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Pet Paradise – A Vet Care Application

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Abstract : *"Pet Paradise" is an application which is simple and easy to use and which is useful for both doctors and customers. Users that are registered can send the symptoms of his pet/animal to the doctor in video, audio, images or text form. The doctors will receive owners request and responds. If there are two/three doctors available at a time, the pet owner can make choice between doctors. Also someone has to buy or sell a pet they can use this application. The system gives temporary pet adoption facility on payment basis, means someone has pet and going outside for few days so he/she can keep pet for some days and pay some money of adaptation. It also include ratings for particular care taker which will be given by the owner of the pet. By using this application people can buy food of their pets Pet blood donation is the initiative taken by pet paradise. 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. This application is useful for distant areas also.*

Keywords –*Blood Donation ,Emergency Treatment Online, Medicines, Foods Pets health care, Hospitals application software, Image recognition ,Machine learning ,Medical diagnosis, Medical Service, Mobile Application, Veterinary.*

I. INTRODUCTION

There are so many common animal diseases. Everybody doesn't feel good to go to the doctor at an initial stage of any basic disease of his pet/animal. Also in villages many people has cows, buffaloes, goats, if such animals get disease so it is not possible for them to take their pet to hospital and there is lack of pet doctors and sometimes if call their phone, they are busy in some area for pet treatment or they don't receive the call and due to lack of treatment pets get more infected by disease. Even they do not know the basic treatment of the disease. In most of the cases, people bring their pets to the doctor at the middle stage of the disease. "Pet Paradise" is an application which is simple and easy to use and which is useful for both doctors and customers.

II. RELATED WORK

Vanshri Saswadkar, et.al [1], 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. 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.

Yasasvi Yallam, et.al [2], The existing system consists of numerous websites and Applications to buy/sell pets and also provides various pet care services, shopping apps for buying pet food and pet accessories, grooming service, veterinary service and so on. One such website provides cemetery service also. And there is no such

website or app for pet blood donation in India. Pet blood donation is the initiative taken by Happy paws application to save a life, as most of the dog and cat owners are not aware of canine blood donation schemes and animal blood banks.

Pradheep Kumar, et.al [3], Using this app we can save pets life by calling the doctor through online appointment at any time. Emergency treatment can be provided for the pets. It helps to find out near peed health care hospitals. Through this app we get advised about medicines to take care about pets. This app is majorly introduced to save the time and easy can classify top most exacting area pet's speclist. In the time of pets accidents we can call to pet's doctor and it will be on condition that treatment to the pets very fast.

Brian Wijaya Aqraldo , et.al [4], People who have pets must love these pets so much that they must take care of them. However, when the pet is lost, the person who has the pet must be troubled when he wants to find the pet. The Detepet Application contains various things that can be done for people who use this application. Customers can also post information in this application.

Raenu Kolandaisamy et.al [5], "Catch, kill, and get paid" is definitely a description job of the private dog catchers that are hired by local councils. They will receive their wages or salaries depending on the number of stray animals they catch and also for culling and disposing the stray animals. These dog catchers use cruel methods to catch them such as using poles and rope nooses. These tools hurt dogs and will cause the dogs to be maimed. The application should be able to drastically reduce the amount of stray animals and help their respective owners to find their desired pets. For instance, the system allows user to adopt pets and to find lost pets.

Aarti Chugh, et.al [6], The focus of this paper is to design and develop the Artificial Intelligence and Machine Learning based system which detects the fungal infection on a pet animal (especially Dog and Cat), and provide the treatment for it. It also provides the causes, Sympanima Prevention for it. The proposed system integrates on Machine Learning algorithm trained on disease dataset, it first detects the species of pet animal by capturing the image of fungal infection of pet by using camera or by uploading the image in the system from the file explorer, and then provide the diagnosis about the fungal disease and its medication and treatment also. Although our system will verify the scan image for determining the diseases in canine.

Bang Liu, et.al [7], The task is to develop an algorithm to classify images of dogs and cats, which is the Dogs vs. Cats competition from Kaggle. They mainly investigated two approaches to address this problem. The first one is a traditional pattern recognition model. They extracted some human-crafted features like color and Dense-SIFT, represented images using bag of words model, and then trained Support Vector Machines(SVMs) classifiers. For the second approach, a they used Dee Convolutional Neural Networks (CNN) to learn features of images and trained Back propagation(BP) Neural Networks and SVMs for classification.

