Design and Development of Online Pet Care System

Prof. Aishwarya Kadam[1], Chaitanya Kalpande[2], Atharva Dharasurkar[3], Jaydeep Khengle[4], Ram Dube[5]

Professor, Smt. Kashibai Navale College of Engineering, BE, Pune, India[1]

Student, Smt. Kashibai Navale College of Engineering, BE, Pune, India[2,3,4,5]

Abstract: For many years animals have had a special place in the heart of residents. People view animals as their friends and children, appeared in art and sculptures as the companion of gods, and have long been a symbol of power. With the rich historical relationship between Indians and animals, we may be curious about what the state of pet ownership in the country is like. The pet population in India is estimated to be around 32 million, growing at 11% per annum, with dogs being the most popular, followed by cats and fish. The pet adoption rate is above 10% with the GenZ contributing to the new pet population. At an overall level, the market has increased more than 20% CAGR (Compound Annual Growth Rate) in the last 2 years of the pandemic. Some brands like Purina have talked about 80%+ growth in the last year itself. The rapid growth of the pet care industry, coupled with the increasing importance of technology in our daily lives, has led to a demand for innovative solutions that streamline and enhance pet care services. This paper presents the Design and Development of an Online Pet Care System, a comprehensive web and app based platform aimed at improving the efficiency and accessibility of pet care services. The Online Pet Care System leverages the power of modern technology to connect animal lovers, pet owners, pet care service providers, and veterinarians through a user-friendly and interactive interface. The system offers a range of features, including veterinary consultations, temporary foster parenting, entertainment, selling/adopting pets, blood bank, pet-related e-commerce, facilitating efficient pet care management.

Keywords: Online Pet Care System, Pet Care Services, Pet Health, Foster Parent, Web Development, App Development, User Interface, Telehealth, Technology Integration.

I. INTRODUCTION

Owning a pet is a significant responsibility that requires pet owners to provide care and attention to their pets' daily needs. However, managing pets' health, diet, and exercise routines can be challenging, especially for busy pet owners. A platform for pet care and maintenance can help pet owners stay organized and on top of their pets' needs by providing a centralized location for pet-related activities and resources. Also, in today's era petting is just not only from financial point view but also became a new trend. With recent growth in the information technology sector becoming one of the essential part of everyday life. In today's times smart mobile devices gives advantage to suggest and show the path or guide us about what care need to be taken and also come up with easy way to get rid of the problems which is faced by pet owners or animal lovers when they want to go out of the town for few days whom to give their pets and how to care them. Having a pet can be loving and enjoyable as well as stressful and exhausting experience.

The "Design and Development of Online Pet Care System" project aims to address the various challenges faced by pet owners, pet care providers, and animal enthusiasts in ensuring the well-being and proper management of pets. This system harnesses the power of technology to simplify, streamline, and enhance the overall experience of pet ownership and pet-related services.

II. LITERATURE SURVEY

1) Ghatak and Singh (2015), researched "Veterinary public health in India: current status and future needs" states that due to high population density, the re-emergence of zoophytic pathogens, environmental pollution and antimicrobial resistance, it urges the need for the development of VPH(Veterinary public health) in India. According to Ghatak and Singh's (2015) study, "Veterinary public health in India: current status and future requirements," the country urgently needs to develop VPH due to its high population density, the resurgence of zoonotic infections, environmental pollution, and antibiotic resistance. Although VPH is not yet accepted practice in India, official medical authorities are working to promote a functional VPH service as an addition to the nation's general healthcare system.

2) The scientific correspondence "Feral dogs of Spiti Valley, Himachal Pradesh: an emerging threat for wildlife and human life" by Kumar and Paliwal

(2015) reveals that the valley lacks administrative support to control the frequent reproduction of dogs, resulting in overpopulation and subsequent problems. The care and love shown towards our animal companions have made it important for the services that this application provides to be easily accessible. This means that around the globe, many have tried and tested countless amounts of ways in which the average pet owner would be able to more conveniently and effectively take care for their pets. These attempts have aimed at a to many different ways in which pet care could be enhanced. Owing to the tough demanding daily life, filled to the brim with appointments and what have you, it may be easy to take the health and well-being of your pets for granted. However, constant check-ups and monitoring of the health of your pets is anything but a crucial task. Understanding this, while certain systems have chosen to focus on the veterinary clinic and medical centre's points of view by providing a detailed medical history of the pet in question to the user , this system has chosen to prioritize the convenience and needs of the pet owner by simply providing details relevant to the appointments relevant to their pets' health and well-being (Grooming, care, medical appointments, etc.)

