



## University of Caloocan City – North Campus

Biglang Awa St. Grace Park East. Caloocan City

### Computer Studies Department



#### PROPOSED TITLE: VALBI– A Business Intelligence-Driven Veterinary Clinic Management

##### Description:

**VALBI** is a **Veterinary Clinic Management System** developed to digitalize and modernize veterinary clinic operations. It is a generic system and integrates essential features such as automated reminders, scheduling, digital patient records, inventory tracking, an **AI-powered chatbot**, and **Business Intelligence** dashboards. The system also introduces an **Interactive Client Engagement module** with loyalty rewards to strengthen client participation, Predictive Analysis to forecast seasonal illnesses and vaccination demands, and a Geolocation feature to help pet owners easily locate and access the clinic. By reducing manual workload, enhancing client interaction, and providing data-driven insights, VALBI aims to streamline operations and improve the overall efficiency of veterinary practices.

##### General Objective:

To develop a business intelligence-driven veterinary clinic management system that streamlines appointment scheduling, digitizes patient history and inventory tracking, enhances client engagement through an interactive rewards system, and provides actionable insights through a BI dashboard.

##### Specific Objectives:

- To digitize appointment scheduling and provide automated reminders to pet owners.
- To digitize patient records and vaccination histories for easier access and retrieval.
- To implement smart inventory tracking with expiry notifications and stock alerts.
- To provide a business intelligence dashboard that generates insights on clinic performance, seasonal trends, and client activity.
- To offer an interactive rewards system that increases client engagement and retention.
- To integrate predictive analysis for forecasting illnesses and vaccination demands.
- To improve client communication through digital notifications and online record access.

##### For Clinic Owners:

- To streamline clinic operations by digitalizing appointment scheduling, record management, and inventory tracking.
- To empower the owner with a business intelligence dashboard that provides insights on clinic performance, seasonal illness trends, and client engagement.
- To enable data-driven decisions that improve profitability and enhance customer satisfaction.



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#### For Veterinarians:

- To benefit from accurate and accessible digital records that support informed decision-making and continuity of care.
- To reduce overlaps and waiting times through automated scheduling and reminders, improving workflow efficiency.
- To ensure the timely availability of medicines and vaccines with inventory management.
- To gain insights into patient trends through business intelligence tools, enabling veterinarians to focus more on delivering quality care.

#### For Staff:

- To achieve faster and more accurate inventory control with automated alerts for low stock and upcoming expirations.
- To reduce administrative workload so staff can focus on providing quality veterinary care.
- To lessen time spent on paperwork and manual tracking.

#### For Pet Owners:

- To enjoy improved convenience through automated appointment reminders, digital vaccination records, and access to an AI-powered chatbot for pet care inquiries.
- To encourage continued engagement with a gamified CRM that offers loyalty points and redeemable vouchers.
- To foster trust and enhance the overall client experience.

#### Scope:

- VALBI sends automated email reminders for upcoming appointments and vaccinations to pet owners.
- VALBI allows pet owners to book and manage online appointments, enabling staff to organize schedules and reduce booking conflicts.
- The system integrates inventory management to monitor medicine and vaccine stocks, track expirations, and send restocking alerts.
- Offers an *AI-powered chatbot* powered by Chatbase to respond to common pet care inquiries instantly.



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- Features a business intelligence dashboard that presents clinic performance insights and patient trends.
- Uses AI-driven predictive analysis to forecast seasonal illnesses and vaccination demands based on clinic data.
- Offers a voucher redemption via the collection of points through the gamified system
- Offers a *daily rewards program* and a *separate gamified system* that allows points to be earned and redeemed for clinic-exclusive vouchers.
- Includes a geolocation feature that enables pet owners to locate the clinic through an embedded map or GPS service

### Delimitation:

- The AI Chatbot only provides responses based on licensed Medical Books and licensed Veterinarians' expertise, but this does not replace or substitute professional veterinary diagnostics or treatment.
- The system focusing on Gamified CRM is limited to voucher generations and validations, and no payment processing or integration of external payment gateways.
- The redeemed voucher is strictly for use within the clinic and cannot be sold, traded, or exchanged for real-life goods or services.
- The system digitizes pets' records but does not automatically generate prescriptions. Veterinarians are responsible for manually entering medical recommendations.

### Products / Services : - Features

- Intelligent Dashboards
- AI Chatbot
- Inventory System
- Scheduling and Record System
- Automated Reminders
- Clinic Finder
- Interactive CRM

### Technology/API:

- **PHPMailer API:** Includes the user's email for account authentication and verification.
- **Power BI :** For Reporting and Forecasting
- **Google Calendar API:** tracks scheduled appointments.
- **Chatbase API:** AI-powered chatbot for customer assistance.



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- **Google Cloud Storage API:** To back up and secure data
- **MySQL:** main database for recording customers data

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