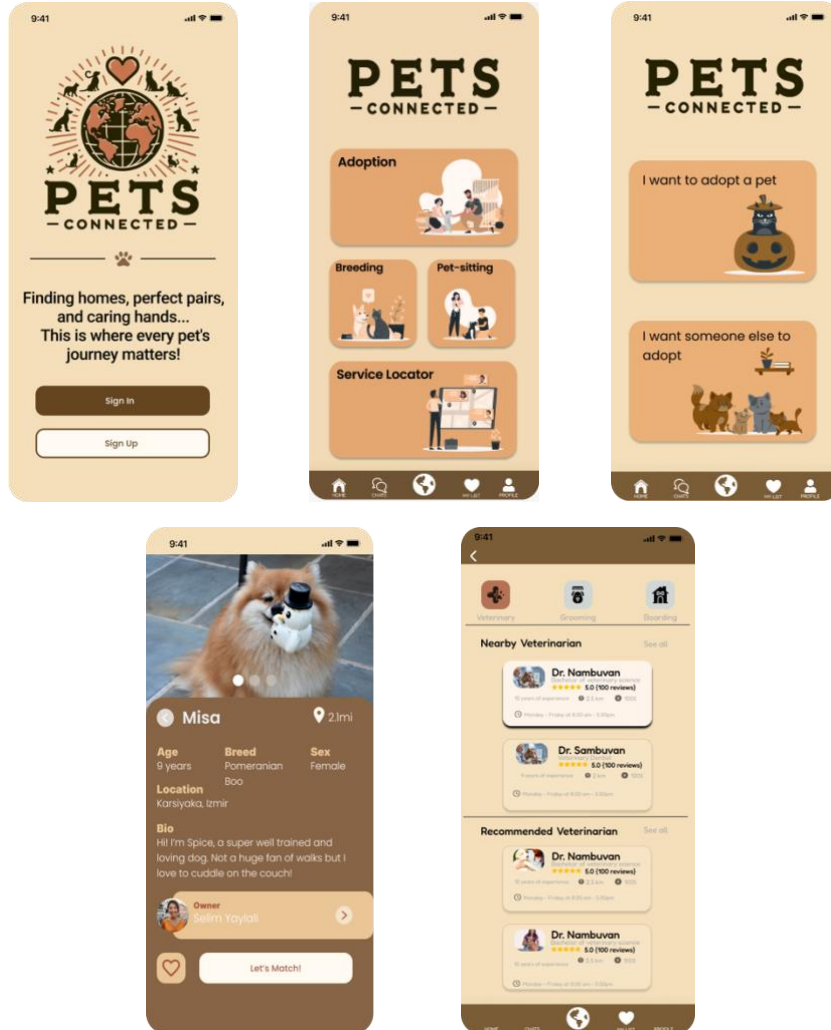


Statement of Work



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Statement of Work

Introduction

In a world increasingly steered by digital solutions, the special connection between humans and their pets continues to thrive and demands a digital counterpart to support it. Our vision materializes through the development of a versatile pet-centric platform, accessible across iOS, Android, and web interfaces. The application is envisioned to serve a multifaceted purpose: to facilitate the adoption of pets into loving homes, to assist in finding responsible breeding partners, and to connect pet owners with vital services, including veterinary care and animal shelters.

To accommodate the busy lives of pet owners, the application will also incorporate a feature for arranging temporary pet care. This function allows users to find and offer services such as pet sitting and dog walking, providing peace of mind for owners when life takes them away from their beloved companions. Encompassing a broad spectrum of pet-related services, the application stands to become a pivotal tool for pet owners worldwide, striving to meet their evolving needs in a fast-paced world.

Purpose of the Project

The project is conceived to harness the power of digital innovation to serve the pet community by developing a comprehensive platform that addresses the multifaceted aspects of pet care and management. It aims to provide an integrated environment where pet owners can not only find resources for adoption and responsible breeding but also access a variety of services essential for pet welfare. By bridging the gap between pet owners and service providers, the platform will streamline the way people care for their pets in a digital age.

Aims of the Project:

Enhance Pet Adoption Processes: Create a user-friendly digital space where shelters and current pet owners can list pets for adoption, making it easier for potential adopters to find and welcome a new pet into their home.

Support Responsible Breeding: Develop a network within the app to connect pet owners looking to breed their pets, with an emphasis on health, compatibility, and ethical practices.