3) Pets and pet owners would require a near-endless supply of various kinds of products. Both perishable products such as specialized pet food and healthcare items along with equipment to aid in raising pets and even toys etc. are products that almost all pet owners would require at some point or another. Due to this undeniable need to be able to procure items that would be necessary to combat the daily challenges brought about by raising pets, certain systems have focused on pet shops as the beneficiaries of their functions. These systems would allow for easy cataloguing, browsing, and recording of various pet-care items and goods . The Pet Care Management System on the other hand would need to solve the same issue, whilst focusing on the perspective of the pet owners, thus leading to the implementation of a pet-care item purchasing function, which would allow users to browse through, locate and purchase their choice of an accessory or good for their own pets.
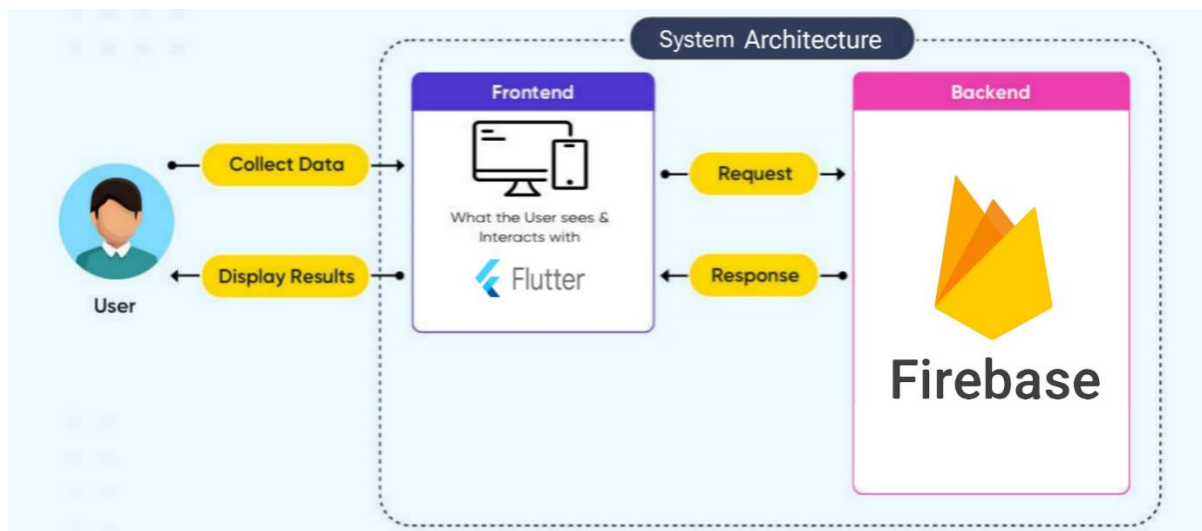
III. METHODOLOGY

Fig. 3.1 Proposed System Architecture

System Functionalities:
1)   Foster Care:
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. In the current timeline there are places such as daycare present for pets where pet parent can leave their pet for the time they want. But some pet parents have a bad experience about the daycare for their pets. So, we intend to create an online interface where both parties, the pet owner and the person willing for foster parenting can meet and discuss about foster parenting of the pet.
2)   Veterinary:

Pet parents due to their heavy schedule are not able to visit veterinary. Online veterinary clinics offer pet owners the opportunity to consult with licensed veterinarians or veterinary professionals via video calls, phone calls, chat, or email. These virtual consultations allow pet owners to discuss their animal's health concerns, ask questions, and receive advice from the comfort of their homes. Also list and ways to contacts veterinary surgeon would help the pet parent to take care of their pets.

