

ANIMALOG

SMART PET HEALTH PLATFORM

NAME : CHAITHANYA D
USN : 24SUPMCAGL015
SAPTHAGIRI NPS UNIVERSITY

TABLE OF CONTENT

CHAPTER NO	DESCRIPTION	PAGE NO
1	Introduction	1-2
2	Problem Statement	3
3	Objectives	4
4	System Analysis 4.1 Existing System 4.2 Limitations of Existing System 4.3 Proposed System	5
5	System Design 5.1 Architecture	6
6	Database Design	7-10
7	Module Description	11
8	Implementation Details	12
9	System Workflow	13
10	Testing and Results	14-19
11	Future Enhancement and Conclusion	20

CHAPTER 1

INTRODUCTION

Pet healthcare has become an increasingly important aspect of modern society as more families welcome pets into their homes and consider them an integral part of their daily lives. With the growing awareness of pet health, nutrition, and preventive care, veterinary services have also expanded significantly. However, despite the advancement of medical technologies, many pet owners and veterinary clinics still rely heavily on outdated, manual, and unorganized methods for maintaining pet health records. These traditional systems often involve paper files, handwritten prescriptions, physical vaccination cards, and informal communication channels such as phone calls or in-person visits. As a result, the process of managing and accessing pet health information becomes tedious, inconsistent, and vulnerable to errors.

In real-world scenarios, pet owners frequently misplace medical files, forget scheduled vaccinations, or fail to maintain a structured health history for their pets. This leads to issues such as incomplete medical information, delayed treatments, and poor decision-making during veterinary consultations. Veterinarians, on the other hand, face challenges in retrieving past medical records, verifying vaccination timelines, managing numerous appointments manually, and maintaining proper documentation of treatment procedures. A lack of digital integration also limits communication between pet owners and veterinarians, leading to confusion, misunderstandings, and inefficiencies in delivering timely healthcare services.

The rapid expansion of digital technology offers an opportunity to overcome these limitations. Many industries such as banking, education, and human healthcare have already adopted centralized digital systems to improve efficiency and ensure accessibility. However, the pet healthcare sector remains relatively underserved in terms of structured digital platforms that can systematically manage pet information. Recognizing this gap, the need for a comprehensive, user-friendly, and secure digital solution for pet health management has become more important than ever.

AnimaLog – Smart Pet Health Platform is developed to address these critical gaps by providing an end-to-end digital solution for pet healthcare management. It is a full-stack web-based application built using Java, Spring Boot, Thymeleaf, and MySQL. The platform centralizes all essential pet health information in one place and provides separate role-based dashboards for Pet Owners, Veterinarians, and Administrators. With the help of secure authentication, intuitive navigation, and structured data handling, AnimaLog enables smooth, error-free, and reliable access to health information.

The Pet Owner dashboard allows users to create and manage profiles for multiple pets, enter basic details, upload health reports, monitor vaccination schedules, and book appointments with veterinarians. The system ensures that pet owners no longer rely on physical files or manual reminders, as all records are stored digitally in the database with easy retrieval and reminder features. Similarly, the Veterinarian dashboard is designed to help doctors manage appointment schedules, view pet details and past medical history, and update treatment or prescription notes. This not only saves time but also enhances the quality of veterinary care provided.

From a technical and academic perspective, AnimaLog serves as a practical demonstration of implementing a full-stack Java application with integrated backend logic, database design, and responsive frontend interfaces. It applies modern software engineering principles such as modular design, layered architecture, secure authentication, and data validation. The use of Spring Boot simplifies server-side development, while MySQL ensures reliable and scalable database storage. Thymeleaf templates allow dynamic content rendering, creating an interactive and visually clear user experience. The project's structure and implementation closely follow industry standards, making it valuable for academic learning and real-world application.

Moreover, the system promotes long-term digital transformation in the pet healthcare ecosystem. By reducing dependency on manual record-keeping, improving accessibility to medical data, and ensuring transparent communication between pet owners and veterinarians, AnimaLog can greatly enhance the health outcomes and wellbeing of pets. It addresses the fundamental problems of accessibility, continuity, and reliability of pet healthcare information.

In conclusion, the introduction of AnimaLog represents a significant step toward modernizing the pet healthcare sector. It bridges the existing gap between pet owners and veterinary care providers by offering a reliable, secure, and efficient digital platform. Its user-friendly interface, powerful backend engine, and well-structured database make it a comprehensive solution for both daily use and long-term healthcare management. The platform contributes not only to improved pet health monitoring but also to the digital evolution of veterinary services. As technology continues to play a central role in everyday life, AnimaLog positions itself as a progressive and impactful tool for efficient pet healthcare management.

CHAPTER 2

PROBLEM STATEMENT

Pet healthcare management is a critical aspect of ensuring the overall wellbeing, longevity, and quality of life for companion animals. However, despite advancements in veterinary medicine, the methods used for maintaining pet health records and managing healthcare interactions remain largely outdated and inefficient. Traditional systems rely heavily on manual processes such as paper-based medical files, handwritten prescriptions, physical vaccination cards, and unstructured appointment booking methods. These approaches are prone to human error, difficult to maintain, and often lead to misplaced, incomplete, or inaccessible medical information.

