

System Documentation

for

Cat Sanctuary Record Tracker System

Version <3.0>

Group No.: 02

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Revisions

Version	Primary Author(s)	Description of Version	Date Completed
Ver 1.0	Haizatul Nazirah Nizam binti Hairunizam, Nur Alia Shazwani binti Mohd Nazri, Yogamittran A/L Shanmugam	Project Introduction, System Overview, Scenario – Based Modeling and Requirements Modeling.	08/12/2024
Ver 2.0	Haizatul Nazirah Nizam binti Hairunizam, Nur Alia Shazwani binti Mohd Nazri, Yogamittran A/L Shanmugam	Architecture Design, Interface Design, Component Design, Deployment Design and Updated Requirement.	14/01/2025
Ver 3.0	Haizatul Nazirah Nizam binti Hairunizam, Nur Alia Shazwani binti Mohd Nazri, Yogamittran A/L Shanmugam	Implementation, Testing, Sample Screens, Conclusion and User Guide.	12/02/2025

1 Project Management

1.1 Team Members

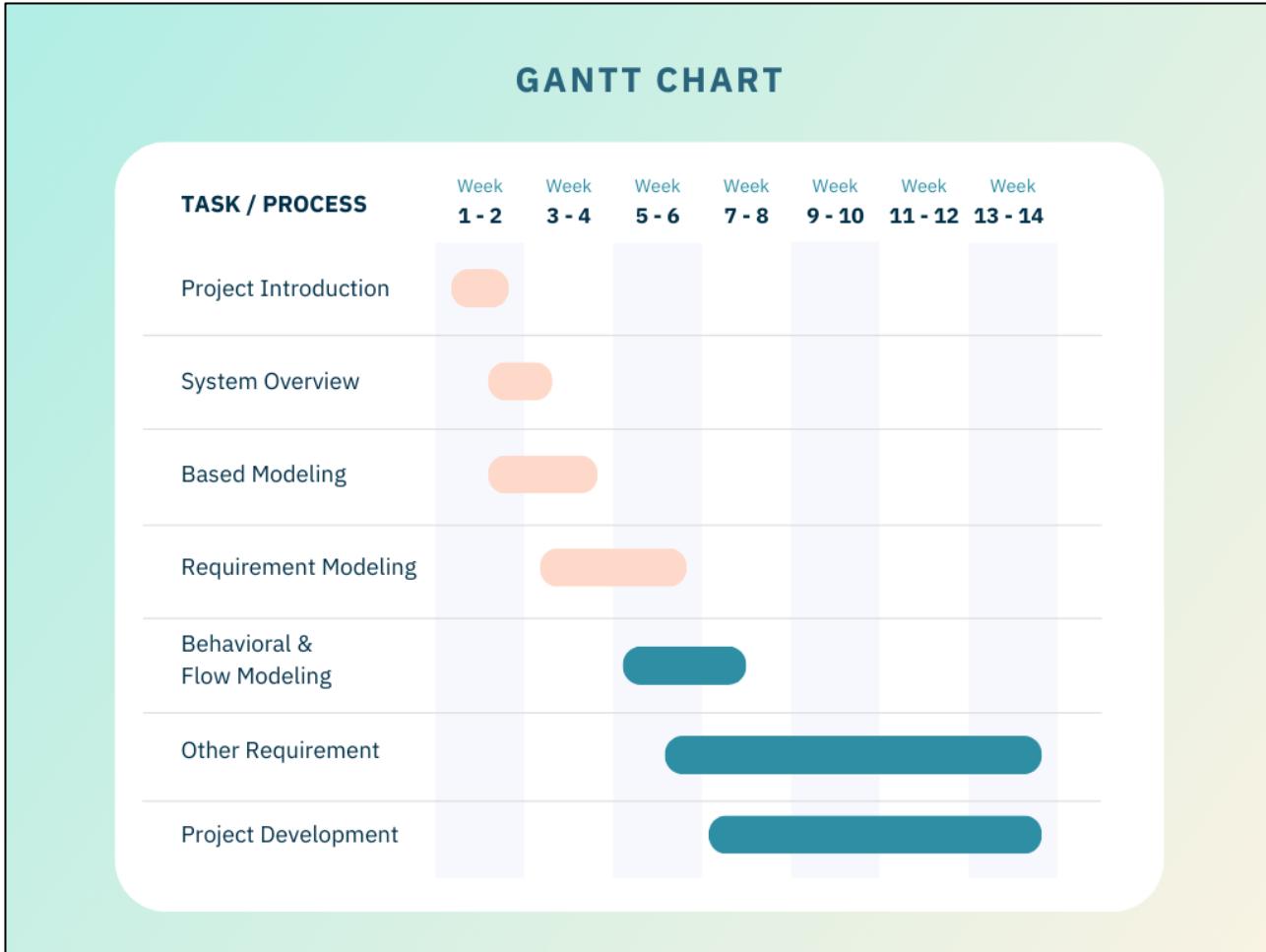
Name	Actor/Processes
Haizatul Nazirah Nizam binti Hairunizam	Administrator
Nur Alia Shazwani binti Mohd Nazri	Medical Staff
Yogamittran A/L Shanmugam	Caretaker