Centralize Pet Care Services: Provide a directory and booking system for pet-related services, including veterinary care, grooming, and emergency shelters, thereby simplifying the process of taking care of a pet's health and well-being.

Facilitate Temporary Pet Care Solutions: Introduce a feature for pet owners to find reliable temporary pet care services, ensuring their pets are looked after with the utmost care when they cannot be present.

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Scope of Work

High Level Tasks	Resources	Role
Overall Project Management	Team	Project Manager
Android Application Development	Ege Demir	Android Developer
iOS Application Development	Yarkin Ataç	iOS Developer
Web Application Development	Selim Yaylalı, Ege Demir	Web Developer
Web Admin Panel Development	Selim Yaylalı	Web Developer
Database Design and Implementation	Berkay Ceylan	Database Designer
Backend API Development	Berkay Ceylan	Backend Developer
Integration Testing	Yarkin Ataç	Tester
Deployment	Team	Product Manager

Deliverables

The project will produce the following components:

- **iOS and Android Apps:** Mobile applications for pet owners and service providers, offering features for adoption, breeding, finding care services, and pet-sitting.
- **Web Portal:** A browser-based version of the app for those who prefer using a computer, providing all the app's features.
- **Backend API:** The technical infrastructure allowing all the app versions to communicate with the server and exchange data.
- **Database:** A secure place to store all the application data, including user profiles and service information.
- **Admin Dashboard:** A control center for the app administrators to manage users and monitor app activities.

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Schedule

The deliverables will be delivered as a demo project at the end of the first iteration of the project and will be delivered as a complete project at the end of the second iteration. You can inspect from the excel file attached to this document.

All components of our project will be done in a parallel manner, you can see them in the [Gantt Chart](#).

Task List and Schedule:

1. **Mobile Applications** (An iOS-based and an Android-based Mobile Applications)
 - Onboarding Screen Implementation:
 - Design and create welcome screens guiding users through the app's features.
 - UI Design:
 - Craft the visual layout and elements for the app interface.
 - Authentication Screens and Functionalities:
 - Develop screens for login, registration, password recovery, and account activation.
 - Pet Services Search Functionalities:
 - Allow users to search for pet services by name or location.
 - Implement location-based services to find nearby pet care, including vets and shelters.
 - Include filter options for refined search results.
 - Profile Features for Pet Owners and Service Providers:
 - Create user profiles with the ability to view and edit personal information.
 - Add specific functionalities such as pet profile management for owners.
 - Pet Matchmaking System:
 - Develop a system for finding pet breeding matches, including detailed pet profiles.
 - Details Pages for Services and Providers:
 - Implement informational pages for services like pet sitting, walking, and veterinary appointments.
 - Push Notification Service:
 - Set up notifications for appointment reminders, messages, and updates.
 - Live Tracking Features:
 - Offer real-time tracking for pet service providers, such as pet sitters en route.
 - Interactive Maps for Pet Walkers:
 - Include route views and updates for pet walkers to efficiently plan their walks.
 - Review and Rating System:

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- Allow users to rate and review services like pet sitting, walking, or veterinary care.
- User Notification Settings:
 - Provide customizable notification preferences for users.
- Historical Notifications Page:
 - Display past notifications and alerts for users to reference.
- Account Deletion Functionality:
 - Enable users to delete their accounts if necessary.
- Logout Functionality:
 - Ensure users can securely log out of the app.
- Upcoming Services Overview:
 - Show upcoming appointments, pet sitting sessions, or other scheduled services for both providers and pet owners.

2. Web Application

- Web Interface Design:
 - Craft the user interface for the web application, ensuring it aligns with the mobile app for a consistent user experience.
- User Account Management:
 - Develop the functionality for user registration, profile management, and account deletion.
- Pet Adoption Portal:
 - Implement features for listing pets available for adoption, user inquiries, and adoption processes.
- Breeding Matchmaking Interface:
 - Create a platform within the web application for pet owners to find and connect with potential breeding partners.
- Service Locator System:
 - Integrate a searchable directory for finding nearby vets, shelters, and pet services, with filtering capabilities.
- Pet-Sitting and Walking Service Arrangement:
 - Enable users to offer, search for, and book pet-sitting and walking services, including calendar integration and payment processing.
- User Reviews and Ratings Submission:
 - Provide a section for users to leave reviews and rate the services they have used.
- Live Chat and Messaging:
 - Implement a communication system for users to interact directly within the web platform.
- Educational Content Hub:
 - Add a resource center with articles, tips, and advice on pet care and ownership.
- Emergency Services Locator:

