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Pet Care System based on Android Application

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ABSTRACT: In this paper we present Pet Care System which is based on android Application. The objective of this system is to provide non exhausting way to take care of your pet based on mobile application. We describe the design approaches and functional components of this system. The system was developed based on domestic pet's experts. The results were divided into 2 parts: developing the mobile application for advice users and analyzing the functionality of the application, by the research purposes. Design of the application and functionality of the system were described.

KEYWORDS: Android Application, Pet caring, Mapping location

I. INTRODUCTION

Pet is a domestic animal. The pet population in India has grown from 7 million in 2006 to 10 million in 2011. On an average 600,000 pets are adopted every year. Now a days petting is just not only from financial point view but also became a new trend. Lots of people finds difficulty of how to take care of their pets and where to keep their pets when they go out of town for couple of days and sometimes people can't pet though they are interested in petting due to some reasons so they can have pet for few times. Having a pet can be a stressful and exhausting experience. So to tackle this situation this application is easier and non-exhausting way to take care of your pet. The pet safety and protection Act would be Establish integrity in the provision of dogs and cats. Lots of location-based Application are growing up by mobile devices with GPS. No pet-care systems and application are available yet.

With recent advances in information technology becoming an integral part of everyday life, smart mobile device is possible to take advantage to advice and guide what care need to be taken and also provide easy way to get rid of the problem which is faced by owner of the pet when they want go out of the town for couple of days where to keep their pets and how to care them. So, to overcome this problem this application is used. In addition, care taker are instructed with respect to diet of the pet and training that should be given to that pet. People who want to give their pets to be taken care will request and the interested people who can take care of pets will replay on the request. This application is android application so that it will be easily accessible on mobile phones at anytime and anywhere.

Therefore, this project aims to implement Pet Care System based on android application so as to advise user to upkeep, feed and find temporary adopter for pet based on mobile application. The remainder of this paper is organized as follows. Section II presents the system framework of this project. Section III presents details of each module, Section IV presents feasibility of the system, Section V presents mathematical model for system. Finally, Section VI concludes the paper with future work.

II. MOTIVATION

The increasing number of pet owners in India and the world face various challenges in caring for their pets, especially when they need to travel or require specialized advice. The motivation behind this system is to provide a convenient, non-exhaustive way for pet owners to ensure their pets' well-being. Additionally, there is a lack of existing applications that connect pet owners with temporary caretakers and provide essential care information in an easy-to-use mobile platform.



III. LITERATURE SURVEY

This paper explores how these technological advancements have revolutionized petcare. By identifying existing technologies and outlining potential areas for further development, this study emphasizes the ongoing necessity for innovation and aims to contribute to the evolution of technology driven pet care practices.

This paper demonstrates the design and manufacturing of a smart and connected internet-of-things collar system for the collection of behavioral and environmental information from working canines. The environmental factors of ambient light, ambient temperature, ambient noise levels, barometric pressure and relative humidity are recorded by the smart collar system in addition to behavioral information about barking incidences and activity levels.

In this paper we present Pet Care System which is based on android application. The objective of this system is to provide non exhausting way to take care of your pet based on mobile application. We describe the design approaches and functional components of this system. The system was developed based on domestic pet's experts. The results were divided into 2 parts: developing the mobile application for advice users and analyzing the functionality of the application, by the research purposes. Design of the application and functionality of the system were described.

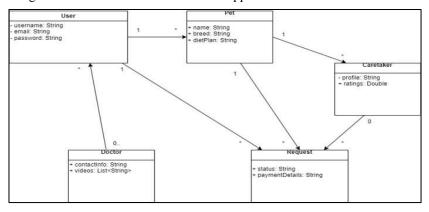
This Paper proposes a multi feature Pet Care and Tracking System to be enforced using an Android Application. The aim of the operation is to make sure the pet can be safely taken care of by its pet proprietor when they aren't beside them. The System was developed with help from pet care health experts who give their experience in making a cohesive system. The findings are therefore divided into 2 parts: building the pet care and tracking mobile apps for advising users and breaking down the functionality of the operation for exploration reasons.