Pet owners frequently struggle to track vaccination schedules, remember upcoming appointments, or maintain a consistent medical history for their pets. Important documents such as lab reports, diagnosis notes, and medical prescriptions are often stored in different places or forgotten entirely. As a result, the continuity of care is compromised, making it difficult for veterinarians to understand a pet's complete medical background during consultations.

From the veterinarian's perspective, managing large volumes of patient data manually is time-consuming and inefficient. Without a centralized digital database, retrieving past health records becomes challenging, leading to delays in diagnosis and treatment. Appointment scheduling, when managed through phone calls or handwritten schedules, often results in overlapping bookings, miscommunication, or inaccurate records of visitation history. Moreover, there is no streamlined mode of communication between pet owners and veterinarians for sharing reports, receiving reminders, or updating medical details.

These inefficiencies collectively create several issues:

- Inability to access accurate and complete medical history when required
- Risk of missed vaccinations and medications due to lack of reminders
- Poor coordination between owners and veterinarians
- Dependence on physical documentation that can be easily lost or damaged
- Absence of real-time information on appointments and treatment updates
- Difficulty in managing multiple pets with separate records

In an era where digital solutions are transforming various industries, the pet healthcare sector still lacks an integrated, user-friendly platform that can seamlessly handle medical records, appointments, and veterinarian interactions. There is a clear need for a comprehensive digital system that addresses the limitations of manual methods and provides a more efficient, reliable, and accessible approach to managing pet healthcare.

CHAPTER 3

OBJECTIVES

The main objectives of ANIMALOG are:

The primary objective of the **AnimaLog – Smart Pet Health Platform** is to develop a unified and digital solution that simplifies pet healthcare management for pet owners, veterinarians, and administrators. The system aims to eliminate the drawbacks of manual record-keeping and ensure efficient, accurate, and accessible health data. The objectives of the project are structured into clear and comprehensive points to provide better clarity and alignment with academic standards.

Primary Objectives

1. **To develop a centralized digital system** for maintaining complete pet health records, including medical history, vaccination details, prescriptions, and uploaded health reports.
2. **To implement secure user authentication** with role-based access control for Pet Owners, Veterinarians, and Admins, ensuring data privacy and controlled access.
3. **To enable online appointment scheduling**, allowing pet owners to book consultations easily and veterinarians to manage their availability.
4. **To automate vaccination and health reminders**, ensuring that pet owners do not miss important preventive care schedules.
5. **To provide digital upload and storage of medical reports**, eliminating dependency on physical documents and ensuring easy retrieval.

Secondary Objectives

1. **To offer a user-friendly and intuitive interface** that simplifies navigation and improves the overall experience for all users.
2. **To design and implement a scalable database structure** using MySQL for efficient data storage, retrieval, and management.
3. **To apply modern software engineering approaches**, such as layered architecture, MVC pattern, and modular design, to ensure maintainability and extensibility.
4. **To demonstrate full-stack development skills** using Java, Spring Boot, Thymeleaf, and JPA/Hibernate for backend and frontend integration.
5. **To ensure reliability and performance** through validation mechanisms, optimized queries, secure authentication, and exception handling.
6. **To build a system that can support future enhancements**, such as mobile applications, AI-based health predictions, cloud integration, and real-time chat features.

CHAPTER 4

SYSTEM ANALYSIS

4.1 Existing System

The traditional pet healthcare management system is largely manual and paper-based. It involves physical files, handwritten records, and unstructured communication between pet owners and veterinarians.

Key Characteristics of the Existing System

1. Medical records are stored in physical files or notebooks.
2. Vaccination dates are tracked manually by pet owners.
3. Appointments are booked through phone calls or direct visits.
4. Veterinarians rely on handwritten prescriptions.
5. Past medical records are not easily accessible during follow-up visits.
6. No centralized storage for reports such as X-rays, test results, or prescriptions.
7. High dependency on human memory and manual tracking.

4.2 Limitations of the Existing System

The existing manual system creates several challenges and inefficiencies for both pet owners and veterinarians.

Major Limitations

1. **Risk of Lost or Damaged Records:** Physical files and prescriptions can be misplaced or deteriorate over time.
2. **Inaccurate or Incomplete Data:** Manual records often lead to inconsistent or missing information.
3. **No Automatic Reminders:** Pet owners may forget vaccination dates or routine checkups.
4. **Difficulty in Managing Multiple Pets:** Tracking separate records for each pet becomes confusing.
5. **Manual Appointment Scheduling:** Leads to overlapping appointments and miscommunication.
6. **Limited Accessibility:** Medical history is not available instantly when needed.

4.3 Proposed System

The proposed **AnimaLog Smart Pet Health Platform** overcomes the limitations of the manual system through digitization, automation, and structured data management.

Features of the Proposed System

1. **Centralized Digital Database:** All pet records are stored securely in one place.
2. **Role-Based Dashboards:** Separate interfaces for Pet Owners, Veterinarians, and Admins.
3. **Secure Authentication:** Login system with encrypted passwords and access control.
4. **Online Appointment Booking:** Allows owners to schedule visits and vets to manage slots.
5. **Digital Report Uploads:** Medical records, test results, and prescriptions can be uploaded digitally.
6. **Vaccination Reminder System:** Sends automated alerts for upcoming vaccinations or checkups.
7. **Quick Access to Medical History:** Improves diagnosis efficiency for veterinarians.
8. **User-Friendly Interface:** Simplifies navigation for all users.
9. **Scalable Architecture:** Designed for easy future upgrades and additional features.
10. **Improved Communication:** Streamlined interaction between pet owners and vets through organized data.

