

# Software Requirements Specification

## Document V1

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## 1. Product General Description (All Group members)

Paw Pal is a web-based application that connects pet owners with local pet care providers. The system allows customers to find and book pet sitters based on their needs, while providers can list their services and manage bookings. A system administrator ensures platform integrity by moderating content and managing user access.

## 2. Product Features (All Group members)

The Paw Pal application is designed to help pet owners make connections with pet care providers in order to take care of pets whenever necessary. Some of the key features of this application include:

**Profile Creation:** Pet owners and providers can create detailed profiles, including pet care preferences, experience levels, and service offerings. Profiles enable a customized experience tailored to individual pet needs. In the profile creation users can apply to become a pet provider through application.

**Service Discover and Booking:** Pet owners can browse a list of their desired available services like grooming, walking, pet sitting, etc. A booking system will allow users to schedule and manage appointments with the service providers. User will use a calendar real-time based availability in order for clarity when booking

**Review and Rating System:** Pet owners can leave detailed reviews and ratings for service providers helping future users make decisions. Providers also can respond to pet owners' feedback.

**Service Management for Providers:** Pet care providers can create, edit, and manage the service they offer. This includes parts of the service such as pricing, availability, and general service details. The provider would be able to see customer interactions, reviews, and service performance via a dashboard.

**Administrative Moderation:** Ensures a secure platform by moderating service listings, reviews, and user access. System administrators will be able to approve or deny providers applications.

**Usage Analytics and Insight :** Providers can access Pet owner interaction data, such as profile visits, bookings, and reviews. System administrators will monitor system usage trends to enhance the overall user experience.

### 3. Functional Requirements (Chirstian Cureton)

- FR0: The app allow all users (pet owners, providers, and administrators) to create a profile
- FR1: The app will allow all users to modify their profile information
- FR2: The app will allow pet owners to browse and filter the available services to their need
- FR3: The app will allow pet owners to view provider details such as their experience, pricing, service, availability
- FR4: The app will allow pet owners to book services with providers using a real-time calendar system
- FR5: The app will allow pet owners to view and manage their scheduled appointments, including options like canceling or rescheduling if necessary
- FR6: The app will allow pet owners to leave reviews and ratings for services the pet provider completed
- FR7: The app will allow service providers to create and edit listings for their pet care service, including descriptions, availability, and pricing.
- FR8: The app will allow service providers to manage their bookings, which means accepting, rejecting, or just modifying requested appointments
- FR9: The app will allow service providers to view customer statistics, like bookings, reviews, and profile visits
- FR10: The app will allow system administrators to approve or deny provider applications before or after an account has been created
- FR11: The app will allow system administrators to moderate listings by adding, removing, or editing service.
- FR12: The app will allow system administrators to monitor and remove reviews if necessary
- FR13: The app will allow system administrators to manage user access, including permissions such as suspending or banning accounts when necessary
- FR14: The app will allow system administrators to track overall usage, like most popular services, active users etc.

-FR15: The app will require users to log in with a secure email and password

#### 4. Non-Functional Requirements (Elijah Alford)

- NFR0: The app should have a user-friendly interface for pet owners, providers, and administrators.

- NFR1: The app should ensure fast and smooth profile updates and information saves with response time under 2 seconds.

- NFR2: The browse and filter system should return results within 2 seconds for good performance.

- NFR3: providers profile details should be synchronized and accurate

- NFR4: The app should process and confirm booked services within 5 seconds also updating providers schedules

- NFR5: Appointments system should update and synchronize immediately without scheduling conflicts

- NFR6: The app should store reviews and ratings submitted within 2 seconds and ensure data reliability.

- NFR7: The app should ensure that service providers created and edited listing will be updated with 2 seconds responds time after submission

- NFR8: The app should process bookings management actions within 2 seconds to maintain reliability

- NFR9: Pet owner's statistics should be displayed in a well-organized, visually clear dashboard that loads in under 2 seconds for optimal usability.

- NFR10: Provider application approvals or denials should be logged and trackable for audit purposes, ensuring transparency and compliance with platform policies.

- NFR11: Moderation actions on adding, removing, editing services should be immediately reflected in search results and service listings to maintain accuracy.

- NFR12: The system should flag, and queue reported reviews for administrator action within 5 minutes of submitting a report.

- NFR13: User access management actions ban, and permission changes should be enforced within 30 seconds to prevent unauthorized activity.