1.2 Problem statement

Cat sanctuaries often struggle with managing the comprehensive records and daily care of their residents due to inefficient, disorganized, or outdated systems. Incomplete health records, trouble arranging and monitoring medical treatments, irregular documentation of everyday activities, and a lack of insight into the cats' general wellbeing are all consequences of the absence of an integrated platform. Furthermore, the lack of role-based access restriction may lead to improper monitoring and illegal access to private information.

A strong Cat Sanctuary Record System that facilitates the easy administration of cat profiles, medical data, and daily care tasks is required to address these problems. To enable effective data entry, monitoring, and reporting, this system must support three separate user roles with corresponding access permissions: administrator, medical staff, and caretaker. Additionally, the system must offer extensive analytics and reporting capabilities to enhance decision-making and enhance the overall care provided to the cats.

1.3 Project Plan



2 System Overview

2.1 Description

The Cat Sanctuary Record System is designed to provide an efficient record management solution for a cat sanctuary. The system ensures seamless tracking and management of each cat's health records and daily activities while accommodating three user types: Administrator, Medical Staff, and Caretaker, each with distinct access permissions.

Key features of the system include maintaining comprehensive cat profiles with medical histories, managing and monitoring health records, and tracking daily care activities. Additionally, the system incorporates user role-based access control to ensure security and supports reporting and analytics for data-driven decision-making.

2.2 Actors

The Cat Sanctuary Record System supports three key actors: Administrator, Medical Staff, and Caretaker, each with specific use cases tailored to their roles. Administrators control user accounts and permissions, manage system settings, access all system data, and generate comprehensive system reports, ensuring the overall functionality and security of the system.

Medical Staff focus on managing cat health records, scheduling medical check-ups, recording treatments and medications, monitoring daily care activities, and generating medical reports. Caretakers, on the other hand, handle the daily care of the cats by recording care activities, tracking feeding and cleaning routines, and monitoring behavioural changes to ensure the well-being of the sanctuary's residents.

Actor	Use Cases
Administrator	Control user accounts
	Access all system data
	Generate system reports
Medical Staff	Manage cat health records
	Schedule medical check-ups
	Record treatments and medications
	Monitor daily care activities
	Generate medical reports
Caretaker	Record daily care activities
	Track feeding and cleaning
	Monitor behavioral changes

Table 1.1: Actors and Respective Use Case

2.3 Assumptions and Dependencies

- **Scalability:**

Assumption: The active number of users could occasionally exceed the server's current capacity.

Dependencies: The system's database, server specifications, and architectural design must be selected to handle potential growth in user traffic.

- **Network:**

Assumption: The system will be used on modern hardware equipped with stable internet access.

Dependencies: The system should be designed to offer basic functionality for users with suboptimal connectivity.

- **System Security:**

Assumption: Standard security protocols and best practices will be consistently applied.

Dependencies: The system architecture must be able to integrate additional security measures quickly if a new threat is identified.

- **User Training:**

Assumption: Users will receive adequate training to navigate the system effectively.

Dependencies: Training resources and documentation should be available and up to date to ensure user proficiency.

- **System Maintenance:**

Assumption: Regular maintenance and updates will be conducted to keep the system running optimally.

Dependencies: A schedule for routine system checks and patches should be planned to minimize disruptions.

- **Backup and Recovery:**

Assumption: The system will have regular data backups.

Dependencies: Recovery processes must be tested regularly to ensure they function as intended during data loss events.

