

Operational Gateway for Information Health Stalking for Canines with Illness Analysis

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Abstract: *Electronic health records are used to extract patient's information instantly and remotely, which can help to keep track of patients' due dates for checkups, immunizations, and to monitor health performance. The Health Insurance Portability and Accountability Act (HIPAA) in the USA protects the patient data confidentiality, but it can be used if data is re-identified using 'HIPAA Safe Harbor' technique. Usually, this re-identification is performed manually, which is very laborious and time captivating exertion. Various techniques have been proposed for automatic extraction of useful information, and accurate diagnosis of diseases. Most of these methods are based on Machine Learning and Deep Learning Methods, while the auxiliary diagnosis is performed using Rule-based methods. Pet care project deals with problems faced in pet services. This project will bring together pet owners and people willing to provide services together. This gives pet owners the ability to choose the types of services they need. The Front-end of the project is designed using HTML and CSS language, back end uses JavaScript language, the database using MySQL, and server-side communication using PHP language. Considering all the criteria of the project was split into 5 parts: coding front-end pages, coding back-end according to front-end, designing and writing database, writing server-side code for communication between back-end and database and last were testing.*

The website has three different portal's - user, doctor, and admin. The admin manages the complete website and has control over user and doctor. All the three contains different sub tabs.

It shows all the medical history of the pet. The user can book the appointment through the portal. It gives the remainder of the date schedule for check-up and vaccination. The doctor can provide prescription through portal and user can view and print it online. The pet complete medical history can be accessed through QR code by the user and doctor. The pet parent can analysis the pet health condition by visiting FAQ in website which contain short question-answer related to pet behavioural change which is commonly occurring in pets. This online portal helps the pet owner to take care of pet efficiently and doctor can give proper treatment to pet. This review focuses on recently published papers, which are categorized into Rule-Based Methods, Machine Learning (ML) Methods, and Deep Learning (DL) Methods. Particularly, ML methods are further categorized into Support Vector Machine Methods (SVM), Bayes Methods, and Decision Tree Methods (DT). DL methods are decomposed into Convolutional Neural Networks (CNN), Recurrent Neural Networks (RNN), Deep Belief Network (DBN) and Autoencoders (AE) methods. The objective of this survey paper is to highlight both the strong and weak points of various proposed techniques in the disease diagnosis. Moreover, we present advantage, disadvantage, focused disease, dataset employed, and publication year of each category..

Keywords: Online portal, Data medical tracking, Disease diagnosis, Pet health, Pet, Healthcare

I. INTRODUCTION

Google is the most searched website in the world. It receives approximately 5.6 billion searches a day. Around 30% of people visit Google to make appointments at various places like hospitals, shops, etc. In fact, according to PYMNTS.com, 88% of consumers will research product information before they make a purchase online or in the store. This buying behaviour emphasizes the importance of a website in the success of a business today. Consumers like to be

informed of the products and services that are available. Websites make this information more readily available to them.

According to a study done by the American Pet Product Association (APPA), 68% of people have one or more pets. 90 million of those are dogs and 94 million of those are cats. The emotional attachment and connection that pet owners have with animals are immense. Pets are often thought of as family members. A great example of this is the new trend that has arisen in the last few years, celebrating pet birthdays. Since pets have an important role in the owner's lives, owners want to make sure their furry friends are well taken care of in their absence. Pet owners often search for reputable trainers, groomers, walkers, and part-time sitters. It can be difficult to find all these services in one place.

This project aims to solve the problems faced by pet owners and pet doctors. It helps pet owners find trainers, groomers, walkers, and part-time sitters in their area. Pet owners can search for all the services mentioned on the user portal for their pets on the day and date they want, check profiles, reviews, availability dates for check-up, and how much they charge for different service. As per the pet owner's requirements, he or she can book a service required and wait for the service provider to confirm the availability. Once the service provider confirms his availability, a pet owner can get the check-up done. The owner gets the remainder mail for the check-up. The service provider provides various services. The doctors can also easily check and treat the pet through this project. The previous medical history of pets can easily get through QR code to pet owner as well as doctor.

This online portal helps the pet owner to take care of pet efficiently and doctor can give proper treatment to pet. This project is an exposition on the web application development lifecycle, problems faced, and goals achieved.

