Product Design

Team <Sunrise Inc>
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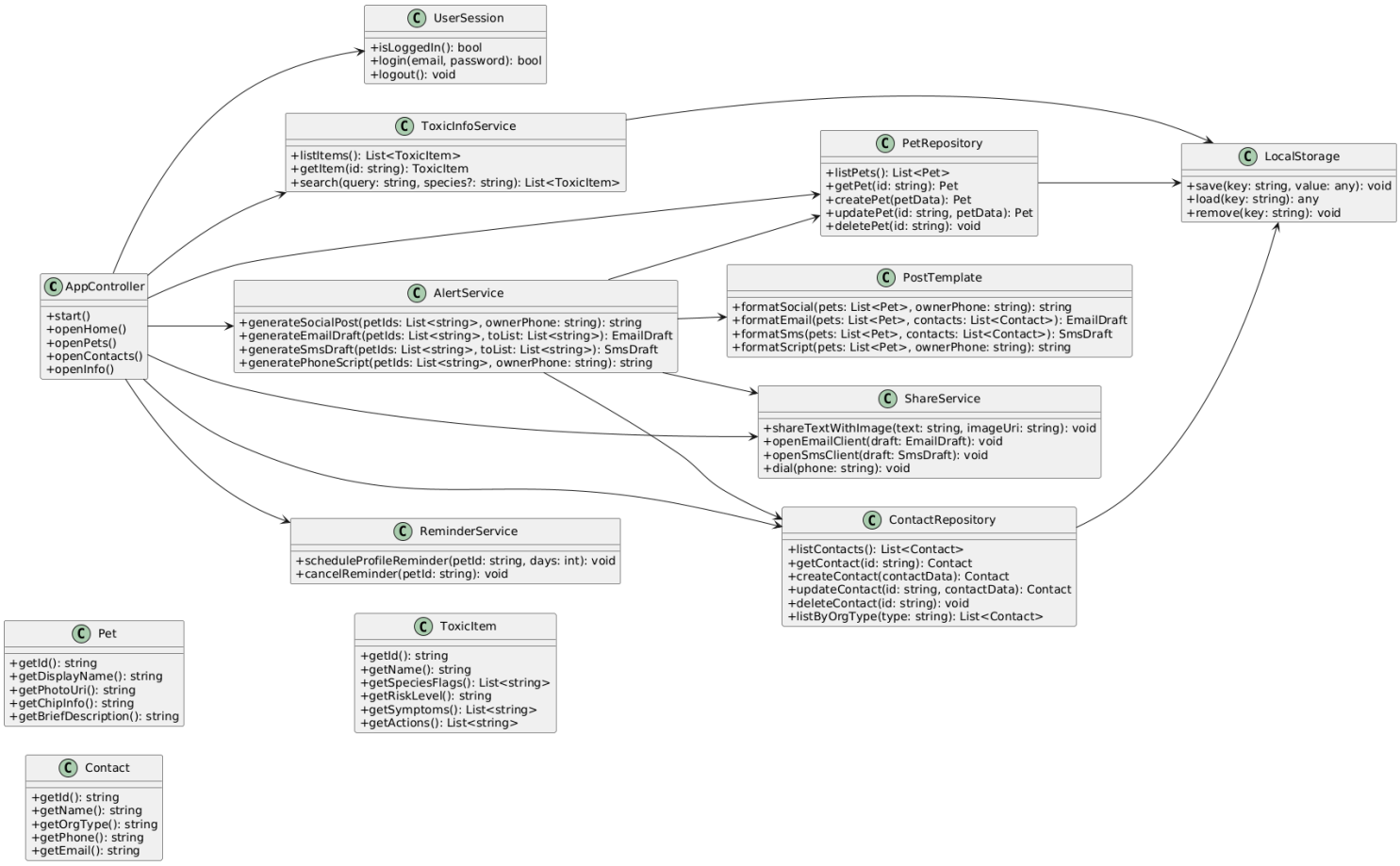
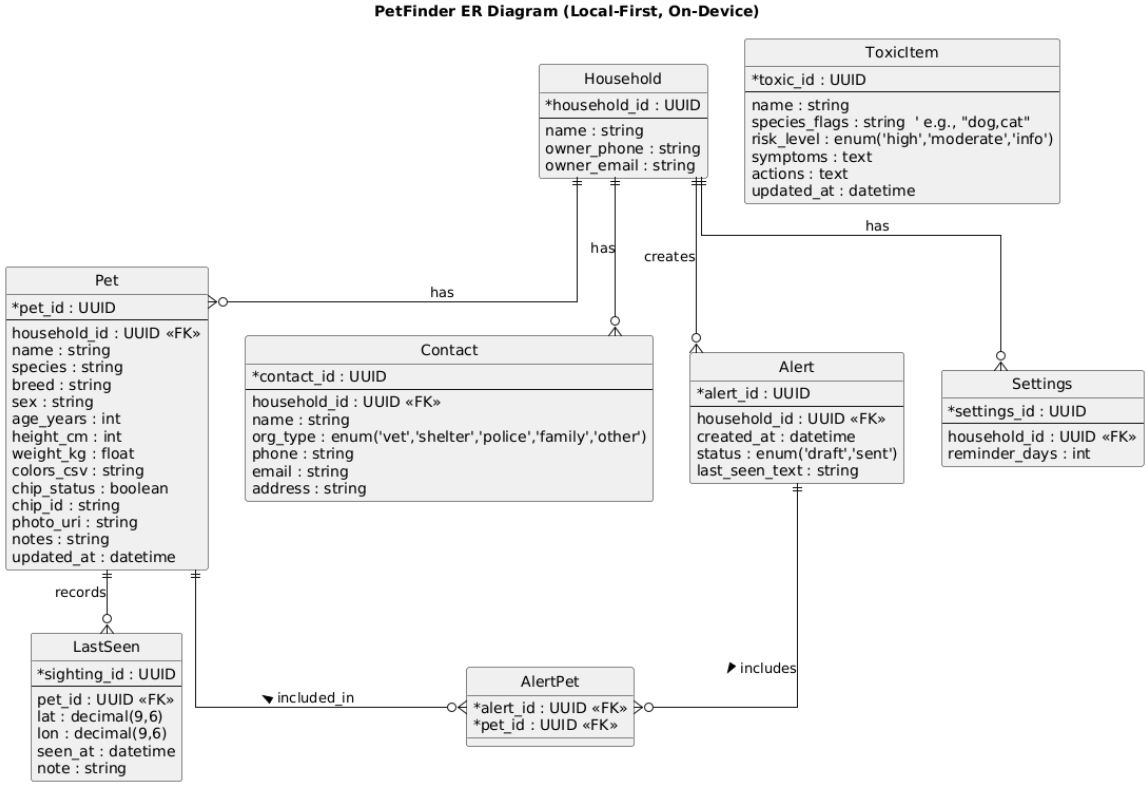
Revision Number	*Revision Date*	*Summary of Changes*	*Author(s)*
0.1	10/08/2025	Initial design document information added	Anjali Fernando, Tanvi Biswal, Kimberley Juarez, Ojaswi Subedi, Bibek Pandey
0.2	11/08/2025	Screenshot added from the actual implementation in android emulator. New design summary and design rationale added.	Anjali Fernando, Tanvi Biswal, Kimberley Juarez, Ojaswi Subedi, Bibek Pandey