2.4 Use Case Diagram

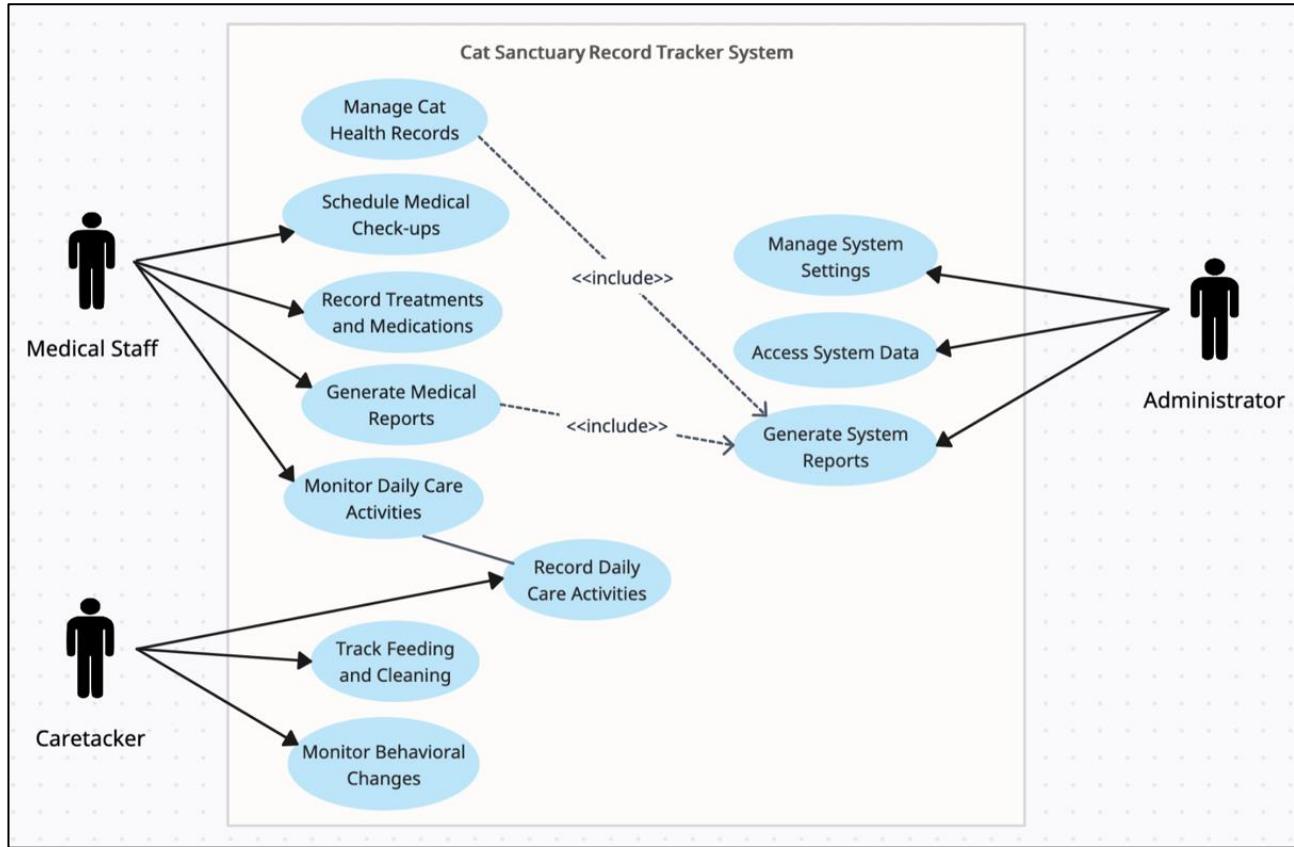


Figure 1.4: Use Case Diagram

2.4.1 Administrator

2.4.1.1 User Account

Use Case Name	User Account
Description	Process for managing user accounts and permissions
Primary Actor	Administrator
Precondition	Administrator must be logged into the system
Postcondition	User account is created, modified, or deleted successfully
Main Success Scenario	<ol style="list-style-type: none">1. Administrator selects "Manage User Accounts" option2. System displays list of existing user accounts3. Administrator can:<ul style="list-style-type: none">- Create new user account- Modify existing user account- Delete user account4. System validates and saves changes
Alternative Scenario	<ol style="list-style-type: none">1. Invalid user information entered<ul style="list-style-type: none">- System displays error message- Returns to data entry2. Network connection fails<ul style="list-style-type: none">- System saves draft locally- Retries when connection restored