3) Shopping:

Shopping for pets is a foremost job to be done by the pet parent. Pet owners can surf all the essentials at one place, it might be the toys, food, clothes, and many more and then redirected to the website offering the correct price. All essentials of pets are listed in the interface so that the pet parent can order.

4) Adoption/Sale:

Selling/Adopting a pet is one of the biggest tasks to ensure that the seller or buyer is legit. The project helps you to do so. Also, if someone has lost the pet or found a home friendly pet can create a post accordingly so that the pet can return to its parent.

IV. INTERFACES
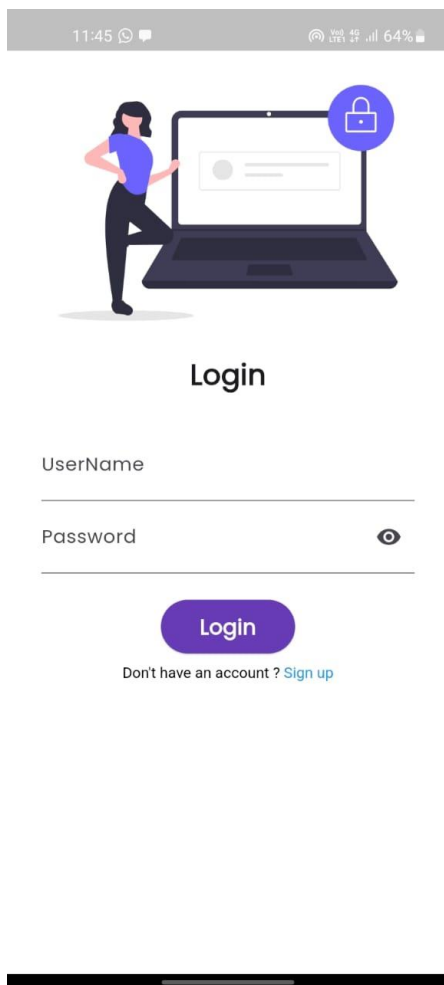
Fig.4.1 Login Page
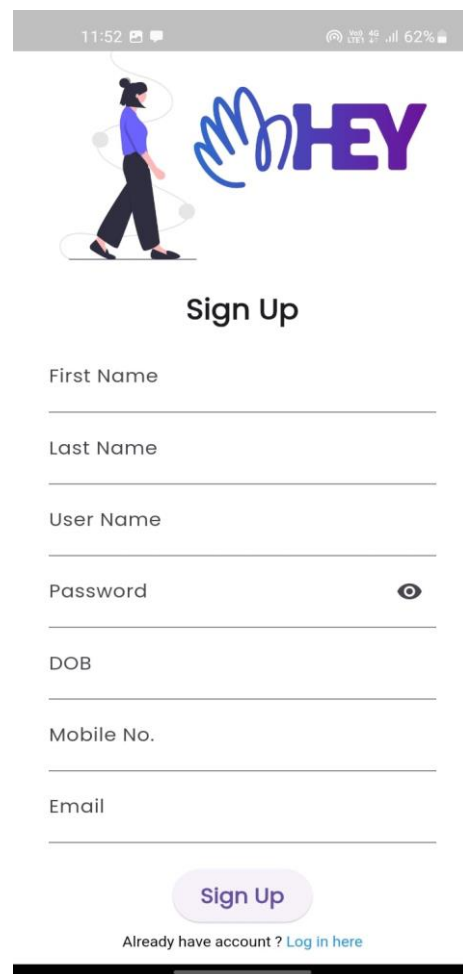The image shows a login mobile screen for application

Fig.4.2 Sign-up Page
The image shows sign-up screen for our mobile

Fig 4.3 Pet Services
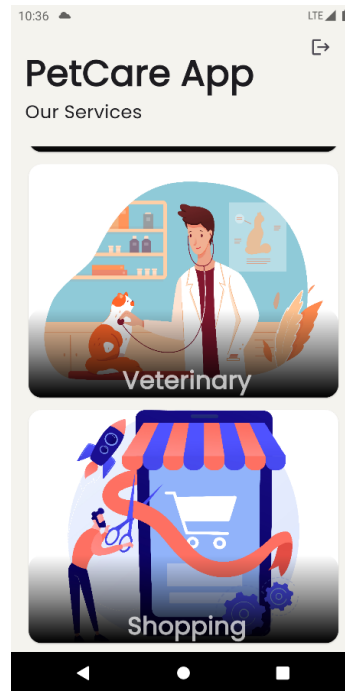This image shows few of our services such as Foster Parent and Veterinary.