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- Develop an urgent care locator for pets that provides quick access to emergency services.
- Administrative Functions:
 - Equip the web application with backend administrative functionalities for managing content and user interactions.
- Payment and Donation Processing:
 - Integrate a secure payment system for services rendered and facilitate donations for shelters or rescue operations.
- User Help and Support Center:
 - Establish a help center with FAQs, support ticket submission, and guidance for users who need assistance.
- User Notifications and Alerts:
 - Set up a system for user notifications related to their activity, service changes, or updates on the platform.
- Analytics and Reporting:
- Include features for tracking usage analytics, user engagement, and service metrics for continuous improvement.

3. Web Admin Panel

- Panel UI Design:
 - Develop the interface design for the administrative dashboard.
- Admin Authentication:
 - Implement secure login functionality for administrators.
- Pet Services Management:
 - Enable the creation and management of pet services, such as pet sitting or walking sessions.
- Service Provider Accounts:
 - Create a system for setting up and managing accounts for service providers, like veterinarians or pet sitters.
- Location Management:
 - Add and manage the locations where services are offered, such as vet clinics or shelters.
- Route Planning for Pet Transportation:
 - Implement a mapping feature for planning pet transportation routes, if applicable.
- Manage Service Providers:
 - Develop functionalities for adding or removing service providers and their details.
- Edit Company Information:
 - Set up the ability to edit and update the pet service company's profile and operational details.
- Monitoring Service Provider Activity:
 - Track the working hours, assignments, and service routes of pet service providers.
- Review and Feedback Oversight:

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- Monitor and manage the reviews, feedback, and journey details, such as services rendered and user satisfaction.
- Session Listings:
 - List all available sessions or appointments offered by the service company.
- Session Search by Criteria:
 - Search for sessions or services by specific criteria relevant to the pet service offerings.
- Company Overview:
 - Display an overview of the company's operations, including service providers and registered pet owners.
- User Enrollment Details:
 - Show details of pet owners enrolled in services, including verification of their bookings or payments.
- Pet Owner Account Management:
 - Create and manage pet owner accounts, with the ability to add or remove them from services.
- Payment Verification:
 - Verify and manage payment statuses for services availed by pet owners.
- Reviews and Ratings Monitoring:
 - Display and oversee the reviews and ratings given by pet owners to the services provided.

4. Backend & Web API

- Database Design:
 - Architect a robust database structure to support all application data, ensuring scalability and security.
- Entity Layer Implementation:
 - Develop the data models and business logic layer, mapping out all entities such as users, services, and transactions.
- User Authentication System:
 - Create secure login and registration endpoints for users, along with account verification processes.
- OTP Service Integration:
 - Implement a One-Time Password (OTP) service for enhanced security during account activations and transactions.
- Admin Authentication:
 - Set up a separate login system for administrators with higher security protocols.
- User Management Functionalities:
 - Provide APIs for creating, deleting, and managing user accounts for both pet owners and service providers.
- Service Booking and Management:
 - Enable pet owners to book services, such as pet sitting or veterinary appointments, and allow cancellation or changes.

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- Assignment of Services to Providers:
 - Develop functionality for assigning service providers to specific jobs or sessions.
- Detailed Service Information Access:
 - Create endpoints to retrieve detailed information about services, bookings, and sessions on request.
- Organizational Overview Access:
 - Provide an API to return comprehensive information about the pet service organization, including service offerings and availability.
- Individual Profile Access and Modification:
 - Allow retrieval and editing of personal profiles for users and service providers through secure endpoints.
- Administrative Editing Rights:
 - Grant admin-specific API access for modifying organizational details and overseeing user transactions.
- Payment Verification Flags:
 - Set up a system for marking and tracking verified payments for booked services.
- Advanced Search and Filter Capabilities:
 - Implement a sophisticated search API, allowing users to filter services by various criteria such as name, location, and type.
- Push Notification System:
 - Design a service for sending targeted notifications to users, ensuring timely communication.
- Real-Time Location Sharing:
 - Enable live location updates for service providers during active sessions for operational transparency.
- Dynamic Route Adjustment Notifications:
 - Provide real-time updates to service providers for any changes in routes or schedules due to user updates or other factors.