CHAPTER 5

SYSTEM DESIGN

5.1 Architecture

Model

- Represents the data layer of the application.
- Contains JPA entities such as:
 - Users
 - Pets
 - Veterinarians
 - Appointments
 - Vaccination Records
 - Health Reports
- Handles database mapping and data storage logic.

View

- Built using **Thymeleaf templates**.
- Provides dynamic web pages for:
 - Login & Registration
 - Dashboards (Owner, Vet, Admin)
 - Pet details
 - Appointments
 - Report uploads
- Displays data received from controllers.

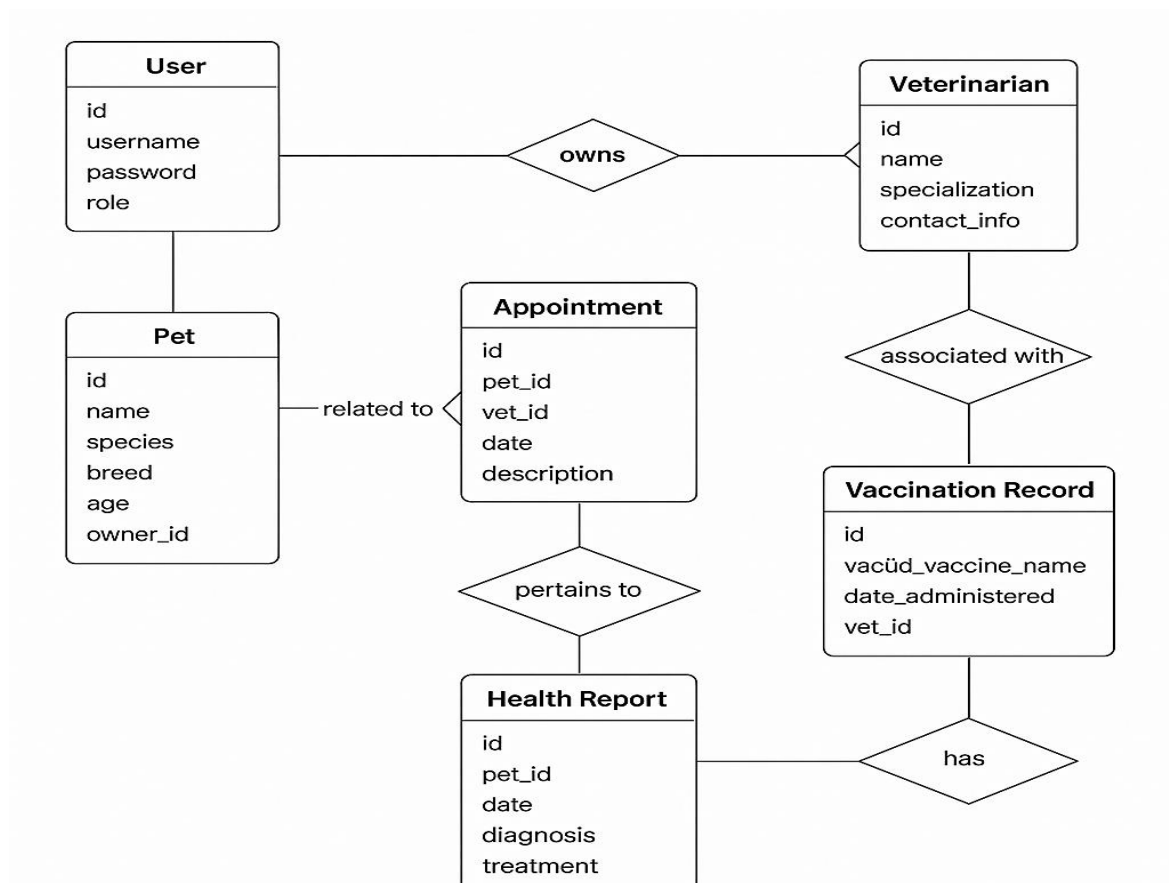
Controller

- Developed using **Spring Boot controllers**.
- Manages all HTTP requests and responses.
- Handles core operations like:
 - User authentication
 - Pet management
 - Appointment booking

- Report handling
- Connects the View with the Model.

Database

- Uses **MySQL** for storing persistent data.
- Stores structured information such as:
 - User profiles
 - Pet records
 - Appointment data
 - Vaccination schedules
 - Uploaded reports
 - Veterinarian details