Fig 4.4 Pet Services
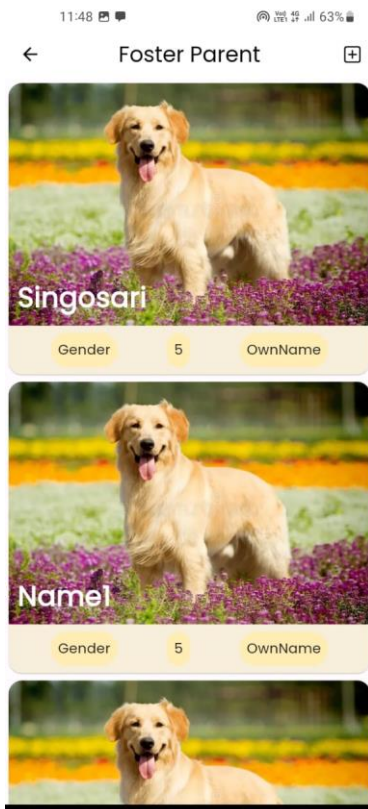This image shows our other services such as shopping

Fig.4.5 Foster Parenting
 This image shows
insight of Foster Parent.

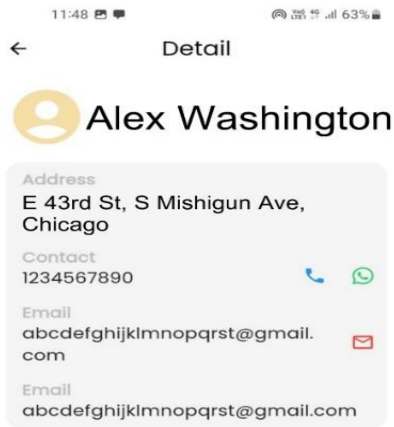Fig 4.6 Pet Information
This image shows
information of a pet.

Fig.4.7 Owner Information
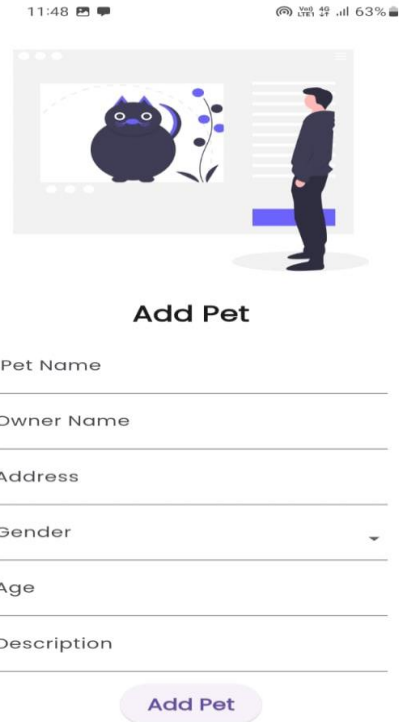This image shows the Pet
owner details.

Fig 4.8 Register your pet
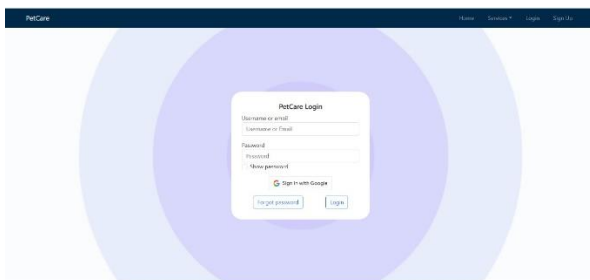If you want to register
your Pet you can register here.