Table 2.4.1.1: User Account Use Case Description

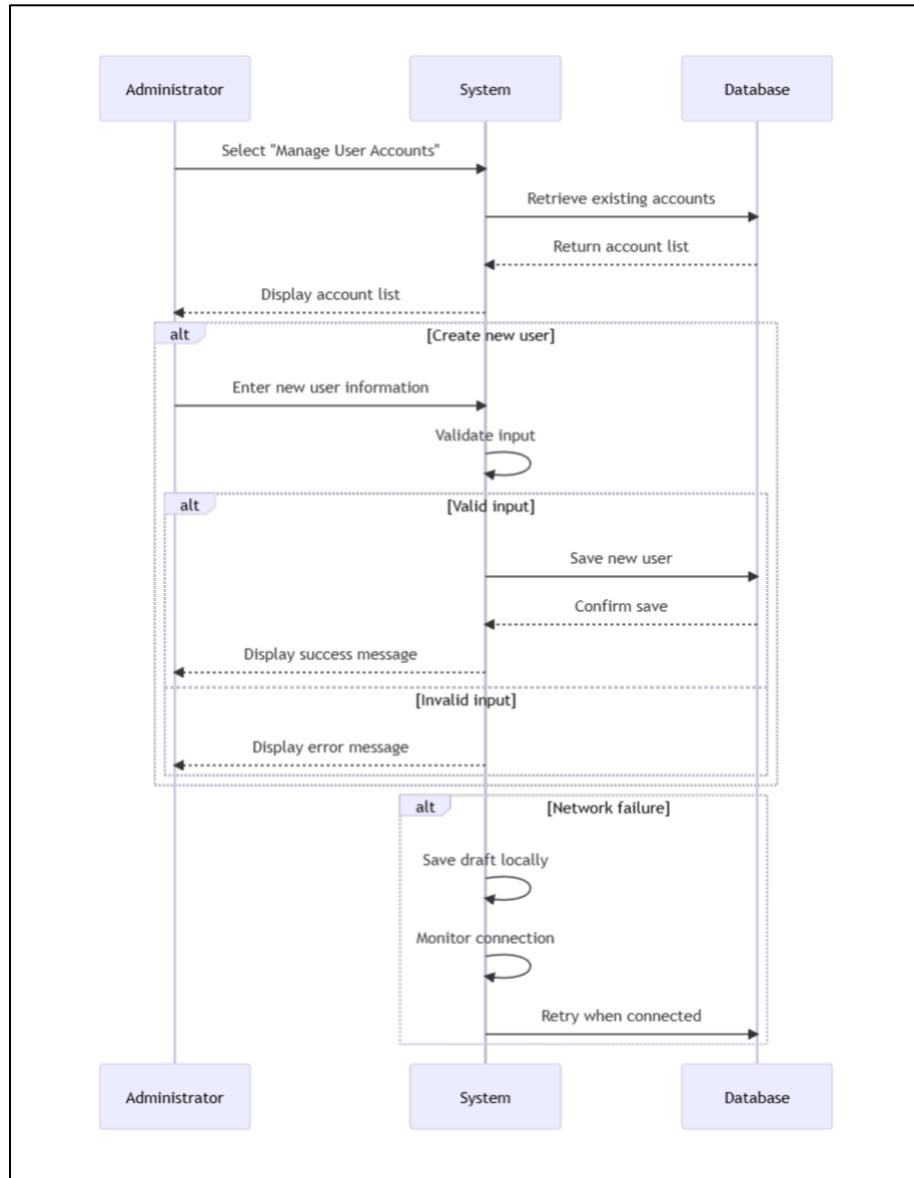


Figure 2.4.1.1: User Account Sequence Diagram

2.4.1.2 Data Access

Use Case Name	Data Access
Description	Process for accessing and managing all Cats data
Primary Actor	Administrator
Precondition	Administrator is logged in with proper access rights
Postcondition	Required data is accessed or modified successfully
Main Success Scenario	<ol style="list-style-type: none">1. Administrator selects cat records option2. System displays all cat records3. Administrator can:<ul style="list-style-type: none">- View all records- Edit data- Delete record4. System processes the requested operation
Alternative Scenario	<ol style="list-style-type: none">1. Invalid user information entered<ul style="list-style-type: none">- System displays error message- Returns to data entry2. Network connection fails<ul style="list-style-type: none">- System saves draft locally- Retries when connection restored