CHAPTER 6

DATABASE DESIGN

Database Name: animalog_db

Tables:

```
CREATE DATABASE IF NOT EXISTS animalog_db
```

```
    CHARACTER SET utf8mb4
```

```
    COLLATE utf8mb4_unicode_ci;
```

```
USE animalog_db;
```

```
-- 1. USERS TABLE
```

```
CREATE TABLE users (
```

```
    user_id BIGINT AUTO_INCREMENT PRIMARY KEY,
```

```
    full_name VARCHAR(100) NOT NULL,
```

```
    email VARCHAR(100) NOT NULL UNIQUE,
```

```
    password VARCHAR(255) NOT NULL,
```

```
    phone VARCHAR(15),
```

```
    role ENUM('OWNER', 'VET', 'ADMIN') NOT NULL DEFAULT 'OWNER',
```

```
    created_at DATETIME DEFAULT CURRENT_TIMESTAMP,
```

```
    is_active BOOLEAN DEFAULT TRUE,
```

```
    INDEX idx_email (email)
```

```
) ENGINE=InnoDB;
```

```
-- 2. PETS TABLE (Simplified)
```

```
CREATE TABLE pets (
```

```
    id BIGINT AUTO_INCREMENT PRIMARY KEY,
```

```
    name VARCHAR(50) NOT NULL,
```

```

species VARCHAR(50) NOT NULL,
breed VARCHAR(100),
date_of_birth DATE,
gender ENUM('MALE', 'FEMALE', 'UNKNOWN'),
weight DECIMAL(5,2),
owner_name VARCHAR(100) NOT NULL,
owner_phone VARCHAR(15),
microchip_id VARCHAR(50),
status ENUM('ACTIVE', 'INACTIVE') DEFAULT 'ACTIVE',
created_at DATETIME DEFAULT CURRENT_TIMESTAMP,
INDEX idx_owner_name (owner_name),
INDEX idx_species (species)
) ENGINE=InnoDB;

```

-- 3. APPOINTMENTS TABLE (Simplified)

```

CREATE TABLE appointments (
    id BIGINT AUTO_INCREMENT PRIMARY KEY,
    pet_id BIGINT NOT NULL,
    appointment_datetime DATETIME NOT NULL,
    purpose VARCHAR(200) NOT NULL,
    veterinarian_name VARCHAR(100) NOT NULL,
    status ENUM('SCHEDULED', 'COMPLETED', 'CANCELLED') DEFAULT 'SCHEDULED',
    notes TEXT,
    FOREIGN KEY (pet_id) REFERENCES pets(id) ON DELETE CASCADE,
    INDEX idx_pet_date (pet_id, appointment_datetime)
) ENGINE=InnoDB;

```

-- 4. MEDICAL RECORDS TABLE (Consolidated)

```

CREATE TABLE medical_records (

```

```

id BIGINT AUTO_INCREMENT PRIMARY KEY,
pet_id BIGINT NOT NULL,
visit_date DATE NOT NULL,
record_type ENUM('CHECKUP', 'VACCINATION', 'TREATMENT', 'EMERGENCY') NOT
NULL,
veterinarian_name VARCHAR(100) NOT NULL,
diagnosis TEXT,
treatment TEXT,
medication VARCHAR(200),
cost DECIMAL(10,2),
notes TEXT,
FOREIGN KEY (pet_id) REFERENCES pets(id) ON DELETE CASCADE,
INDEX idx_pet_date (pet_id, visit_date)
) ENGINE=InnoDB;

```

-- 5. VACCINATIONS TABLE (Minimized)

```

CREATE TABLE vaccinations (
id BIGINT AUTO_INCREMENT PRIMARY KEY,
pet_id BIGINT NOT NULL,
vaccine_name VARCHAR(100) NOT NULL,
vaccination_date DATE NOT NULL,
next_due_date DATE NOT NULL,
veterinarian_name VARCHAR(100) NOT NULL,
batch_number VARCHAR(50),
FOREIGN KEY (pet_id) REFERENCES pets(id) ON DELETE CASCADE,
INDEX idx_pet_due (pet_id, next_due_date)
) ENGINE=InnoDB;

```

-- 6. PRESCRIPTIONS TABLE (Simplified)

```

CREATE TABLE prescriptions (
    id BIGINT AUTO_INCREMENT PRIMARY KEY,
    pet_id BIGINT NOT NULL,
    medication_name VARCHAR(100) NOT NULL,
    dosage VARCHAR(100) NOT NULL,
    frequency VARCHAR(100) NOT NULL,
    start_date DATE NOT NULL,
    end_date DATE NOT NULL,
    prescribed_by VARCHAR(100) NOT NULL,
    instructions TEXT,
    status ENUM('ACTIVE', 'COMPLETED', 'DISCONTINUED') DEFAULT 'ACTIVE',
    FOREIGN KEY (pet_id) REFERENCES pets(id) ON DELETE CASCADE,
    INDEX idx_pet_active (pet_id, status, end_date)
) ENGINE=InnoDB;

```

Result Grid

Filter Rows:

Edit:

Export/Import:

Wrap Cell Content:

	user_id	created_at	email	full_name	is_active	password	phone	role
▶	1	2025-11-11 10:05:48.141620	chai@gmail.com	chai	1	\$2a\$10\$9DmsSQ7Uv.rULLqgmba4MudZqlGTVA...	9087654321	OWNER
	2	2025-11-11 16:20:56.243811	siri@gmail.com	Siri	1	\$2a\$10\$2S9Y2zRU.PjpNtgOQVdW.1OLUkMwvZr...	9087654321	OWNER
	3	2025-11-11 16:32:49.991169	sam@animalog.com	Sam	1	\$2a\$10\$VMhKtygB3tKdHDWQJKl.5eJorvIMdjaX...	9432167890	VET
	4	2025-11-11 16:53:22.892846	tanya@gmail.com	Tanya	1	\$2a\$10\$gccDa8f6glUFMKwkd2w2uihgQ6pH7IV...	7890654321	OWNER
	5	2025-11-11 21:54:23.795671	siddu@gmail.com	Siddu	1	\$2a\$10\$TnngTZAkKUaaxoBVslt.j.TCb2rKhp53J...	6789054321	OWNER
	6	2025-11-12 07:57:44.225985	nisarga@animalog.com	Nisarga	1	\$2a\$10\$mIQgz3wIWCgEHrTqsXlgEux.xn/UUSU...	9876543210	VET
	7	2025-11-12 09:19:59.783949	siri@animalog.com	Siri	1	\$2a\$10\$WEEj8UmI3Py4xJb1o9qBjuh6Kn/02oq...	6789054321	VET
	8	2025-11-12 16:50:13.686881	gana@animalog.com	Gana	1	\$2a\$10\$snSV6PAz4.uw9tIxSOVbdhu/T.YjVR2yzk...	4932167890	VET
✱	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

