoption experience and suggest platform improvements.**

Admin Requirements

- **Manage Listings**
    - **Admins can approve, decline, or remove pet listings.**
- **Manage Adoption Requests**
    - **Admins can approve or decline adoption requests.**
- **Monitor User Activity**
    - **Admins can track user interactions and reports.**

3.2 External Interface Requirements

- **Software Interfaces**
    - **Integration with external pet databases and mapping services.**
    - **Compatibility with major browsers and mobile platforms.**
- **Communication Interfaces**
    - **The system will use email and push notifications for updates.**
    - **HTTP and HTTPS protocols will ensure secure data transmission.**

4. Non-Functional Requirements

4.1 Security and Privacy Requirements

- **Authentication**
    - **The platform will require secure authentication for all users via unique credentials.**
    - **Multi-factor authentication (MFA) will be implemented for enhanced security.**
- **Authorization**
    - **Role-based access control will ensure users only access permitted functionalities.**
    - **Sensitive data will be protected from unauthorized access through encryption.**
- **Privacy**
    - **User data will be handled in compliance with GDPR and other data protection laws.**
    - **No personal information will be shared without explicit user consent.**

4.2 Performance Requirements

- **The platform will handle a minimum of 10,000 concurrent users without performance degradation.**
- **Response time for user actions will not exceed 2 seconds under normal load.**

4.3 Usability Requirements

- **The platform will have an intuitive interface with easy navigation for all user types.**
- **Accessibility features will be implemented to support users with disabilities (e.g., screen readers, keyboard navigation).**

4.4 Scalability Requirements

- **The system will be designed to scale horizontally to accommodate future growth in users and features.**
- **New modules or features can be integrated without disrupting existing functionality.**

4.5 Availability Requirements

- **The platform will maintain 99.9% uptime, excluding scheduled maintenance.**
- **Automatic failover mechanisms will ensure minimal disruption in case of server failures.**

4.6 Compatibility Requirements

- **The platform will support major browsers such as Chrome, Firefox, Safari, and Edge.**
- **Mobile responsiveness will be ensured for devices of various screen sizes.**

4.7 Maintenance Requirements

- **Regular software updates will be deployed to address security vulnerabilities and improve functionality.**

- **A dedicated support team will handle bug reports and user issues within a maximum of 24 hours.**

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5. Appendices

- **Glossary of terms**
- **API documentation**
- **Compliance guidelines**