Sneha Grampurohit,et.al [8], The accurate analysis of medical database benefits in early disease prediction, patient care and community services. The techniques of machine learning have been successfully employed in assorted applications including disease prediction. The aim of developing classifier system using machine learning algorithms is to immensely help to solve the health-related issues by assisting the physicians to predict and diagnose diseases at an early stage. The research work carried out demonstrates the disease prediction system developed using Machine learning algorithms such as Decision Tree classifier, Random forest classifier, and Naïve Bayes classifier.

Wakhid Suprantono, et.al [9], The purpose of this study is to help cat owners make it easier to meet the needs of their pet cat. By utilizing the technology that is already available on an android smartphone, the Global Positioning System (GPS) and the second web service technology, it can be used to get a position and store data using an Android smartphone device. After testing with the black box method and conducting a questionnaire, the conclusions obtained are the need for an application that can find a cat owner whose cat wants to be mated, an application that can facilitate cat owners to consult with veterinarians, as well as applications thatcan facilitate cat owners in finding products the needs of her pet cat without having to come to the pet store.

S.Prasanna Dev, et.al [10], This applications are software's specically designed for mobile devices. The paper reports the results of a survey about app us by the Veterinarians. Despite digital literacy, the present paper indicates that there is a potential for adoption of the mobile apps by the Veterinary professionals. Helps medical students and medical professionals resulted in downloading medical related app which helps them to access medical information with ease instead of carrying the hard copy and the book.

Anant Sharma,[11]Due to excessive breeding or cross-breeding, the nature of an animal like a dog has varied a lot from years ago. Using Image processing for the breed analysis will predict the exact result/s with maximum accuracy, unlike naked eye recognition ADA boosting methodology is used for breed analysis and recognition. ADA Boosting creates a strong classifier from several weak classifiers. To separate the dog breeds from one another, we use Image processing classification. It predicts the predominant breed/s present in the canine with maximum accuracy. Since the dogs may be cross-breed or had cross-breed predecessors, they may have a variety of breeds present in them, so using Image processing Classification tools we find the correct breed/s. It will be essential for easy classification of the dogs based on breeds and it can provide proof that naked eye recognition

of breeds is undependable or trivial. Using Image processing analysis, we can analyze and do recognition of various animals like sheep, cattle, etc.

Whitney LaRowet, et.al [12], This project hopes to identify dog breeds from images. This is a fine-grained classification problem: all breeds of Canis lupus familiaris share similar body features and over-all structure, so differentiating between breeds is a difficult problem. This project uses computer vision and machine learning techniques to predict dog breeds from images. First,we identify dog facial keypoints for each image using a convolutional neural network. These keypoints are then used to extract features via SIFT descriptors and color histograms. We then compare a variety of classification algorithms, which use these features to predict the breed of the dog shown in the image. Our best classifier is an SVM with a linear kernel and it predicts the correct dog breed on its first guess 52% of the time; 90% of the time the correct dog breed is in the top 10 predictions.

III. METHODOLOGY

We created a application “Pet Paradise – a Vet care app” which is specially design for domestic and pet animals. The app has 3 users doctor , animal owner and shop uploader.The application stores the description about different animals breeds using database which makes users easier to buy a pet of their choice by contacting us. Pet Owners can easily buy pet food and accessories just by one click. For pet care, user gets services like veterinary and grooming services. To get these services users can book a vet by details. We also provide blood donation where you can donate your pet's blood or you can receive it from other pet if needed and all the information will be provided about the donor and the receiver. This app also provides pet exercise which displays GIF and description about how to exercise at home easily in order to make your pet fit and healthy. Users get all the above services within a single application. all the above services are provided just by registering to the application, all the user details and requests are stored safely and securely in firebase database using firebase authentication and firebase real time database. We created a section where you can identify the animal breed by clicking their images. For this we had used tensflow module to train assets. We had added google maps which show the location of near by vet service in our location.