Class Diagram(s)



ER Diagram(s)



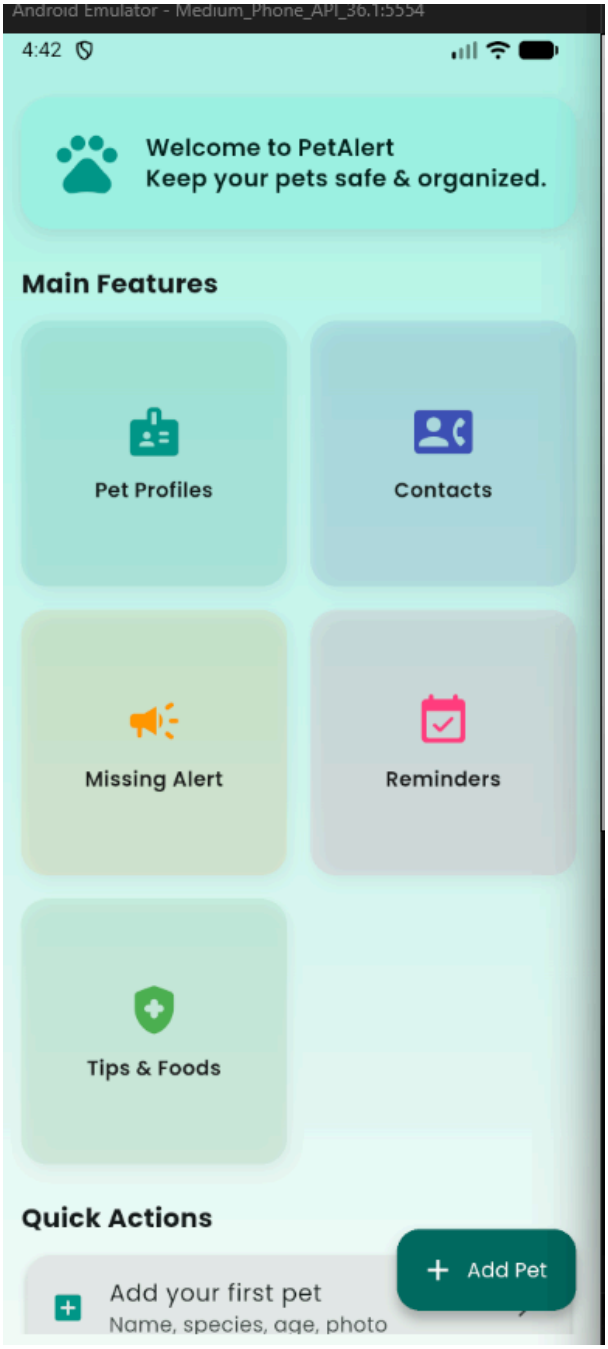
Information Architecture Diagram

PetAlert is not web-based, as it is an app, and any storage necessary is local.

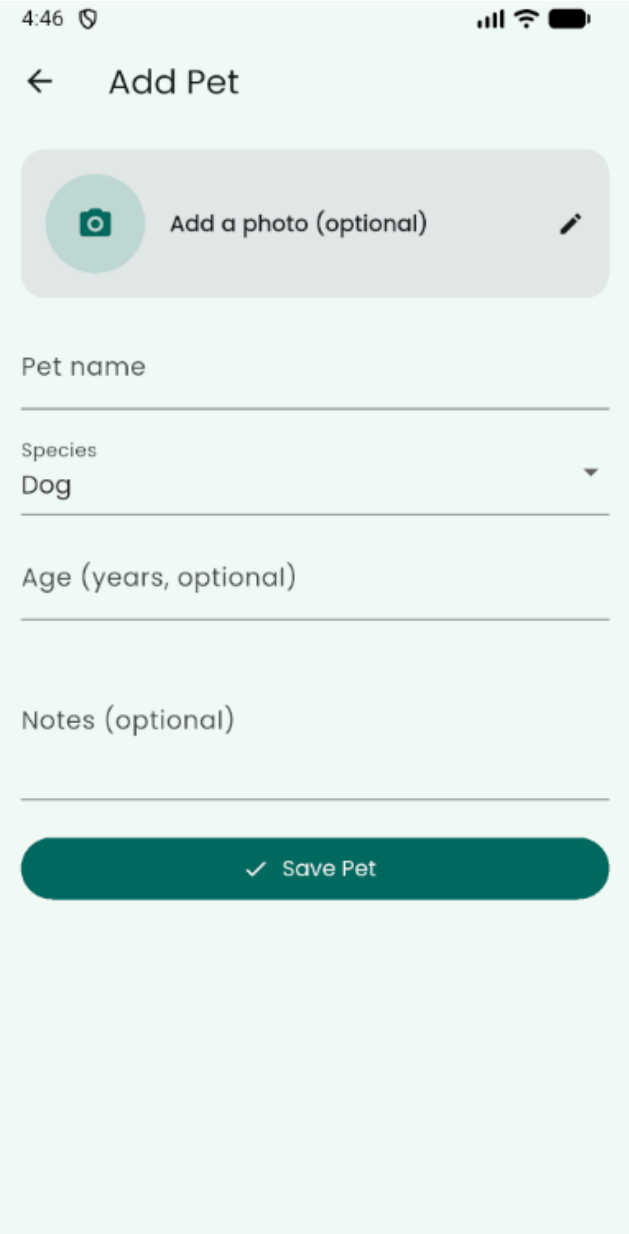
PetAlert follows a local-first information architecture, where user data and settings are stored on-device. Each feature (Pet Profiles, Alerts, Contacts, Recommendations, and Infographics) is accessible via the main Home Screen navigation bar.

