## Pet Search and Filter

* **Input**: User search criteria (breed, species, size, age, location)
* **Activation**: User clicks on search or filter buttons
* **Action**: System queries database for pets matching selected criteria
* **Output**: Filtered list of pets meeting the specified criteria

## Pet Favorites/Saved Pets

* **Input:** User selection of a pet to save
* **Activation:** User clicks "Save" or heart icon on a pet profile
* **Action:** System stores the selected pet in user's favorites list
* **Output:** Confirmation message and pet added to user's saved list

**Featured Pets Display**

* **Input**: System-identified pets (those waiting longest or needing urgent adoption)
* **Activation**: User loads the homepage
* **Action**: System retrieves and prioritizes featured pets from database
* **Output**: Carousel or highlighted section showing featured pets on homepage

**Location-Based Pet Search**

* **Input**: User's location (entered manually or detected) and desired search radius
* **Activation**: User enables location search and sets distance preference
* **Action**: System calculates distances and filters available pets
* **Output**: List of pets sorted by proximity to user's location

## Online Adoption Application

* **Input**: User's personal information, living situation, pet ownership history
* **Activation**: User clicks "Apply for Adoption" button on pet profile
* **Action**: System validates and stores application information
* **Output**: Confirmation message, application ID, and next steps information

## Adoption Application Processing (for shelter staff)

* **Input**: Staff review notes and application status update
* **Activation**: Staff selects application to review
* **Action**: System updates application status and notifies applicant
* **Output**: Updated application status and notification to applicant

## Application Updates

* **Input:** Admin publishes an update.
* **Activation:** Admin submits the update.
* **Action:** System validates and publishes updates, and notifies users of the new updates.
* **Output:** In-app notification of updates, and option to view details of the updates.

## Meet-and-Greet Appointment Scheduling

* **Input**: User's preferred dates/times for appointment
* **Activation**: User selects "Schedule Meet-and-Greet" option
* **Action**: System checks availability and reserves time slot
* **Output**: Confirmation of appointment with details and preparation instructions

## Shelter Contact System

* **Input**: User's message and contact information
* **Activation**: User clicks "Contact Shelter" button
* **Action**: System routes message to appropriate shelter staff
* **Output**: Confirmation message and estimated response time

## User Registration and Account Management

* **Input**: User's email, password, and optional profile information
* **Activation**: User selects "Create Account" or "Sign In"
* **Action**: System validates credentials and manages user session
* **Output**: Authenticated user session and access to account features

**Pet Profiles (user)**

* **Input:** User views pet profiles.
* **Activation:** User selects a pet profile.
* **Action:** System retrieves pet profiles from the database and displays profile details.
* **Output:** Detailed pet profiles with images, descriptions, and adoption status, and option to share profiles.

**Pet Profile Management (for shelter staff)**

* **Input**: Pet details, photos, health information, behavioral traits
* **Activation**: Staff selects "Add New Pet" or "Edit Pet Profile"
* **Action**: System stores or updates pet information in database
* **Output**: Published or updated pet profile visible to potential adopters

## Preference-Based Notifications

* **Input**: User's pet preferences (saved during account creation or later)
* **Activation**: New pet matching preferences is added to system
* **Action**: System compares new pets to user preferences
* **Output**: Email or push notification alerting user to new matching pets

## Appointment Reminders

* **Input**: Upcoming appointment data from system
* **Activation**: Automated trigger 24 hours before scheduled appointment
* **Action**: System generates and sends reminder message
* **Output**: Email or text reminder with appointment details

## Helpful Tips (e.g., How to Introduce Kids to Pets)

* **Input:** User selects a tip category.
* **Activation:** User request for tips.
* **Action:** System retrieves relevant tips from the database and displays tips to the user.
* **Output:** List of helpful tips with detailed information, and option to save or share tips.

## Share Options

* **Input:** User clicks the share button.
* **Activation:** User interaction with the share button.
* **Action:** System generates shareable link or content and provides sharing options (e.g., social media, email).
* **Output:** Shareable link or content ready for user, and confirmation of successful sharing.