IV. FIGURES AND TABLES

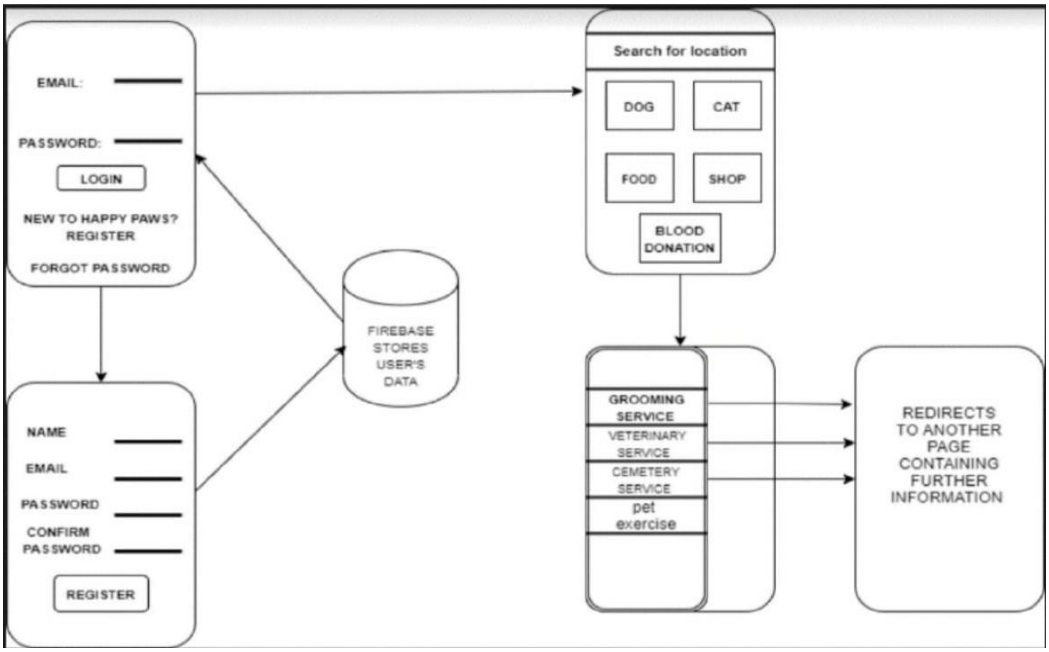

Fig 1: block diagram

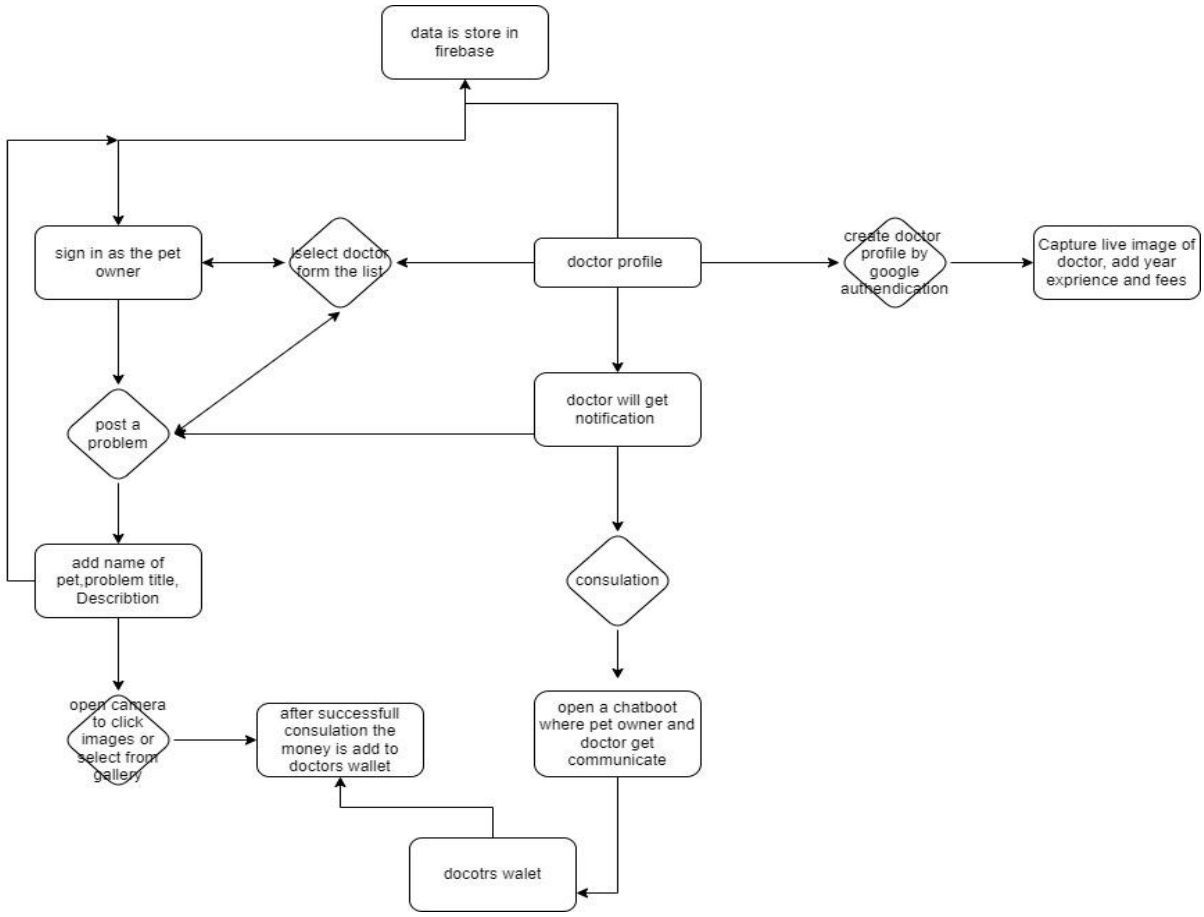

Fig 2 : block diagram of doctor and pet owner

Fig 2 give the block diagram of doctor and pet owner. First the pet owner has to select doctor from the list the he has to add images and descripttion doctor will get notification of the pet owner who is going to conctact them. After that a chatroom will opn where they can communicate easily and doctor will give suggestion.