Applicable Standards

In building our pet-centric application, we'll stick to widely-recognized methods that help us keep our code organized and our app running smoothly:

- For Mobile Apps: We'll use the MVVM pattern, which helps us separate the app's logic from its appearance.
- For the Admin Panel: We'll apply the MVC pattern, which helps keep the administrative interface tidy and manageable.
- For the Backend: We'll organize our database code with the Repository pattern, making it easier to maintain.
- For Security: All our app's communication will happen over HTTPS, keeping user data safe.
- For Programming: We'll follow Object-Oriented Programming principles, making our code clean and reusable.

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Acceptance Criteria

Completion of the Pets Connected will be determined when all deliverables listed earlier are fully functional and the following criteria are met:

- **Functionality:** Both mobile applications and the web admin panel operate as designed, exhibiting a minimal number of defects or bugs that do not significantly impair user experience.
- **User Experience:** The interfaces for mobile and web applications are user-friendly, reflecting a thoughtful design that caters to the users' needs and accounts for potential limitations.
- **Authentication:** The system's authentication processes, including registration, sign-in, and account deletion, are robust, secure, and function without error.
- **Backend and API Performance:** The backend system and APIs respond to client requests accurately, promptly, and securely, ensuring data is transmitted without compromise.
- **Code Quality:** The entire codebase has undergone thorough review and testing by qualified personnel to ensure it adheres to the highest standards of quality.
- **Testing Success:** All developed unit tests have been passed, confirming that individual components of the application perform as expected under test conditions.

Special Requirements

For the successful development and deployment of our app, the following special requirements have been identified:

- **iOS Mobile Application Development:**
 - Utilization of React Native framework for the development of the iOS version of the mobile application.
 - A macOS device will be mandatory for the development team for building and deploying the iOS application to ensure compatibility and adherence to Apple's development guidelines.
- **Android Mobile Application Development:**
 - React Native framework will be employed for crafting the Android version of the mobile application to leverage the latest advancements and features offered by the Android platform.
 - React Native, coupled with JavaScript or TypeScript, will enable us to harness the latest features and advancements in mobile development, ensuring a robust and responsive user experience.
- **Backend Services:**
 - Development of backend services will be conducted in a Visual Studio environment using the .NET framework to ensure a robust and scalable server-side application.
- **Routing API Integration:**
 - Incorporation of a third-party API (to be selected) that will assist with pet service routing for services such as pet transportation or walking, handling dynamic route changes based on specific service locations.
- **Web Admin Panel:**
 - The Web Admin Panel will also be developed using Visual Studio and the .NET framework for consistency and reliability across our development efforts.

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Economic Effects

The implementation of our app is anticipated to have several economic impacts:

- Increased Business for Pet Services:
 - By offering a centralized platform for pet services, we foresee an increase in user engagement and a broader customer base for service providers, which could boost their revenue.
- Operational Cost Savings:
 - Shelters will benefit from more efficient management of their operations. The app's tools for scheduling and resource management could lead to significant cost savings, reducing the financial burden on these organizations.
- On-Demand Economy Adaptation:
 - The platform's adaptability to the on-demand economy can introduce more dynamic service offerings. Shelters can use the app to respond to peak times with additional services or adopt flexible working models for their staff.
- Shelter-Specific Benefits:
 - With the app's aid, shelters can expect higher adoption rates, alleviating costs associated with long-term animal care. Cost-effective marketing through the app can increase donations and community support. Plus, shelters can potentially generate additional income by offering specialized services, like training or boarding, directly through the platform.

Manufacturability, Productivity, and Sustainability

Productivity:

- By employing a unified backend service architecture, the iOS and Android mobile applications, along with the Web Admin Panel, will be able to share and manage data efficiently. This shared infrastructure maximizes productivity by reducing redundancy and ensuring consistency across different platforms.

Sustainability:

- Upon successful registration of users within the system, the stakeholders—ranging from shelter administrators to pet owners—will be capable of operating and sustaining the system autonomously. Administrators using the Web Admin Panel will have the tools to manage all necessary information seamlessly, while users of the mobile applications will be able to access and update data within the boundaries of their specific roles. This level of autonomy is designed to minimize the need for ongoing developer intervention, ensuring the system's longevity and relevance in the pet care ecosystem.

Ethical, Health, and Safety Issues

Ethical Issues:

- Data Privacy: Users' personal data, including any sensitive information like home addresses, will be held in strict confidence and not disclosed to third parties.