Result Grid

Filter Rows:

Export/Import:

Wrap Cell Content:

	id	breed	created_at	date_of_birth	gender	microchip_id	name	owner_name	owner_phone	species	status	weight	image_url
▶	1	Golden Retriever	2025-11-12 16:48:47.481865	2022-07-07	MALE	9812345678901230	Candy	Tanya	7890654321	Dog	ACTIVE	10.00	/uploads/pet-imag
	2	Pug	2025-11-12 07:43:24.069080	2024-08-12	MALE	67890543215676	Chinku	chai	9087654321	Dog	ACTIVE	6.00	/uploads/pet-imag
	3	Maine Coon	2025-11-13 04:06:18.366625	2025-07-16	FEMALE	5432167890123	Luna	Tanya	7890654321	Cat	ACTIVE	4.00	/uploads/pet-imag
	4	Parrotlet	2025-11-12 10:17:30.652514	2025-01-12	FEMALE	5432167890076	Anki	Siddu	6789054321	Parrot	ACTIVE	0.34	/uploads/pet-imag
	5	Parrotlet	2025-11-13 04:05:40.347385	2025-09-15	FEMALE		Anki	Tanya	7890654321	Parrot	ACTIVE	0.05	/uploads/pet-imag
	6	Maltese	2025-11-13 05:19:33.152391	2025-04-02	MALE		Maxi	Tanya	7890654321	Dog	ACTIVE	5.00	/uploads/pet-imag
*	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

Result Grid

Form Editor

Field Types

CHAPTER 7

MODULE DESCRIPTION

The **AnimaLog – Smart Pet Health Platform** is divided into multiple modules, each handling a specific functional requirement of the system. These modules ensure separation of responsibilities, ease of development, and better maintainability. Below is the detailed description of each module.

1. User Management Module

This module is responsible for handling all user-related activities in the system.

Functions:

- Allows users to register as **Pet Owner**, **Veterinarian**, or **Admin**.
- Manages secure login and logout using Spring Security.
- Handles role-based redirection to respective dashboards.
- Stores user credentials and personal details in the database.

2. Pet Management Module

This module enables pet owners to maintain detailed profiles of their pets.

Functions:

- Add, update, view, and delete pet information.
- Store details such as name, breed, gender, age, and medical notes.
- Supports managing multiple pets under one user.
- Links each pet to its owner in the database.

3. Appointment Management Module

This module enables scheduling and managing veterinary appointments.

Functions:

- Pet owners can book appointments with available veterinarians.
- Veterinarians can accept, reject, or reschedule appointments.
- Displays appointment status such as "Pending", "Approved", "Completed".
- Helps in avoiding manual scheduling conflicts through real-time data.

4. Veterinarian Management Module

This module manages veterinarian profiles and availability.

Functions:

- Stores vet details such as specialization, experience, and contact info.
- Allows vets to set available days and visiting hours.
- Provides veterinarians access to pet history before consultation.
- Helps improve communication and transparency with owners.

5. Vaccination & Medical Record Module

This module ensures proper tracking and management of pet vaccinations and medical reports.

Functions:

- Maintains vaccination schedules and due dates.
- Sends reminders for upcoming vaccinations.
- Allows uploading of medical reports (PDF, images).
- Helps veterinarians access past medical history instantly.

6. Health Report Module

This module stores and displays digital health documents of pets.

Functions:

- Upload lab reports, prescriptions, and examination notes.
- Store each report with date and description.
- Allows vets to review historical data quickly during consultations.
- Eliminates dependency on physical documents.

CHAPTER 8

IMPLEMENTATION DETAILS

Frontend Implementation (Thymeleaf + HTML + CSS)