V. RESULTS

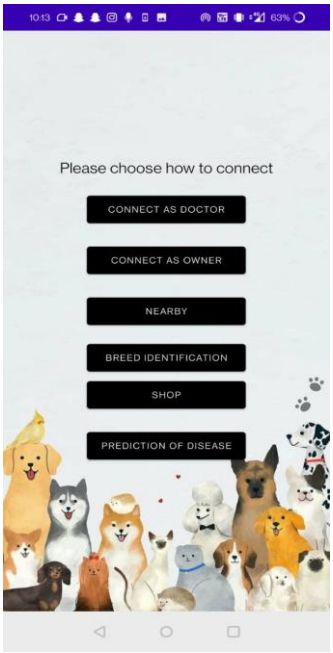

Fig 3:home page

Fig 4: place where pet owner will post problem by adding images

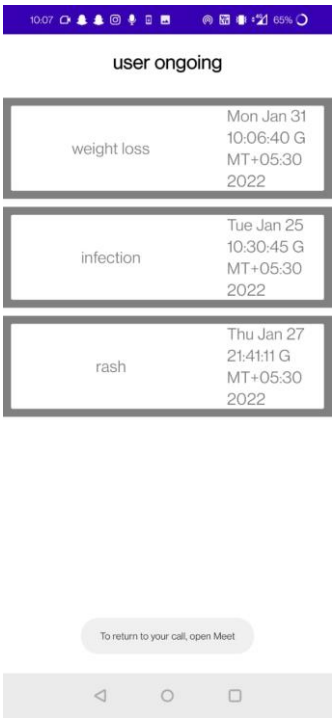

Fig 5:Doctor will see the problem post by pet owner

Fig 6:chatroom for doctor and pet owner

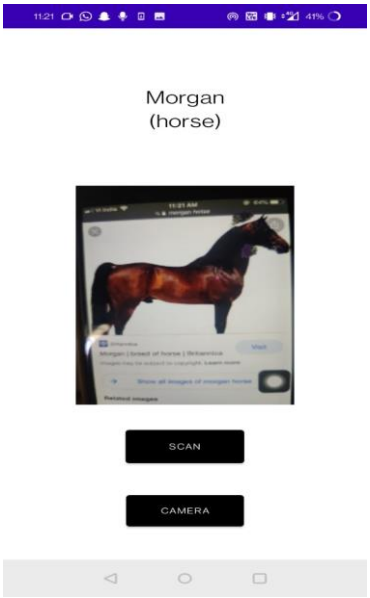

Fig 7:breed identification by clicking live images

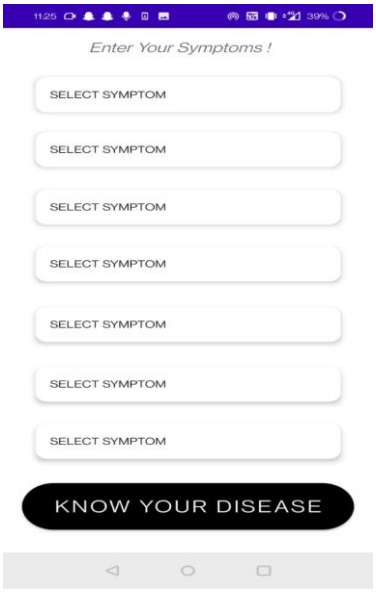

Fig 8 :disease prediction by adding symptoms

VI. CONCLUSION

The proposed system is mobile application that allows user to access all the different services within single application. Nowdays, it is to complex task to get appointment offline so it is makes easier to get appointment online by saving time, saving data and easy to purchase and receive at your door step. So finally, we

can conclude that our project is working well as it is analyzing the images of pets with infections correctly and giving the correct results about diagnosis and treatment, the overall working of project is as per desired. And the project is able to help the veterinary doctors, and the pet owners who need veterinary advice in emergency for sure in respect of treating pets' fungal infection. Also, Future scope of project is very nice as it can be implemented in App based form and become more convenient in future.

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