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- **Location Data Security:** Real-time location data of pets or users will be accessible only to authorized parties, such as pet owners and service providers, within the context of the service provided.
- **Informed Consent:** Users will be clearly informed about the app's Terms of Use and relevant data protection laws, such as KVKK, and must actively consent to them to access the app's services.

Safety Issues:

- **User-Pet Interaction:** The app will encourage safe interaction between pets and service providers, ensuring pets are handled safely and in accordance with animal welfare standards.

Social, Legal and Political Effects

Social Effects:

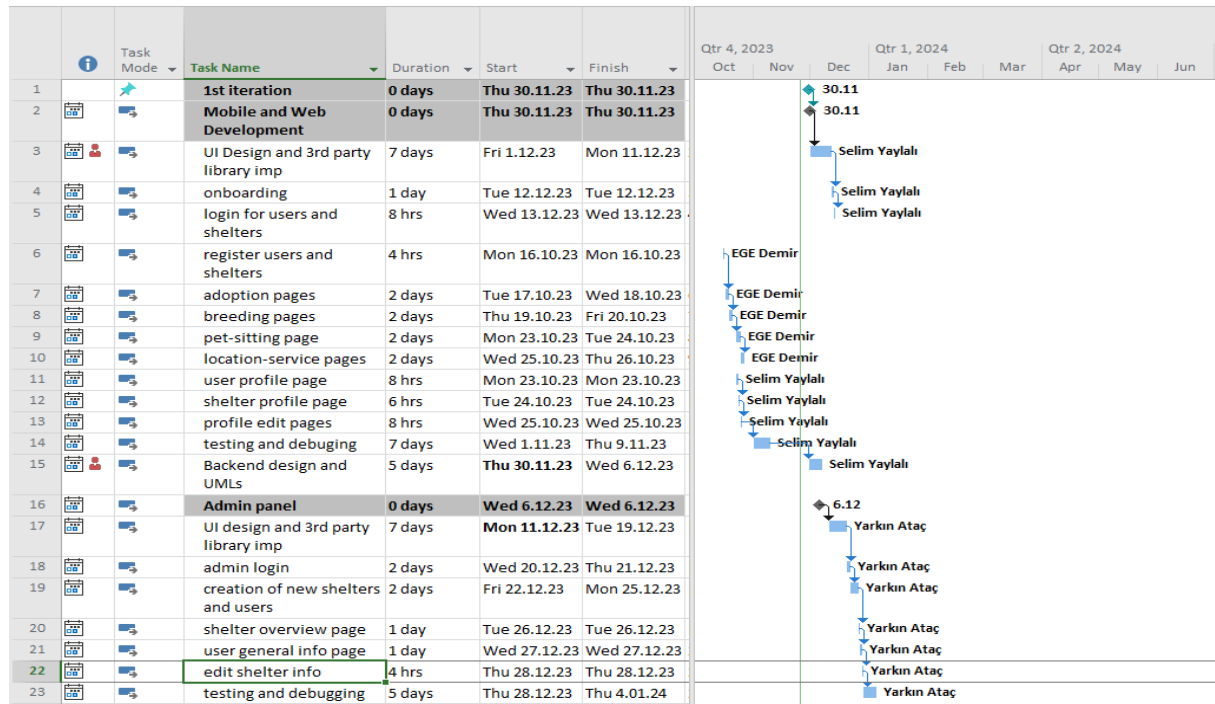
- **Community Building:**
 - The app is expected to strengthen the pet owner community by fostering connections through shared interests in pet care, adoption, and service provision.
- **Increased Awareness:**
 - By providing educational resources, the app will enhance awareness about responsible pet ownership, adoption, and care, potentially leading to better welfare for pets.
- **Reduced Stray Populations:**
 - With increased adoption rates facilitated by the app, there could be a decline in stray pet populations, positively impacting public spaces and community health.

Legal Effects:

- **Data Protection Compliance:**
 - The app will operate in strict adherence to data protection laws, upholding the privacy rights of its users and setting a standard for legal compliance in the digital pet service industry.
- **Regulatory Influence:**
 - Successful implementation may influence legal standards for pet services and welfare, particularly in areas like digital pet health monitoring and ethical breeding practices.
- **Public-Private Partnerships:**
 - There's potential for collaboration with government bodies to support public initiatives for pet welfare, leveraging the app's infrastructure and data insights.

Statement of Work

Gantt Chart



Statement of Work