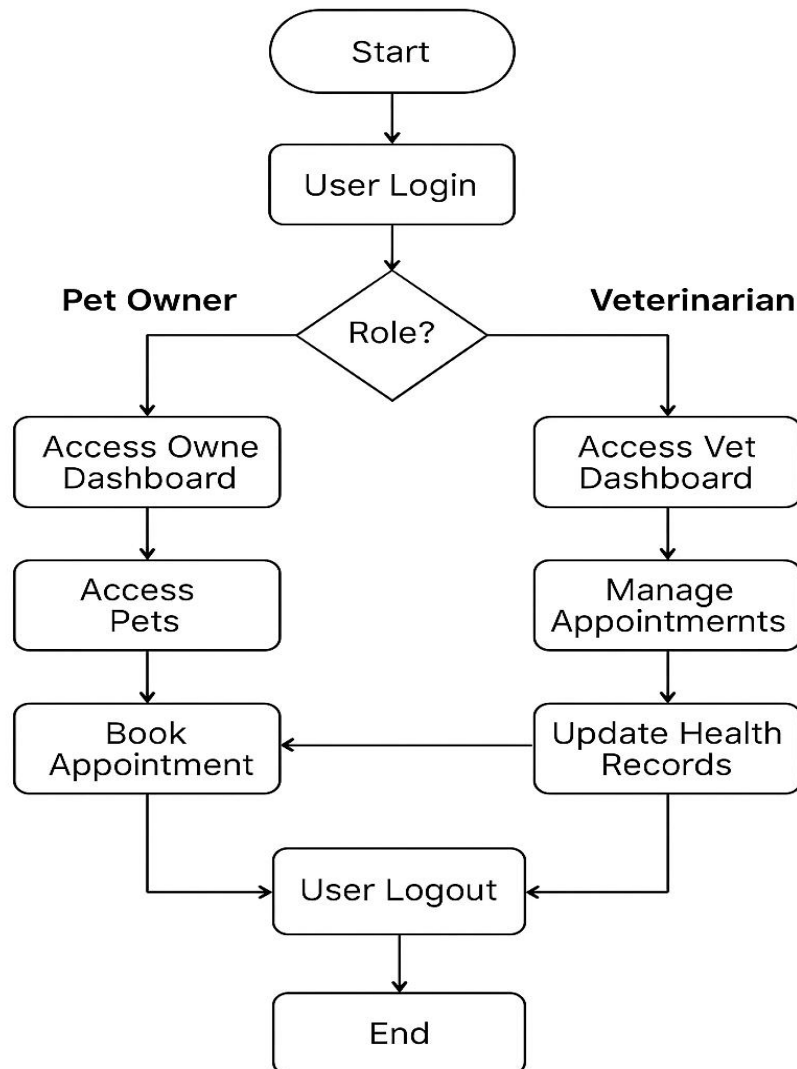
- Developed using **Thymeleaf templates** for dynamic HTML rendering.
- Uses **HTML5, CSS3, Bootstrap, and JavaScript** for UI design and responsiveness.
- Provides separate dashboards for **Owner, Veterinarian, and Admin**.
- Forms created for login, registration, adding pets, booking appointments, and uploading reports.
- Displays dynamic data received from controllers (pets, appointments, reports).
- Implements error messages, alerts, and conditional rendering using Thymeleaf.
- Ensures mobile-friendly and clean UI using Bootstrap components.

Backend Implementation (Java + Spring Boot)

- Follows **MVC architecture** for separation of concerns.
- Spring Boot controllers handle all **HTTP requests and responses**.
- Service layer performs business logic like:
 - Appointment validation
 - Report handling
 - Vaccination reminders
 - User role management
- JPA repositories perform **CRUD operations** on MySQL database.
- Entities represent tables such as **User, Pet, Appointment, Veterinarian, Vaccination, HealthReport**.
- Implements **Spring Security** for authentication and role-based access.
- Uses **BCrypt** for secure password encryption.
- Includes exception handling and input validation to ensure smooth functioning.