Screenshot(s)

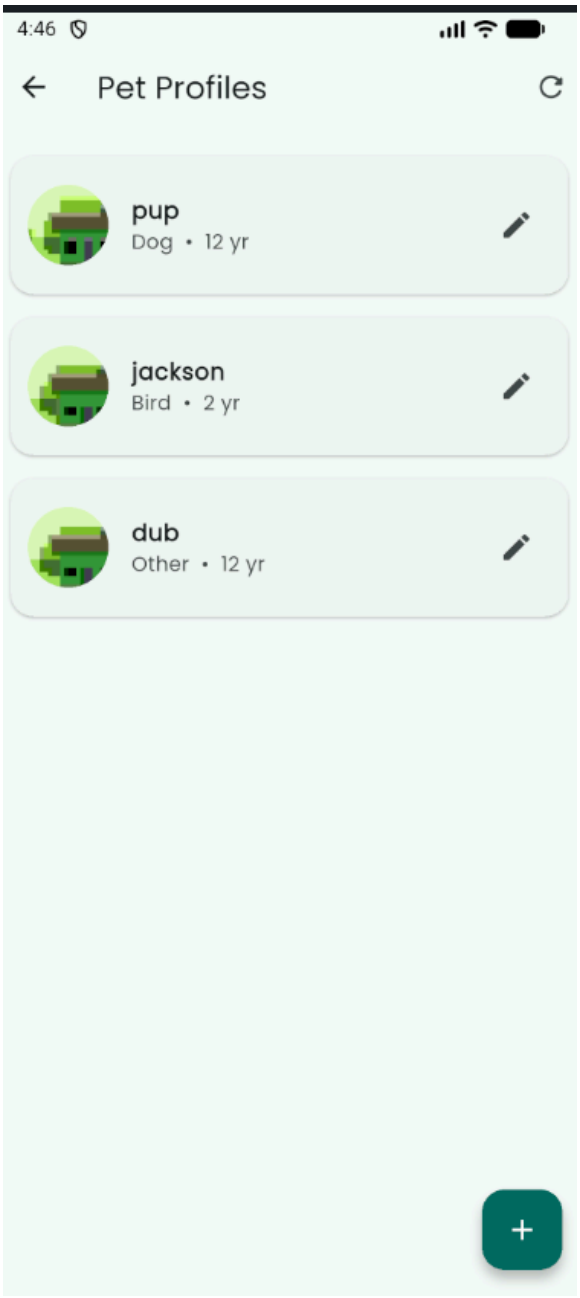
Homescreen is loaded in the android emulator.