- NFR14: Usage tracking data should be updated in real time, with analytics reports available within 10 seconds of request submission

-NFR15: The app must enforce secure user authentication using email and password credentials

## 5. Scenarios

### a). Customer (Elijah Alford)

User - Pet owner

- **Create/Modify Customer Profile**

- Initial assumptions: the user has access to Paw Pal, is logged in, and on the pet owner dashboard
- Normal: The user navigates to the sign-up page on paw pal app.
  - Selects Register as pet owner and complete the registration form
    - Requires name, email, phone number, password
    - Profile setup: pet details (name, breed type, special needs), profile picture
- The user submits the form and receives a verification code to phone or email address
- After confirmation they are redirected to their customer dashboard, now can edit and update customer profile
- Alternative path
  - Expired verification code
- Exceptions
  - User (Pet owner) profile is successfully created or updated and are allowed to access services

- **Browse Available Services**

- Initial assumptions: The user wants to explore pet care services
- Normal:
  - User logs in and navigates to find services on dashboard
  - Users browse a list of service providers, using filters
    - Filter: Service type (pet sitting, dog walking, and grooming), location, price range, availability

- User selects a service and views service provider profiles
  - Pricing, available dates, reviews/rating, and profile information
- User can contact the service provider in app messaging
- Alternative paths
  - No service provider's match
  - Providers are booked full
  - Invalid search
- Exceptions
  - User successfully views pet care services and can proceed to booking

## **Leave Reviews**

- Initial Assumption: user has completed a service with a service provider or booking and wants to leave a review
- Normal
  - User logs in and goes to my bookings
  - User has completed booking / service and clicks leave a review
  - System prompts the user to
    - Rate service (1-5 stars)
    - Write a review of experience
  - User submits the review and it appears on the provider's profile
- Alternative paths
  - Typed review exceeds word counts
  - System error prevents submission
- Exceptions
  - After review/ rating is submitted the providers profile updates with the new rating and review visible on provider profile.

## **Booking**

- Initial Assumption: The user has selected a pet care service and wants to schedule an appointment
- Normal
  - User (Pet owner) logs in and navigates to find service
  - Select a provider's service and click on Book Now
  - System displays the providers availability calendar
  - The user selects
    - Date and time

- Any special needs
  - System shows the pricing breakdown, and the user confirms the booking
  - Confirmation email or text
- Alternatives paths
  - Selecting an unavailable date/time slot
  - Payment failure
  - Booking cancel after confirmation
- Exception
  - The appointment is successfully booked, and both customer and provider receive notification

## b). Providers (Christian Cureton)

User – John Doe (Pet Sitter)

- **Create/Modify Provider Profile**
  - **Initial Assumption:** The user has access to Paw Pal, is logged in, and on the pet provider dashboard
  - **Normal:** The user will navigate to the “Profile” section of the dashboard, where they’ll be able to enter personal details, such as contact, location, pet care experience, profile pictures, etc.
    - If the user is creating a profile for the first time, the user must fill required fields and then submits the pet provider application
    - If the user is modifying an already existing profile, the user updates the necessary fields and then saves the changes made.
  - **What Can Go Wrong:**
    - The user could forget to fill out a particular required field, which would prevent the submissions. An invalid message will appear and highlight the field that was not filled out
    - The user’s internet could go out, which would cause unsaved changes to get lost. A warning will show the user before leaving the page.
  - **Other Activities:** The user can preview the profile before saving the changed they made
  - **System State on Completion:** The updated profile is saved, and the changes are displayed on the provider’s profile.
- **Create Service**
  - **Initial Assumption:** The user has a provider profile and is logged in on the dashboard

- **Normal:** The user navigates to the “Services” section and selections “Add a New Service”
  - They enter service details such as the type of pet care they offer, availability, pricing, and any other additional information necessary.
  - The user submits the form and then the new service is added to their profile
- **What Can Go Wrong:**
  - The user might enter incorrect or incomplete information in the form which would prevent submission. The system will display error messages and highlight invalid fields.
  - The user might delete a service by mistake. A pop-up will appear to make sure the user wants to delete the service
- **Other Activities:** The user can edit or deactivate preexisting services whenever necessary.
- **System State on Completion:** The new service appears in the provider’s listing, which is visible for all.
- **Book with Customers:**
  - **Initial Assumption:** The user has their listed services and customers have made their booking requests
  - **Normal:** The provider navigates to the “Bookings” section of their dashboard, they will see a list of their confirmed, pending, and past bookings with customers
    - For the pending request, the provider can accept or decline a booking
    - If a booking is accepted, the customer will move to the “confirmed” section.
    - After completing the service, the booking will be marked as completed and be moved to the “past bookings” section
  - **What Can Go Wrong:**
    - The provider might overlook a booking request. Notifications will be sent to the provider in email form and alerts in the app
    - The customer might have to cancel at the last minute. The cancellation policy set up by the provider will dictate. The refund rules.
  - **Other Activities:** The provider will be able to communicate with the pet owner through a messaging system within the app
  - **System State on Completion:** The booking status is updated, and the provider gets a record of their past completed services
- **View Customer Statistics**