CHAPTER 9

SYSTEM WORKFLOW

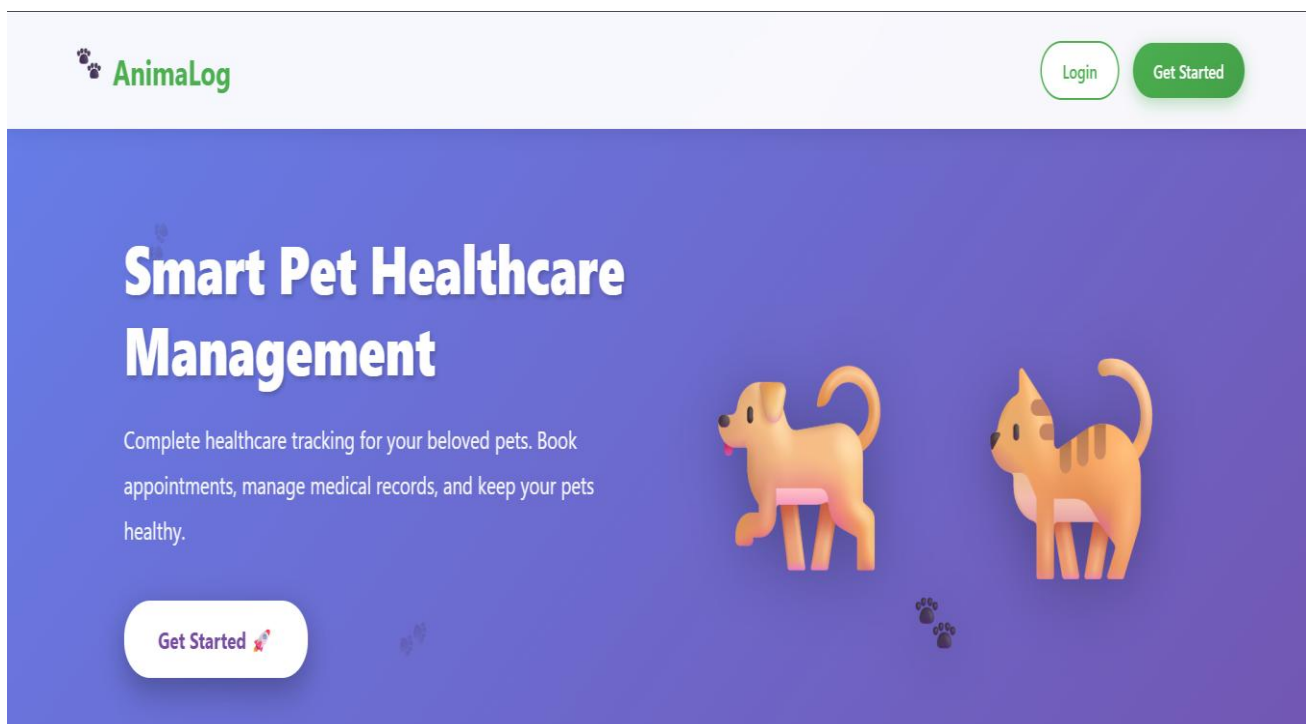


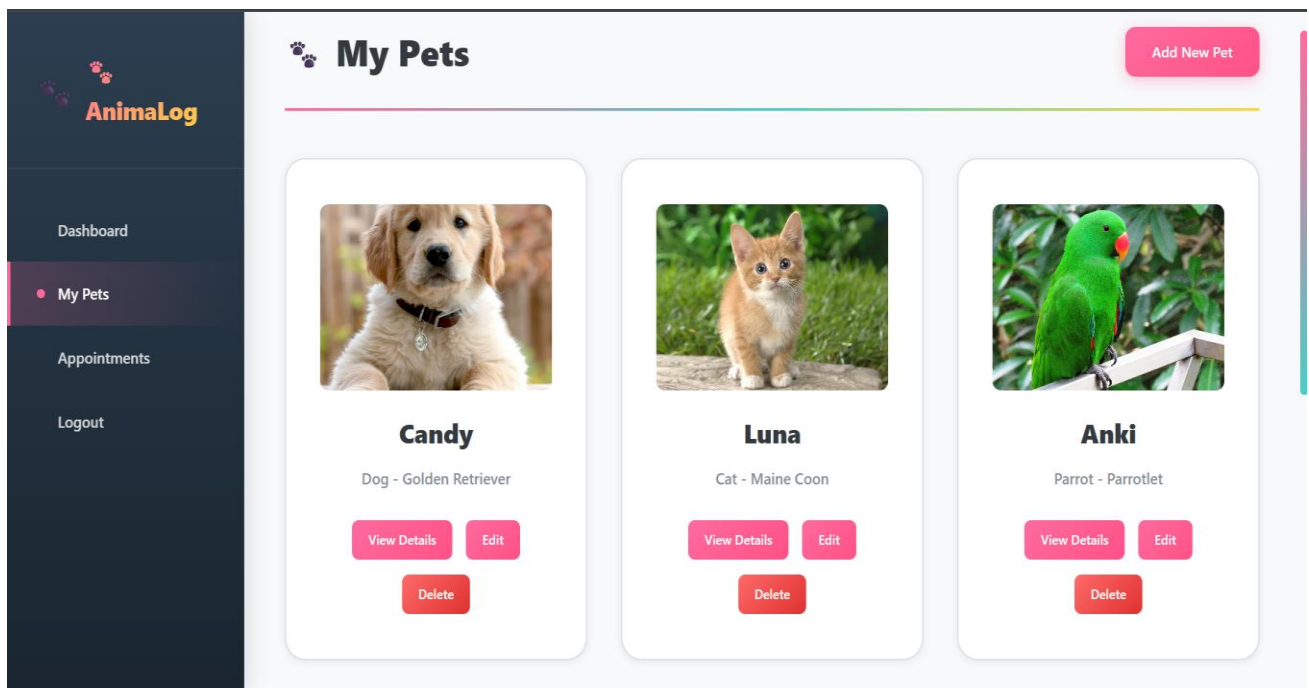
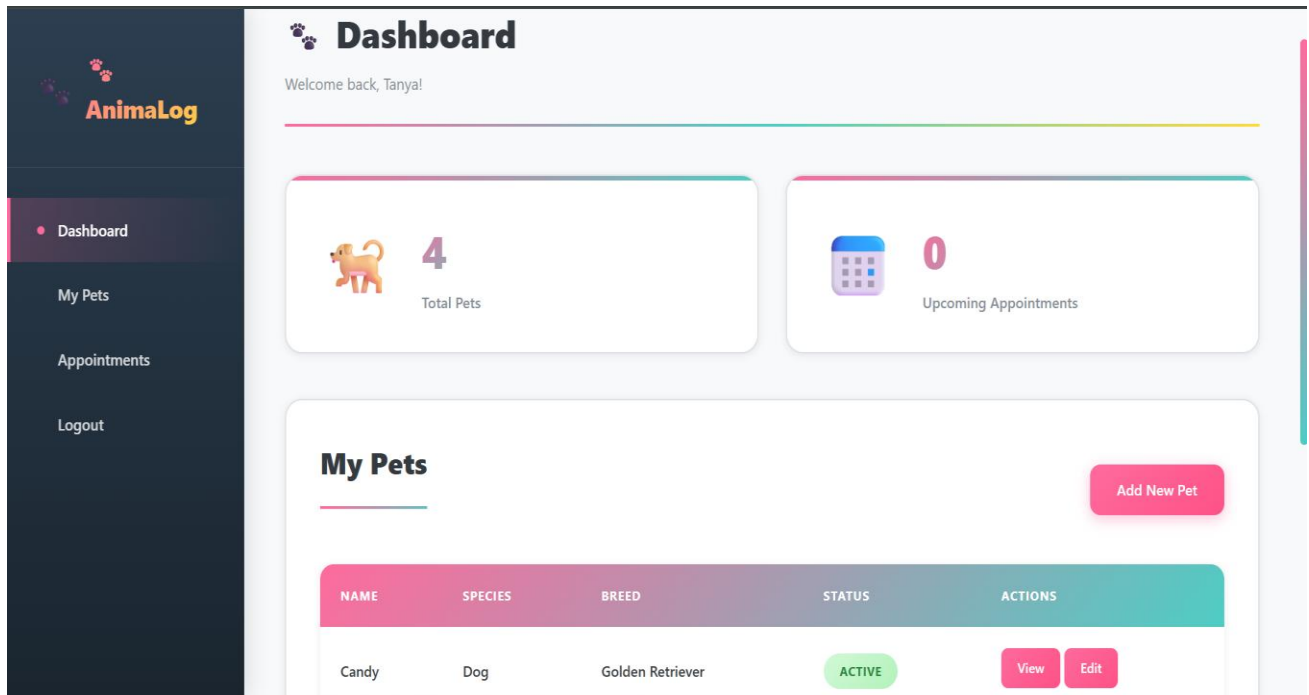
CHAPTER 10


