

Animal HealthCare

An Engineering Project in Community Service

Phase – II Report

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Bonafide Certificate

Certified that this project report titled “**Animal HealthCare**” is the bonafide work of **Utkarsh Kumar 20BCE10622, Shivansh Shukla 20BCE10559, Abhishek Thapliyal 20BCE10231, Priyanshu Nagariya 20BCE10814, Piyush Das 20BCE10642, Radhika Gour 20MIP10021, Shivam Kumar 20MIM10126, Sahil Singh Kushwaha 20BAI10172**” who carried out the project work under my supervision.

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Comments & Signature (Reviewer 1)

Comments & Signature (Reviewer 2)

INTRODUCTION

Animal healthcare is a setting for animals that enables us to offer them all the amenities in one location. From the time of an animal's birth until the time of its death, we offer all the necessary assistance in this service-providing environment. This includes providing any animal with all necessary medical treatment as well as mentoring and physical, mental, and emotional support. For active use, professionals including doctors, dieticians, trainers, and NGO's are accessible. This will give people a fantastic opportunity to take care of their pets.

MOTIVATION

Consider the lives of street animals who have no one to care for them. Our great ambition is to provide any form of assistance to all animals. In today's world, a person with a pet does his or her hardest to provide all the facilities to his or her pet, but sometimes fails.

OBJECTIVE

- ❖ To reach out all animals who need help
- ❖ To provide better healthcare facilities to animal
- ❖ To reduce a death ratio of street animals
- ❖ To provide shelters to street animals
- ❖ To provide dieticians, trainers, doctors to pet owners
- ❖ To give information to NGO's about ownerless animals.
- ❖ To help people who are making animal product by allowing them to sell the product to website.

EXISTING WORK

Animal healthcare projects currently involve a substantial amount of work, including research studies, field projects, and instructional initiatives. Some instances of these endeavours include:

- ❖ The International Livestock Research Institute (ILRI) and several African nations are working together on the African Livestock Productivity and Health Advancement (ALPHA) project, which aims to increase animal productivity and health through the use of vaccines, improved animal genetics, and better veterinary services.
- ❖ Pashu Sanjivani: The Indian government has released the Pashu Sanjivani smartphone app to make it easier to diagnose and cure cattle ailments. The app gives information on the availability of medications at nearby veterinary hospitals and aids veterinary officials in the diagnosis of ailments.
- ❖ Kamdhenu: The Indian government's Kamdhenu initiative aims to enhance the well-being and productivity of cows. The program's main goal is to give cows improved housing, healthcare, and feeding options.
- ❖ National Animal Disease Control Program (NADCP): This programme attempts to control and eradicate important animal illnesses in cattle, buffalo, and small ruminants, such as foot-and-mouth disease, brucellosis, and tuberculosis.
- ❖ Rashtriya Gokul Mission (RGM): With an emphasis on enhancing the genetic quality and productivity of indigenous breeds of cattle and buffalo, RGM intends to protect and enhance these animals.
- ❖ The Integrated Disease Surveillance Project (IDSP) uses an integrated disease surveillance system to track and prevent the transmission of zoonotic diseases (diseases that can be transferred from animals to humans).
- ❖ Animal Welfare Board of India (AWBI): The AWBI is a statutory body under the Ministry of Environment, Forests and Climate Change, Government of India. It works to promote animal welfare by implementing animal welfare laws and regulations.
- ❖ Animal Welfare Board of India (AWBI): The AWBI is a government of India agency that is under the Ministry of Environment, Forests, and Climate Change. By putting animal welfare rules and regulations into effect, it aims to enhance animal welfare.
- ❖ Blue Cross of India: A non-governmental group who strives to raise awareness about animal welfare and rights while also providing refuge and medical care for stray animals.
- ❖ Help in Suffering: This non-governmental organisation also aims to advance animal welfare and rights in India while also offering shelter and medical care to stray animals.

LITERATURE REVIEW

Many programmes in the field of animal healthcare are aimed at enhancing the welfare and health of domesticated animals, wild animals, and cattle. A survey of the literature on projects aimed at improving the health of animals finds a variety of methods, including vaccination campaigns, disease surveillance and control, veterinarian care and training, and public education and awareness campaigns.

In one study, conducted by Dohoo et al. in 2017, the effect of an Indian national animal disease control programme on the incidence of brucellosis and bovine tuberculosis was assessed. The programme, the authors discovered, had a sizable effect on lowering the prevalence of these diseases, underlining the significance of disease management initiatives in enhancing animal health.

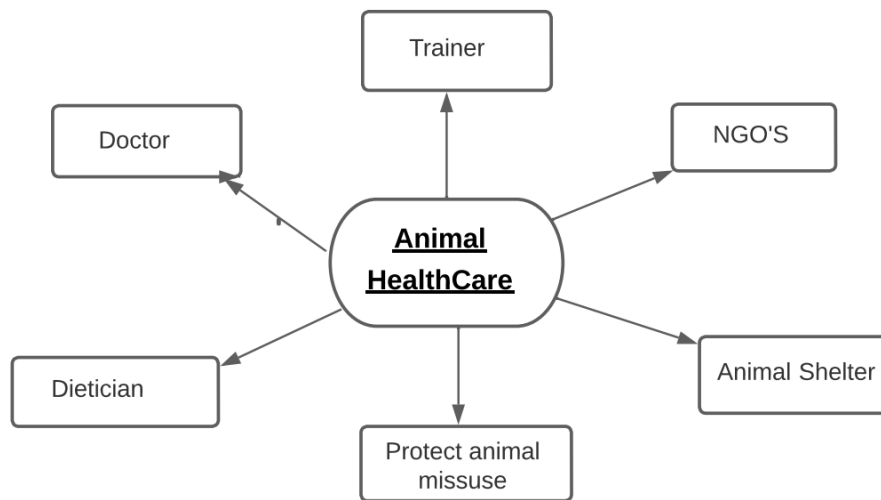
Another Study by Bhandari et al. (2015) looked at the influence of vaccination programmes on the frequency of foot-and-mouth disease (FMD) in Gujarat, India, in another research. The effectiveness of the immunisation campaign in lowering FMD cases, according to the authors, highlights the value of vaccination as a disease prevention measure.