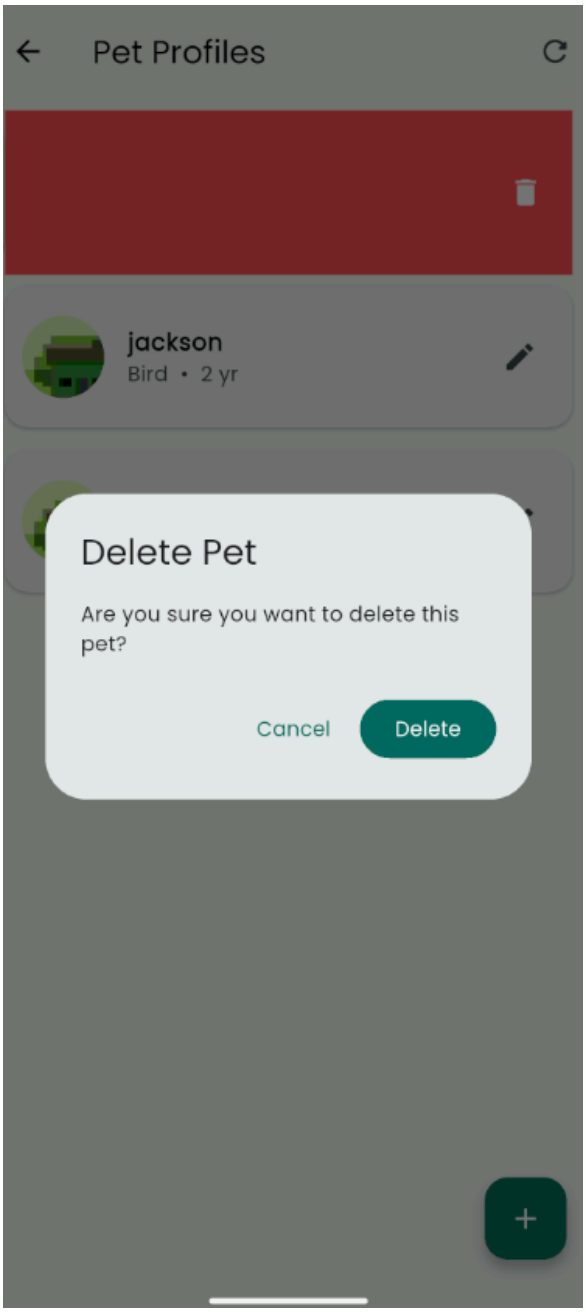
Add pet feature:



Pet Profiles feature:

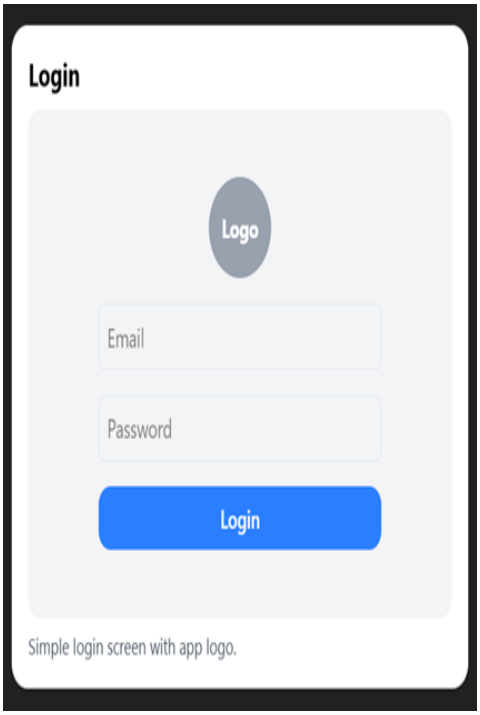


Delete profile feature

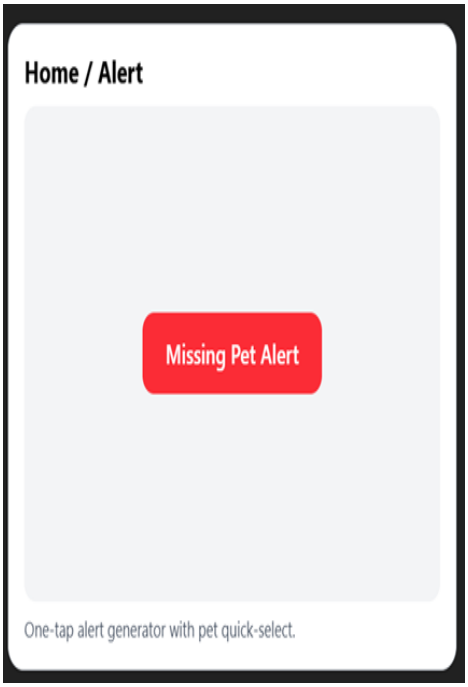


User Interface Wireframe(s)