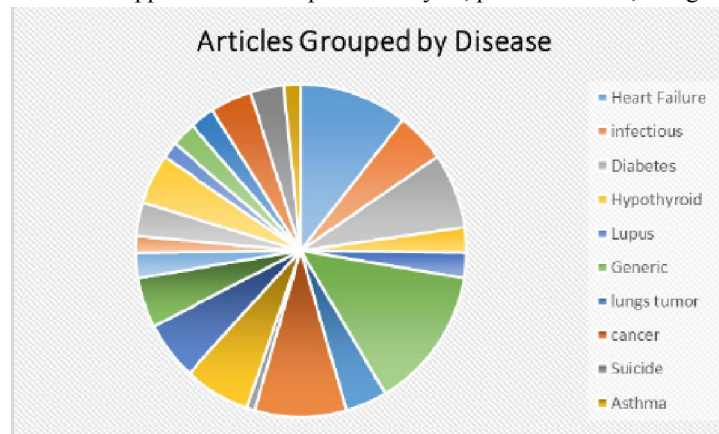


FIGURE 1. Articles Grouped by Concerned Disease

II. LITERATURE REVIEW

Daniele De Guzman, Samuel Mirasol, King Perez, and Grace Lorraine Intal. The given topic bases itself on the implementation of an online-based website application system for animal clinics and pet owners. The impact of Coronavirus-related events paved the way for innovative applications when purchasing goods and acquiring services.

Asih et al. the development of Information Technology is very fast and continuous, companies and organizations have tried to utilize tools and platforms to constantly attract and keep customers for their businesses to survive). One way is the implementation of E-commerce, which is where business activities are being done online and it is usually the purchasing and selling of goods.

Bayaton-Obispo. A good example of this is the e-commerce platform of Shopee, a marketplace where users can browse, shop, and sell with secure payment and logistic support. Small businesses can join at zero cost and they are provided with tools and functions to manage their products and customer relations. Additionally, Live Chat functions in Shopee allows users to communicate at their own time and convenience.

Canvas Solutions In the case of pet industry platforms, early application concepts such as "Pet Portals" are known to provide secure, private pet health websites that have been designed as human health portals where pet parents can

access medical records, emails and online prescriptions. This implies a working relationship between veterinary clinics/grooming stations and the owner in relation to the health and service of the animal.

Leong. Given the rapid development of information communication technology (ICT) and smartphones, smart technologies, and application software have become an extensive and integral part of everyday life. Also, since the system that is most used by many industries is a traditional manual ordering system, where all information and work is recorded manually, which sometimes is also the cause of human error, it is not an efficient and effective work practice anymore. That is why a computerized system will help businesses in their daily routine to have a better daily management operation.

Garavand et al. Many clinics are getting easily crowded and have a long waiting time in order to get their appointment to their specific doctors that are usually using the traditional system for their scheduled appointments. An application schedule can help a lot of patients in order to have scheduled appointments in the clinic that it won't be a hassle to any patients, and they can easily schedule their appointments to their doctors

Rice. The GroomK9 software is another concept. Because most groomers still use the traditional way to record their information in paper or in excel, GroomK9 manages customers, staff and their time and accounts, so it is a software that helps Dog groomer's business manage their day-to-day business. In addition, it was stated in the study that, because the cost must be flexible, fast set-up and able to grow along the line of business, the SOA cloud base is ideal for the grooming industry. Since many Dog Grooming businesses, do not use modern technologies to manage their business), it is considered to understand the age range given within the users of any considerable application. Mobile growth and unified Software as a Service - the based applications can be derived from the internet and easily accessible to those willing to create records and schedule appointments.

M. Chen, Y. Hao, K. Hwang, L. Wang, and L. Wang, Aim of this paper is to improve the savvy treatment using Machine Learning technology to simplify the decision support system. It is a comprehensive paper on the diagnosis of heart disease by monitoring a person's heartbeat. The framework grants you to set the requirements of your pulse. Subsequent to setting these limits an individual can begin to screen the heartbeat and at whatever point a person's heartbeat outperforms a particular level he get an admonition of high pulse and the danger of coronary failure or the heart attack. Author Ahmed M. Alaa and Senthil Kumar Mohan have experimented with a combination of different factors and obtained 88.7% accuracy with a random hybrid forest.