IV. GAP ANALYSIS

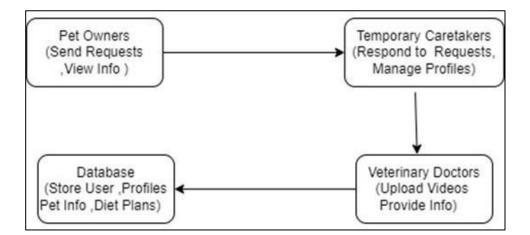
There are currently no widely-adopted mobile applications specifically focused on the temporary care of pets in India. While there are various location-based applications for finding veterinary care and accessing general pet care information, none focus on solving the challenge of finding a temporary caretaker while traveling or being away. Existing platforms might offer pet-care tips but lack the capability for connecting pet owners with temporary caretakers in real-time.

V. CLASS DIAGRAM

The class diagram is a static diagram. It represents the static view of an application. Class diagram is not only used for visualizing, describing and documenting different aspects of a system but also for constructing executable code of the software application. The class diagram describes the attributes and operations of a class and also the constraints imposed on the system. The class diagrams are widely used in the modeling of object-oriented systems because they are the only UML diagrams which can be mapped directly with object-oriented languages. The class diagram shows a collection of classes, interfaces, associations, collaborations and constraints. It is also known as a structural diagram. The purpose of the class diagram is to model the static view of an application.







Data Flow (DFD) Diagram

VI. SYSTEM REQUIREMENTS

Hardware Requirements:

- System: i3/i5/i7 2.4 GHz.
- Hard Disk: 40 GB.
- Monitor: 15 VGA Color.
- RAM: 4 GB

Software Requirements:

Platform:

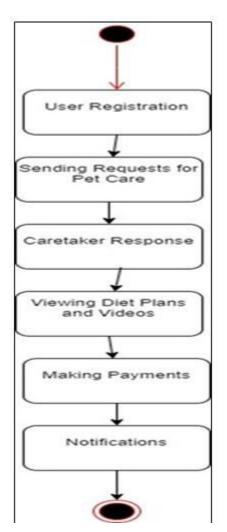
- Operating system: Windows.
- Coding Language: Java
- Database: MySQL /Firebase
- IDE: Android Studio

VII. ADVANTAGES

- 1. Convenience: Users can access services like grooming, walking, or vet appointments from their phones, making it easier to schedule and manage pet care.
- 2. Wide Range of Services: Offers various services in one place, including pet sitting, training, and emergency care, allowing pet owners to find everything they need quickly.
- 3. User Reviews and Ratings: Customers can read reviews about service providers, helping them make informed choices and ensuring quality care for their pets.
- 4. Real-time Updates: Push notifications for appointments, reminders for vaccinations, or updates on pet activities can enhance communication between pet owners and service providers.
- 5. Enhanced Networking: Connects pet owners with local service providers, fostering a community and potentially leading to better services through increased competition.
- 6. Easy Payment Processing: In-app payment options streamline the transaction process, making it convenient for both service providers and pet owners.
- 7. Data Tracking: Allows pet owners to keep records of services used, medical history, and important dates (like vaccination due dates).



VIII. UML DIAGRAMS



IX. CONCLUSION

The pet care service model presents a valuable framework for addressing the diverse needs of pet owners in an increasingly digital world. This review has highlighted the significant advantages of such a model, including enhanced convenience, accessibility to a variety of services, and improved communication between pet owners and service providers. By leveraging technology, these platforms can foster a supportive community, streamline service delivery, and promote responsible pet ownership. However, challenges remain, particularly concerning service quality, market saturation, and user trust. The reliance on technology may alienate some pet owners, and the variability in service provider performance can impact overall satisfaction. Addressing these issues is crucial for the continued growth and acceptance of pet care service apps. Future research should focus on developing strategies to enhance user experience, ensure quality control among service providers, and explore the integration of advanced technologies, such as AI and machine learning, to personalize services further. Additionally, understanding the demographic trends and preferences of pet owners will be essential for tailoring services to meet their specific needs. In conclusion, while the pet care service model offers significant potential to transform the way pet care is managed, ongoing innovation and a commitment to quality will be vital to its success in the evolving landscape of pet ownership.



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