- **Initial Assumption:** The user provided their pet care service and has received customer feedback
- **Normal:** The user navigates to the “Reviews and Ratings” section on their provider dashboard
  - They can view their ratings and reviews of the service they just performed
  - The user can respond to the reviews and address any comments made by the customer
- **What Can Go Wrong:**
  - The user might want to take down a review. A “Report” button will allow the user to flag inappropriate reviews, which will be considered by the system administrator
- **Other Activities:** The user can filter reviews by date or rating
- **System State on Completion:** **The provider can read customer reviews and all responses to reviews are seen.**

c). System Administrator (Kaz Chhan-Kong)

User – System Administrator

- **1. Manage User Access**

- **Initial Assumption:**  
The system administrator is logged into the app and on the system dashboard.
- **Normal:**
  - The administrator navigates to the **User Management** section.
  - The administrator can view the list of pending applications for new users.
  - The administrator selects an application to review and can see the applicant’s details.
  - If the application meets the required criteria, the administrator approves it; otherwise, they deny the request.
  - The administrator can also view and manage the list of active users.
- **What Can Go Wrong:**
  - If an administrator denies an application by mistake, they may need to manually contact the applicant to reapply.
  - If the system fails to load user details, a message prompts the admin to refresh or try again later.
- **Other Activities:**

- The administrator can filter and sort applications by date submitted or approval status.
  - The administrator can send a notification to applicants regarding the status of their application.
- **System State on Completion:**
  - The approved user can access the app, while denied users receive a notification explaining their status.
  - The active user list updates accordingly.
- **Moderate Services**
  - **Initial Assumption:**

The administrator is logged into the system and has access to service provider accounts.
  - **Normal:**
    - The administrator navigates to the Service Moderation section.
    - The administrator selects a provider's profile to review.
    - The administrator can view the provider's calendar and available services.
    - If necessary, the administrator can suspend or flag a provider's service due to a policy violation.
    - The administrator can also review reports or flagged services and take appropriate action.
  - **What Can Go Wrong:**
    - A provider might have mistakenly marked dates as unavailable, leading to incorrect bookings.
    - If the administrator mistakenly suspends a provider's services, they may need to manually restore access.
  - **Other Activities:**
    - Administrators can send notifications to providers regarding any changes to their services.
    - They can filter services by provider rating, number of bookings, or flagged status.
  - **System State on Completion:**
    - Updated provider service statuses are reflected in the system.
    - Suspended providers are notified, and flagged services are under review.
- **Moderate Reviews**

- **Initial Assumption:**  
The administrator is logged in and has access to customer reviews.
- **Normal:**
  - The administrator navigates to the **Reviews Moderation** section.
  - The administrator selects a specific provider's reviews and ratings.
  - If a review is flagged as inappropriate, the administrator reviews the report.
  - If necessary, the administrator removes the review or confirms it as valid.
  - The administrator can also filter, and sort reviews based on date, rating, or flags.
- **What Can Go Wrong:**
  - A false flagging issue could result in valid reviews being removed unfairly.
  - A user may attempt to abuse the review system by repeatedly flagging legitimate reviews.
  - If the system fails to load reviews properly, the administrator may need to refresh the page.
- **Other Activities:**
  - Administrators can send notifications to providers when a review is removed.
  - They can approve or reject review flagging requests.
- **System State on Completion:**
  - The provider's reviews are updated based on administrative decisions.
  - Removed or flagged reviews are no longer visible in the system.
- **View Usage Statistics**
  - **Initial Assumption:**  
The administrator is logged into the system and has access to analytics.
  - **Normal:**
    - The administrator navigates to the **Usage Statistics** section.
    - The administrator can view real-time data on active users, popular services, booking trends, and system performance.
    - The administrator can generate and export reports on engagement and usage trends.
    - The administrator can apply filters to analyze specific time frames or service categories.
  - **What Can Go Wrong:**

- A system error may cause statistics to load incorrectly or not display at all.
- A sudden drop in engagement might indicate a bug or issue that needs further investigation.
- If reports fail to generate, the administrator may need to retry with adjusted parameters.
- **Other Activities:**
  - Administrators can compare data over different time periods.
  - They can set alerts for unusual spikes or drops in system activity.
- **System State on Completion:**
  - The administrator successfully views and analyzes app performance.
  - Reports are generated and available for future reference.