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 pets experts. The results were divided into 2 parts: developing the mobile application for advice users and analysing 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 time. 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. THE SYSTEM FRAMEWORK

To implement this project, we studied and collected data from user’s requirements. The information was used as a source of information for management web and mobile applications and database management and internet network technology were applied to make the system fast and efficiently work. From analysis and design phase, we applied UML (Unified Modelling Language) as a tool for this step and Fig. 1 was presented use case of this application.

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Fig.1 Use case of the Application
The system can be divided into 5 parts as following; a user registers part, an edit profile part, a search part, a categorization part, and a backend part. Fig. 2 presented the framework of the system.

Fig. 2 Framework of Application

In the user registers system, pet’s owner and other users can subscribe his/her profile such as personnel information, pet’s name, email address, username and password, and etc. The people who are facing problems regarding their pets caring can send request to keep their pets for while and interested people can respond them and even can get paid for providing the service. Pet’s all diet related and other information according to their species will be available on this application. Veterinary doctors contacts and address will be present on this application and the doctors who are present nearby their information will be displayed using map and shortest route to reach that location.

Basic pet training related videos will be shared on this application under the guidance of trainers. Also by capturing image of your pet we can find breed of that pet if you are unknown about it to guide from caring point of view. Account for the respective pet can be created on this application using which the notification regarding pet vaccine and meal will be send on time.

III. MODULES AND DETAILS

a) Registration: Registration is done by owner of the pet and the other users of the application.

b) Send Request: Send request is sent by the owner of the pet who wants to find temporary care taker for pet.

c) Reply: Reply is given by the people who are interested in temporary adopting the pet.

d) Accept Request: Accept request module allows owner to accepts requests come from temporary adapter.

e) Find Location: Find Location module provides addresses of the owner, temporary adapter and also veterinary doctors with shortest route to reach that location.

f) View Diet Plan: View diet plan module shows the diet plan for specified pet by retrieving data through database.

g) View Video Link: View video link module provides the training related videos to all users for specified pet.

h) Payment Transfer: Payment transfer module provides payment options and the payment should be done successfully without inconsistency in transaction.

i) Profile: Profile is generated according to the data taken while registration. User can also edit the profiles.

j) Alert Notification: Alert notification regarding pet vaccine and meal will be send on time.

IV. FEASIBILITY OF THE SYSTEM

The problem under consideration is to develop a pet care android application in which the people whom want their pets to be taken care can request and they will find out the interested people. Some interested people will reply to the request and owner of the pet will have the detail information about his/her pet like pet’s diet, hybrids etc. User location will be shown prior to the request and reply. The interested people will be paid by the owner. There are some people who likes pet but they don’t have pets, they also enjoys for some time by having pets and even get paid for it.

For analyzing the feasibility of pet care system we used idea matrix.

| TABLE I | IDEA MATRIX |
|---------|-------------|
| **Increase:** | User awareness. Effectiveness in taking care of pets | **Improve Efficiency:** | Pet can be delivered without much human efforts thereby improves efficiency | **Ignore:** | depends on the integrity of request or deciding whether to accept a request or not. |
| **Drive:** | System driven safety awareness | **Deliver:** | software which is reliable for owner and users | **Decrease:** | Human efforts |
| **Educate:** | Android | **Evaluate:** | relevant cost | **Elimination:** | Manual human |
In this way, feasibility of the problem is analyzed using idea matrix.

V. IMPLEMENTED SYSTEM

The implemented system gives temporary pet adaptation facility on payment basis and other pet related information n. There are two parts in the system first one is owner application and another is doctor application. Owner application has two accounts one for the pet owner and another for care taker(temporary adapter). Owner application provides facility of searching temporary care taker and send request for owner and respond to request for care taker. Owner will also have payment account and can pay for the services by care taker. It also includes ratings for the particular care taker which will be given by owner of the pet. It also shows the pet related information. Doctor application allows veterinary doctors to upload pet related any kind of videos for others.

VI. RESULT OF IMPLEMENTED SYSTEM

1. Doctor application:

   ![Doctor Application Screen](image1)

2. Pet Care Application

   ![Pet Care Application Screen](image2)
VII. ADVANTAGES

1. It is useful for pet lovers.
2. It is user-friendly application.
3. Preserve pet safety act.
4. Improves awareness related to pet.

VI. CONCLUSION WITH FUTURE WORK

In this paper, we show the result of the Pet Care Android Application after successful implementation. However, in term of future experiments, we are looking forward to add new features like breed identification from image of pet and to improve the application by using other advance techniques to enhance this project and also apply the tool to handle this application.

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