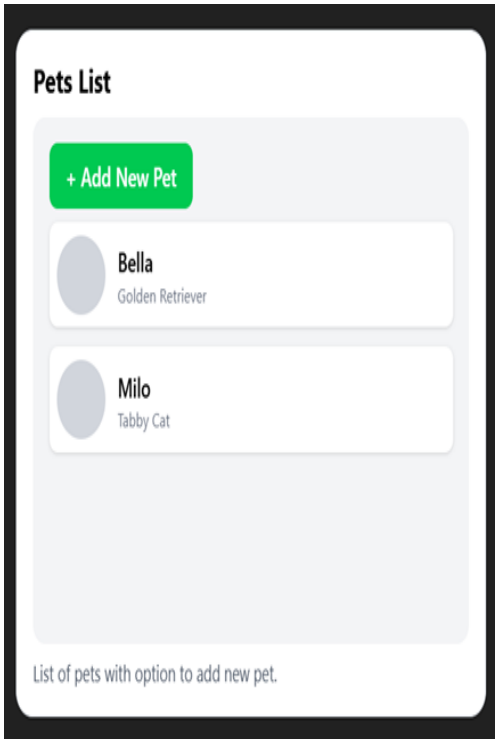
This is the login page where the user logins to the PetAlert app



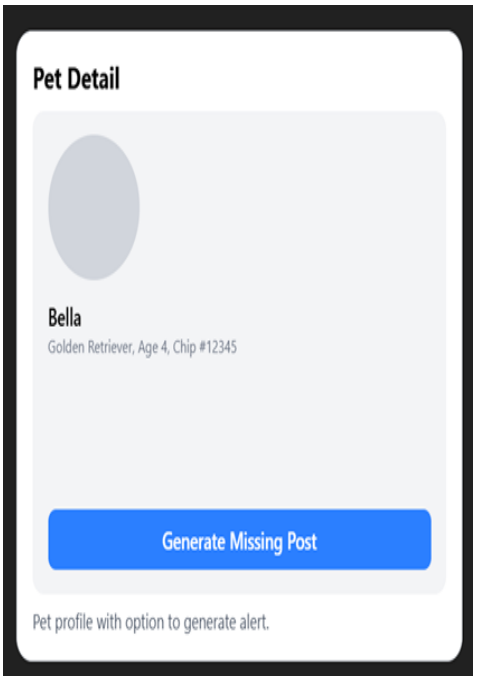
This is a missing pet alert page, where a user needs to report a missing pet by clicking the button



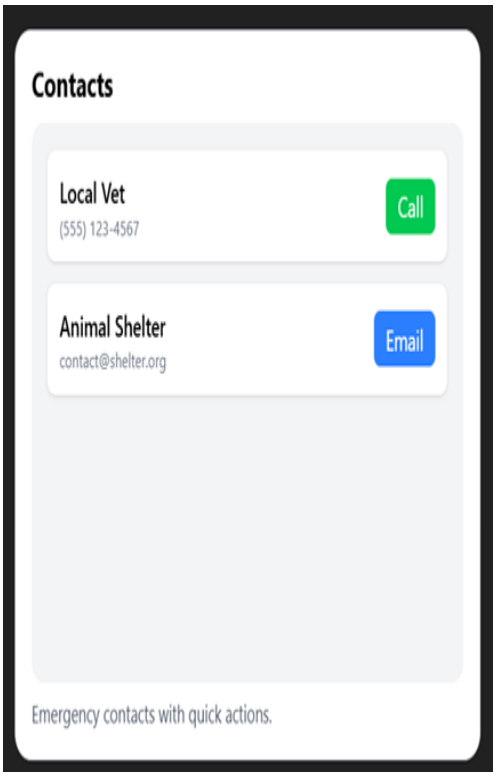
This displays a list of pets, that the user inputs. If the user wants to add a new pet there is a green button above.