B. Qian, X. Wang, N. Cao, H. Li, and Y.-G. Jiang, This Paper deals with classic supervised binary classification where it is given a number of attributes in the Dataset. The dataset includes Plasma glucose concentration Blood pressure (mm Hg), Body mass index Age (years) etc. A number of elements all with certain features is used to identify people affected by the disease. To tackle the problem, we should investigate the information, do any necessary changes, apply ML algorithm, train a model, check the exhibition of the prepared model and repeat with different algorithms until we locate the most exact outcome. The improvement of software or sites it is critical to recognize the framework necessities by appropriately gathering expected information to connect with provider and customer.

IM. Chen, Y. Ma, Y. Li, D. Wu, Y. Zhang, and C. Youn, This Paper clarifies that there is a need to study and make a framework which will make it simple for an end-user to anticipate the perpetual disease without visiting a doctor or specialist for diagnosis. It is useful and simple to identify the Various Diseases through looking at Symptoms of patient's utilizing different strategies of Machine Learning Models. This section of the paper results the accuracy using different algorithms such as Decision Tree (DT) with accuracy of 90.2%, Random Forest (RF) with accuracy of 95.28% and NB with accuracy of 88.08%. This Paper clarifies that innovation has been further developed in wellbeing industry to give answers for the patients by giving ideas of trained professionals and facilities where to concede and which expert ought to be counselled for the particular disease. The medical care industry gathers information from the patient's data set by applying information mining and Machine Learning

III. ANALYSIS OF PROBLEM

When we visit a veterinary hospital, it need time to get an appointment also it is difficult to carry the pet to the hospital without appointment being confirmed. Secondly, it is difficult to maintain the pet's medical history and sometimes the pet owner forget the check-up dates of their pets. Also, it is difficult to identify the changing behaviour of the pet. So

according to that problem we try to solve the problem of pet parents we try to develop a webpage that gives the previous medical history of the pet and reminder of the dispensary.

The existing system for medical data tracking and disease diagnosis for pets lacks adequate security measures and does not provide a comprehensive view of a pet's medical history. Furthermore, there is no mechanism for owners to receive reminders for dispensary appointments. This results in potential security breaches and incomplete or inaccurate medical records, which can negatively impact pet health outcomes.

To address these issues, we propose developing an online portal that offers enhanced security features and comprehensive medical tracking for pets, including disease diagnosis and dispensary appointment reminders. The expected outcome of this proposed system is to improve pet health outcomes by providing owners with access to accurate and up-to-date medical records and timely reminders for dispensary appointments.

IV. PROPOSED WORK

In the Existing system, the data is in a tabular format, there is no security code provided in the existing system but in our proposed system we provide this security.

The implemented system gives a temporary pet and other pet-related information. The owner can register or log in with a QR code and get the details of their pet. A new feature that we added to our webpage is we set a reminder for owners to the dispensary on time. The expected result of our proposed system is when pet owners scan the QR code they get a history of their pet and get a reminder of the dispensary.

V. OBJECTIVE

- To design an E-Commerce Website application for animal clinics to provide convenience to both pet clinics and pet owners in their service and order transactions during pandemic.
- The main objective of this project is to automate the process of serving towards the welfare of the pets by giving the abandoned pets a place of shelter, care for them with affection.

VI. CONCLUSION AND FUTURE SCOPE

The proposed online portal for data medical tracking for canines with disease diagnosis offers a comprehensive and secure solution for managing pet health. By allowing patients to easily input and track their medical information, such a portal can help to ensure that healthcare providers have access to accurate and up-to-date information about a patient's health status, enabling more effective treatment and better outcomes. In addition, the integration of machine learning algorithms and diagnostic tools can greatly enhance the accuracy and speed of disease diagnosis, improving patient outcomes and reducing the burden on healthcare providers.

The system provides a control panel for doctors and pet parents, managed by the admin with enhanced security features and convenient reminders for dispensary appointments and medication schedules. Pet owners can easily access their pet's medical history, view the appointments, prescriptions given by the doctor and doctors can efficiently manage medication and treatment plans. This system allows for easy analysis of pet health and behavioural response through FAQ which contain short question-answer, which can help improve pet health outcomes. Furthermore, efforts should be made to ensure that the portal is accessible and user-friendly for all patients, including those who may have limited technology skills or resources.

Overall, the system provides a convenient and reliable way to manage pet health, benefiting both pet owners and medical professionals but must be designed and implemented thoughtfully to ensure its success.

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