Fig.4.9 Website Login
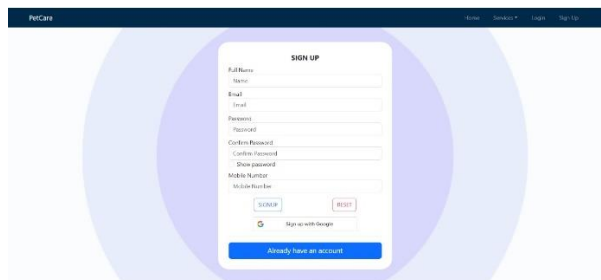The image shows a login screen
for our website

Fig 4.10 Website Sign-up
This image shows sign-up of
our website

Fig.4.11 Home Page
This the home page of the website

Fig 4.12 Services on Website
This image shows all the services we provide on the website.
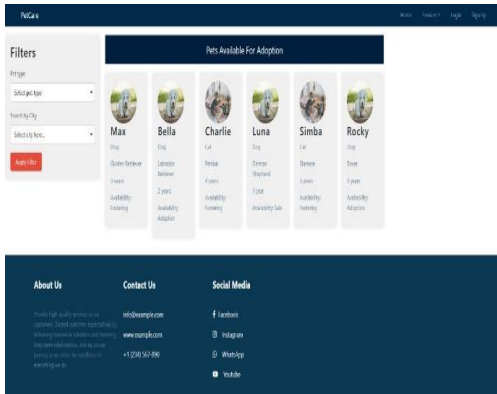
Fig.4.13 Pet for Adoption
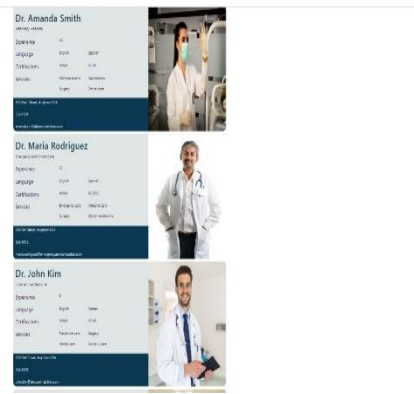This image shows the pets
available for adoption.

Fig 4.14 Details of Doctor
This image shows the contact details of the doctors
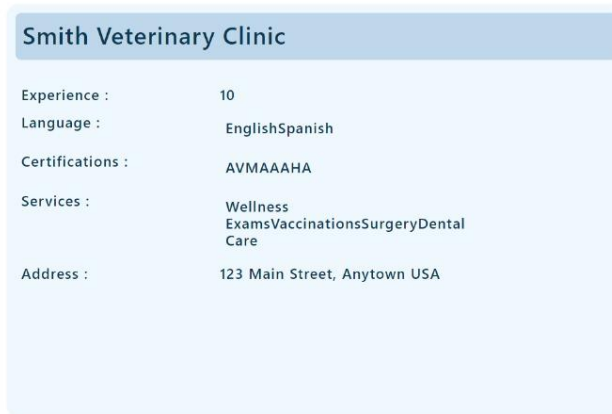Currently available for your assistance.

Fig.4.15 Detail of Doctor requested by you

This image shows the details of a specific doctors.

V. CONCLUSION

The Pet Care and Management System project aims to revolutionize the way pet care is managed by providing an intuitive and comprehensive digital platform. The development of an online pet care system represents a significant stride toward enhancing the well-being of our furry companions. Through its innovative features and user-friendly interface, the project strives to make a positive impact on the lives of both pets and their owners. This innovative platform blends convenience with comprehensive care, catering to the diverse needs of pet owners and their beloved animals. By fostering seamless access to resources, services, and expert guidance, this system not only simplifies pet care but also strengthens the bond between pets and their owners. As we embrace technological advancements to better the lives of our pets, this online system stands as a testament to our commitment to ensuring happier, healthier, and more fulfilling lives for our cherished companions.

REFERENCES

[1] The Humane Society of the United States has a comprehensive guide on interacting with street dogs, which includes dos and don'ts: https:// www. humanesociety.org/resources/how-safely-interact-dogs.

[2] E. M. T. Abdalameer. (2016). Pet health care system. Journal University of Kerbala, 14.

[3]https://www.researchgate.net/publication/437615 9_Pet_Shop_Management_System_for_Klinik_Vet erinar_Surgeri_Jawhari.