WESLEYAN UNIVERSITY-PHILIPPINES
Cushman Campus
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College of Engineering and Computer Technology

APPROVED DESIGN PROJECT FOR BSCpE PROGRAM

1st Semester SY 2023 - 2024

APPROVED DESIGN PROJECT:

Design and development of **FurrPaws:** Your Gateway to Pet Wellbeing.

PROPONENTS:

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ABSTRACT

This paper introduces the development of FurrPaws, an Android app revolutionizing how pet lovers access essentials. Beyond locating pet supplies, grooming, and vet care, it integrates real-time location services to connect users with nearby pet businesses, that ensures users to discover nearby pet stores and vet clinics. FurrPaws features include online consultation, tracking pet details, and a pet guard. FurrPaws is more than an app—it's a comprehensive solution fostering a connected, pet-friendly community.

In the development of FurrPaws, the researchers will employ the Waterfall model of the System Development Life Cycle (SDLC) to ensure a systematic and structured approach. The process will begin with thorough analysis, where the specific requirements and functionalities of FurrPaws will be identified. Subsequently, the design phase will outline the visual representations of the application.

This computer engineering research aims to fill a critical gap in understanding pet health through data analysis. The significance extends to stakeholders, researchers, and the community, promising practical applications for Cabanatuan City's improvement. For stakeholders, it offers benefits to industries. Researchers gain insights for Veterinary Clinics, contributing to knowledge. The community benefits from potential societal impacts in Cabanatuan City. Overall, this research serves as a foundation in the evolving landscape of computer engineering, fostering advancements with far-reaching consequences.

INTRODUCTION

In the Philippines, pets are cherished, with over 20 million dogs and 8 million cats making it a pet paradise. Rakuten Insight reports that 67% of homes proudly own a dog, making the country a top dog-loving place. Additionally, 40% of families have adorable cats, and 10% have chirpy birds. Pet expert Blessie Zarzuela notes a steady 6% annual growth in the pet scene, with a promising outlook for the next decade. In terms of pet food sales, Metro Manila leads, capturing 60-70% of the market.

Introducing FurrPaws, an Android app shaking up the pet care game. It's not just for getting pet stuff; it's a vibrant pet community on your phone. FurrPaws uses maps to connect you with nearby pet spots, offering more than just basics like supplies and vet care. With features like online advice, pet tracking, and a pet guard, FurrPaws is not just an app but a companion for pet owners.

FurrPaws introduces an innovative approach that aims to cater to a spectrum of demands, ranging from health information management to pet sitting services and expert consultations. In doing so, it marks a first step toward developing a comprehensive, user-friendly solution for pet owners in the dynamic landscape of the Philippines' pet community.

FurrPaws, crafted with simplicity in mind, is more than just tech—it's practical too. Beyond big cities, it introduces innovative ideas to places like Cabanatuan City, enhancing pet health and simplifying things for owners. In the laid-back Philippines pet scene, FurrPaws emerges as the next big thing, seamlessly merging pets and technology in an easygoing way.

DESIGN PROJECT OBJECTIVES

This study focused on developing an application for overall online health monitoring and consultation of pets, called FurrPaws. The purpose of this application is to track the overall health of pets. Specifically, the project aimed to achieve the following objectives:

1. Create a user-friendly interface of the application.
2. Foster seamless communication between pet owners and veterinarians through secure messaging that allows users to:
    2.1. Online consultation.
    2.2. Schedule appointments.
3. Implement a convenient access to pet medical records and educational resources on pet health and wellness.
4. Implement real-time location services collaborating with local pet businesses, enabling users to easily discover nearby pet stores and vet clinics.

RESPONDENTS

The target respondents for this research are pet owners and veterinarians in Cabanatuan City, Nueva Ecija, who have smartphones and are interested in using a mobile app for managing their pet's healthcare. It is difficult to determine the exact population size of pet owners in Cabanatuan City with smartphones and interest in a pet healthcare app. However, based on the 2020 Philippine Statistics Authority report, there are roughly 81,792 households in the city. Assuming that 50% of these households own pets and 70% of pet owners own smartphones and are interested in a pet healthcare app, we can estimate a population size of approximately:

N = 81,792 households * 50% pet owners * 70% interested app users = 28,627 individuals

This research will utilize stratified random sampling to ensure a representative sample of the target population. This involves dividing the population into subgroups based on certain characteristics, such as pet type and location. Random samples will then be selected from each

stratum proportional to its size in the population. This ensures that the final sample represents the diversity of the target population and allows for valid generalizations about the population based on the research findings.

METHODOLOGY

The methodology will involve a structured approach to software development, specifically employing the System Development Life Cycle (SDLC) throughout the development process to ensure the successful completion of the project. This approach encompasses several key stages, including:

1. **Literature Review -** In-depth study of existing missing persons systems, user interface design principles, and advanced search algorithms.
2. **Requirements Analysis** - Identify and analyze the project requirements meticulously to define the scope and objectives of the system.
3. **System Design and Development -** Utilize wireframing and prototyping techniques to create visual representations of the user interface and system functionality.
4. **Testing -** Implement testing protocols, including usability testing through scenario simulations. Validate the system's functionality, reliability, and performance to ensure a seamless user experience.
5. **Deployment -** Deployment of strategies that emphasize scalability as well as guidelines for the application's usage.
6. **Assessment -** Conduct comprehensive assessments using a combination of surveys, interviews, and real-time data analysis to gather user feedbacks.

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