

**Executive report**

**“HealthPet”**

***HP2024***

***Date:12/09/2024***

**Contents**

[**Details 3**](#_heading=h.1fob9te)

[**1. Introduction 4**](#_heading=h.3dy6vkm)

[**2. Case Description 4**](#_heading=h.dwz3555mb41i)

[**3. Problem Identification 4**](#_heading=h.rpy8cpd82u9a)

[**4. Root Cause Analysis 4**](#_heading=h.2zcvni3hts2p)

[**5. Proposed Solutions 5**](#_heading=h.ghjmbt1lpuu0)

[**6. Tools and Resources 5**](#_heading=h.vf0zhoo8uesn)

[**7. External Factors Supporting Development 5**](#_heading=h.un8lthksi7k3)

[**8. Implementation Plan 5**](#_heading=h.oicwxfx70uzv)

[**9. Project Risks 5**](#_heading=h.c9z5x0knfcjr)

[**10. Expected Outcomes 6**](#_heading=h.fnucshjcspj)

# Details

About the project

| Organization | Duoc UC |
| --- | --- |
| Section | 001-D |
| Project | HealthPet |
| Start date | 17-08-2024 |
| Finish date | 21-12-2024 |
| Sponsor | Duoc uc |
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# 1. Introduction

HealthPet is a project to develop a comprehensive platform for a veterinary clinic, designed to streamline internal operations and enhance customer experience. The platform integrates modules for food sales, appointment management, inventory control, hospitalizations, and medical services. The aim is to optimize sales, product management, and hospital resources, while improving customer interaction through online appointment scheduling and payment tracking.

# 2. Case Description

The case focuses on a veterinary clinic facing operational challenges in managing appointments, hospitalizations, inventory, and payments. The lack of a centralized system leads to inefficiencies, affecting both customer service and internal management. The project will adopt the Scrum methodology, which allows for incremental development and continuous collaboration with clients, ensuring adaptability to changing needs.

# 3. Problem Identification

Several key issues were identified:

* **Appointment Management**: Lack of optimization leads to scheduling conflicts.
* **Module Integration**: Sales, inventory, and service modules are disconnected, creating data inconsistencies.
* **Inventory Errors**: Poor inventory tracking leads to stock shortages and excesses.
* **Debt and Payment Tracking**: Inadequate financial management creates confusion in handling customer payments.
* **Customer Communication**: Delayed notifications affect client relationships and increase appointment cancellations.

# 4. Root Cause Analysis

The problems arise from several internal factors:

* Lack of automation in appointment and inventory management.
* No integration between different system modules.
* Manual processes for updating inventory.
* Poor communication mechanisms with clients.
* Rapid growth without technological adaptation.

# 5. Proposed Solutions

To address these issues, the following solutions are proposed:

* **Appointment and Hospitalization Management**: Implement a calendar-based system that allows administrators to manage appointments and hospitalizations efficiently, with automated notifications to clients.
* **Module Integration**: Develop a platform that synchronizes sales, inventory, and veterinary services, ensuring real-time data updates across all modules.
* **Inventory Tracking**: Create an automated inventory management system that adjusts stock levels in real-time and sends alerts when restocking is needed.
* **Financial Management**: Implement a system to automatically record client debts and payments, with reminders for overdue amounts.
* **Client Communication**: Establish an automated notification system for appointment confirmations, changes, and payment reminders.

# 6. Tools and Resources

The project requires computers for local server execution and development tools. XAMPP will configure the local server, with Visual Studio Code as the code editor. MySQL or SQL Server will manage data, Trello will track tasks, and Git will handle version control. Hosting services compatible with PHP and PHPMailer for email notifications will be used. Comprehensive project documentation will be maintained.

# 7. External Factors Supporting Development

Online resources, tutorials, and forums will aid problem-solving and learning. PHP frameworks like Laravel will accelerate development. XAMPP provides a fast local environment for controlled testing and development.

# 8. Implementation Plan

The project will be implemented in three phases:

* **Phase 1: Documentation and Planning**: Initial analysis of problems, documenting requirements, and creating a detailed work plan.
* **Phase 2: Development and Testing**: Build and test the functionalities, including inventory, sales, appointments, and hospitalizations.
* **Phase 3: Closure and Validation**: Deploy the system, train staff, monitor performance, and ensure all objectives are met.

# 9. Project Risks

**Schedule delays:**

* **Description**: There may be delays due to unforeseen issues during development or the complexity of integrations.
* **Mitigation**: Use an agile methodology that allows for quick adjustments and contingency planning in each sprint. Conduct regular review to identify and address issues early

**Security Issues**

* **Description:** Vulnerabilities in the platform could compromise sensitive user data and transactions.
* **Mitigation:** Implement secure development practices, conduct thorough security testing, and regularly apply updates and patches (understand security integrated into the framework).

**Inadequate Service Integration**

* **Description:** External services, such as email delivery and hosting, may face integration issues.
* **Mitigation:** Perform early integration testing and use reliable third-party services with adequate support. Thoroughly document the configurations and integration procedures.

**Lack of Adaptation to Changing Requirements**

* **Description:** Changes in customer requirements may affect development and planning.
* **Mitigation:** Maintain constant communication with the client, conduct review meetings, and adjust the project scope and sprints as necessary.

**Insufficient Team Training**

* **Description:** The team may face difficulties if not adequately trained in the tools and technologies used.
* **Mitigation:** Provide proper training and learning resources before the project begins and throughout development.

# 10. Expected Outcomes

The system will lead to better inventory control, minimizing stock shortages and overstocking. Automation will streamline sales and financial management, reducing manual work and improving accuracy. Improved appointment and resource management will reduce wait times and enhance customer satisfaction. A more transparent debt and payment system will improve cash flow and client relationships.