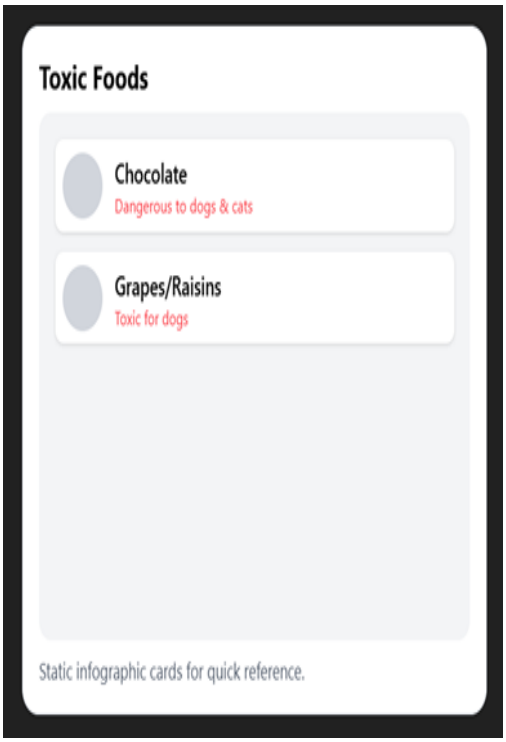
This is a pet profile page where it shows the pet account info



This page lists all the emergency contacts for that specific pet in case they need help



This page will show the infographic of toxic foods that pets can't eat



Design Summary

The design of PetAlert evolved significantly during Sprint 2 as the team transitioned from conceptual wireframes to a fully functional mobile implementation. The system now provides a cohesive and responsive user interface that allows for the complete management of pet information within a single application. Core modules, such as pet creation, editing, deletion, and image upload, have been successfully developed and tested. These features give users the ability to maintain accurate and visually identifiable records for each pet directly from their mobile devices.

In addition to the core CRUD operations for pet profiles, automatic update reminders were implemented to notify users when a pet's information or photo becomes outdated. This feature enhances the reliability of stored data and encourages users to keep records current—an essential element in emergency situations.

The Missing Pet Alert system has also reached an advanced implementation stage. It can now automatically generate preformatted messages and email templates containing

essential pet and owner details. This reduces the time and stress associated with manually composing messages during a crisis, enabling quick communication with local shelters, veterinarians, and law enforcement.

Usability testing during Sprint 2 led to improvements in navigation flow, button layout, and visual hierarchy. Consistent use of typography, color, and spacing across screens created a more intuitive and accessible experience. The home screen now serves as the central hub from which users can navigate to Pet Profiles, Emergency Contacts, Missing Pet Alerts, Recommendations, and Toxic Food Infographics.

Overall, the Sprint 2 implementation reflects a transition from prototype-level screens to a robust, user-centered design. The system emphasizes simplicity, visibility of key actions, and reliable performance on Android devices, aligning with the goal of providing a practical and emotionally supportive tool for pet owners in distressing situations.

Design Rationale

The design decisions made during Sprint 2 were driven by two guiding priorities: functional stability and user empathy. The team focused on ensuring that every implemented feature performed consistently across devices before expanding into more advanced or cloud-reliant capabilities. This decision was influenced by the realization that an offline-first model provides faster access, greater reliability, and higher user trust during emergencies when internet connectivity may be limited.

Earlier iterations of the design included features such as real-time mapping, cloud storage, and social sharing. However, these were postponed after evaluating the project's timeline, technical complexity, and user priorities. Instead, Sprint 2 concentrated on refining the local database logic and optimizing the user interface to ensure smooth navigation, accurate data handling, and a responsive layout adaptable to various screen sizes.

The team adopted a minimal navigation structure, minimizing the number of steps required to perform key actions such as adding a pet, sending an alert, or viewing toxic foods. This approach reduces cognitive load for users who may already be under stress due to a missing pet situation. Each screen was refined to maintain visual clarity—emphasizing primary actions with clearly labeled buttons and concise messaging.

This design philosophy ensures that PetAlert delivers value even in its offline form, laying a foundation for future scalability. Planned future iterations (Sprint 3 and beyond) will integrate cloud synchronization, user authentication, and map-based tracking while maintaining the app's established principles of simplicity, reliability, and emotional ease of use.The design decisions made during Sprint 2 were driven by two guiding priorities: functional stability and user empathy. The team focused on ensuring

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