TESTING AND RESULTS

Module	Test Performed	Expected Output
User Login	Credential Validation	Successful Login
Pet Management	Add / Update Pet	Pet Saved Successfully
Appointment Booking	Schedule Appointment	Appointment Updated
Veterinarian Module	View & Manage Appointments	Appointment Updated
Vaccination Reminder	Reminder Generation	Reminder Displayed
Health Report Upload	PDF / Image Upload	File Uploaded Successfully
Admin User Control	Add / Delete User	User Updated Successfully

OUTPUT :







Dashboard

My Pets


Appointments

Logout

My Appointments

Book New Appointment

PET NAME	DATE & TIME	PURPOSE	VETERINARIAN	STATUS	ACTIONS
Candy	13-11-2025 05:35	Checkup	Dr.Sam	CANCELLED	X Cancelled
Candy	12-11-2025 09:37	Checkup	Dr.Sam	SCHEDULED	Cancel
Candy	13-11-2025 11:58	Vaccination	Dr. Sam	COMPLETED	✓ Completed
Maxi	13-11-2025 11:51	Follow-up Visit	Gana	SCHEDULED	Cancel
Maxi	13-11-2025 11:51	Follow-up Visit	Gana	SCHEDULED	Cancel



Dashboard

Appointments

Medical Records


Vaccinations

Prescriptions

Logout


Veterinarian Dashboard

Welcome, Dr. Siri!



1

Today's Appointments




6

Total Patients

Today's Appointments

TIME	PET ID	PURPOSE	STATUS	ACTIONS
15:17	2	Follow-up Visit	SCHEDULED	Complete



Dashboard

Appointments

Medical Records

Vaccinations

Prescriptions

Logout

Medical Records

Add New Record

DATE	PET ID	TYPE	DIAGNOSIS	TREATMENT	COST	ACTIONS
13-11-2025	1	CHECKUP	Fever	Injection	500.00	Edit Delete
10-11-2025	3	VACCINATION	blood test	Injection	1000.00	Edit Delete

19 | Page

CHAPTER 11

FUTURE ENHANCEMENTS AND CONCLUSION

Future Enhancements :

1. Add a mobile app for Android and iOS.
2. Integrate cloud storage for storing reports securely.
3. Include AI-based disease prediction for pets.
4. Add real-time chat or video consultation with veterinarians.
5. Enable SMS notifications for reminders and alerts.
6. Integrate online payment options for appointments.
7. Add GPS-based nearby veterinarian locator.
8. Provide a detailed analytics dashboard for veterinarians.
9. Enable multi-language support for wider accessibility.
10. Expand report formats and allow larger file uploads.

Conclusion:

AnimaLog – Smart Pet Health Platform successfully addresses the limitations of traditional pet healthcare management by offering a centralized, digital, and user-friendly solution. Through features such as pet profile management, appointment scheduling, vaccination tracking, and medical report storage, the system enhances both the convenience and quality of pet healthcare.

The project demonstrates the practical application of full-stack development using Java, Spring Boot, Thymeleaf, and MySQL. It incorporates secure authentication, efficient database handling, and modular architecture, ensuring that the platform is reliable, scalable, and maintainable. The division of functionalities into clear modules also makes future enhancements easy to implement.

By bridging the communication gap between pet owners and veterinarians and ensuring better record management, AnimaLog contributes to improving the overall healthcare experience for pets. Although the current system already provides essential functionalities, there is significant scope for future expansion through advanced technologies such as AI, cloud computing, mobile integration, and analytics.

Overall, AnimaLog stands as a comprehensive, practical, and impactful digital solution for modern pet healthcare management, offering long-term benefits for both users and healthcare providers.