Many initiatives have centred on enhancing veterinarian care and training in addition to disease management strategies. A research conducted by Kumar et al. (2018) assessed the effectiveness of a veterinary outreach programme in rural India that sought to enhance the expertise of nearby veterinarians. The program's remarkable increases in veterinary knowledge and abilities, according to the authors, underline the need of continued training and assistance for veterinary practitioners.

Lastly, public education and awareness campaigns have been a major emphasis of many animal healthcare initiatives. An evaluation of the effects of an animal care education programme in Chennai, India, schools was done by Ramachandran et al. (2018). The programme, according to the authors' research, significantly raised students' knowledge and awareness of problems relating to animal care. This proves the value of early education and awareness campaigns in promoting animal welfare.

Overall, the literature review emphasises the value of an integrated strategy for animal healthcare, with an emphasis on illness prevention, veterinarian treatment, and training, as well as public awareness and education campaigns.

SYSTEM DESIGN/ ARCHITECTURE



WORKING PRINCIPLE

The picture taken by the user is uploaded and stored in the database which is then visible to the people and organizations linked to our website like doctors, dietitians, NGOs who provide all the possible solutions to the user according to themselves considering the situation of the injured animal. In case, a user finds a dead animal he can call for a last ride which on detecting his location provides the determined facilities.

EXPECTED RESULT



Individual Contribution

- ❖ **Utkarsh Kumar, Priyanshu Nagariya, Shivansh Shukla** have proposed the idea of the project by analyzing the problems faced by the animals in their daily life. Recently, a Contagious disease called Lumpy Virus got spreaded in cattles. Also there are many diseases in different animals who are left untreated and also we saw the problems of Abandoned Pets who are ownerless.

So, we came with a project which focuses mostly on the welfare of Stray, lost, abandoned pets so that they can get a better life.

So we are trying to collaborate with Veterinarian doctors as well as Animal NGO and we are trying to bring them on one platform which is **ANIMAL HEALTHCARE**.

We are also working on Project PPT as well as Project Report.

- ❖ **Abhishek Thapliyal** has been working with animal dieticians as well as animal Trainers and gathering information related to Animals to provide better facilities in all the aspects that is medication, adaptation.
- ❖ **Radhika Gour and Piyush Das** have been working on FrontEnd Technologies by using html css javascript for frontend in our website.

Building a FrontEnd for our Animal healthcare website requires steps:-

Define the requirements: The first step is to make the layout/UI for our webpage. Then working on the client side interfacing to make user interaction as smooth as possible.

Design the layout: Once we have decided on the contents needed to be displayed on the website to cater the needs of the user we then design the layout of the webpage which will be displayed to the user.

- Now that the design is created its time to implement it and make it available to the users.

Choose a technology stack: First we have to decide the technologies that should be used. We have decided to use **HTML, CSS3, Javascript**, CSS framework - **Tailwind**, Javascript library - **Reactjs**.

Implement the design: Second step is to implement the designed layout. Using the technologies we then create the website on the frontend which will be made available to the user to see. Ensuring the technical feasibility of UI/UX design, optimizing the application for maximum speed and scalability and assuring all the details are verified before the data is submitted to the backend.

- ❖ **Shivam Kumar along with Shivansh Shukla and Sahil Singh Kushwaha** have been working on Backend Technologies.

Building a backend for our Animal healthcare website requires several steps. Here is a general outline of the process:

Define the requirements: The first step is to define the requirements of the Animal healthcare website. We identify the features we want to implement, such as user registration and login, appointment scheduling, payment processing, and medical records management.

Choose a technology stack: Once we have identified the requirements, we need to choose a technology stack that suits our needs. You can choose Node.js from backend technologies .

Develop the database schema: The next step is to design the database schema. We need to identify the tables and fields required to store the data. For example, We need tables for pet owners, pets, appointments, and medical records.

Build the APIs: After designing the database schema, we need to build the APIs that will allow the frontend to interact with the backend. We need to define the API endpoints, such as /register, /login, /schedule-appointment, /view-medical-records, and so on.

Implement business logic: Once the APIs are built, We need to implement the business logic that will process the requests and perform the required actions. For example, when a user schedules an appointment, We need to check if the time slot is available, create a new appointment record, and send a confirmation email to the user.

Test and debug: After implementing the backend, We need to test it thoroughly to ensure that it meets the requirements and works as expected. We need to identify and fix any bugs or issues that are found during testing.

CONCLUSION

There is a need in society for an ecosystem that can support all animals in a variety of ways in one location. We are attempting to create this environment through web development by enabling users to access all pet-related services. We are also doing our best to address the issue of street animals. Although there are many NGOs working for the welfare of animals in our society, many animals are still missing, so we are building a

bridge to link all the missing animals to the NGO's. We also give users the ability to upload their animal-related products. As a result, both the consumer and the producer can satisfy every requirement.

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