Table 2.4.1.2: Data Access Use Case Description

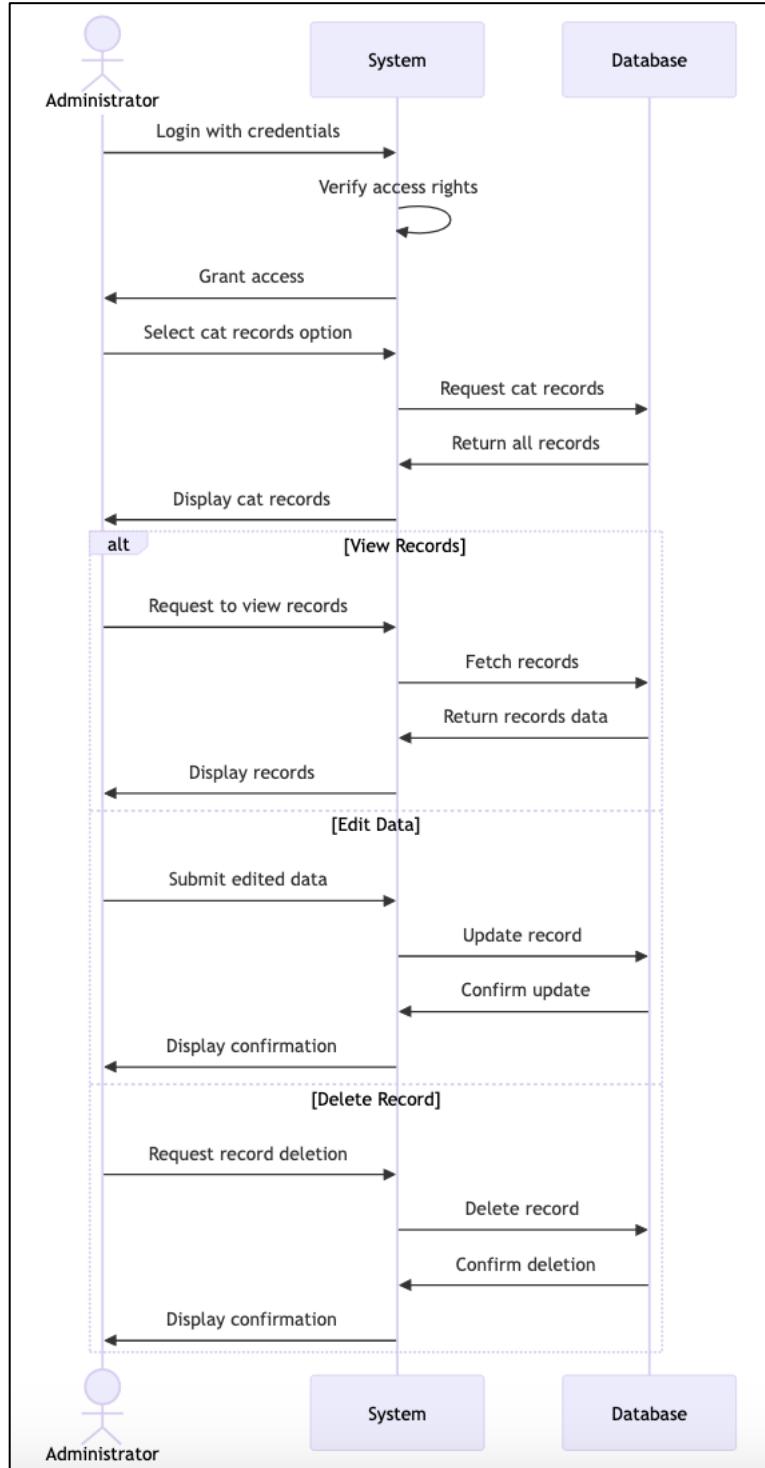


Figure 2.4.1.2: Data Access Sequence Diagram

2.4.1.3 Reports

Use Case Name	Reports
Description	Process for accessing and exporting all reports
Primary Actor	Administrator
Precondition	Administrator is logged in with proper access rights
Postcondition	Required data is accessed or exported successfully
Main Success Scenario	<ol style="list-style-type: none">1. Administrator selects reports option2. System displays all type of reports3. Administrator can:<ul style="list-style-type: none">- Select report type- Generate report- View all reports- Export report4. System processes the requested operation
Alternative Scenario	<ol style="list-style-type: none">1. Invalid date entered<ul style="list-style-type: none">- System displays error message- Returns to date entry2. Network connection fails<ul style="list-style-type: none">- System saves draft locally- Retries when connection restored

Table 2.4.1.3: Reports Use Case Description

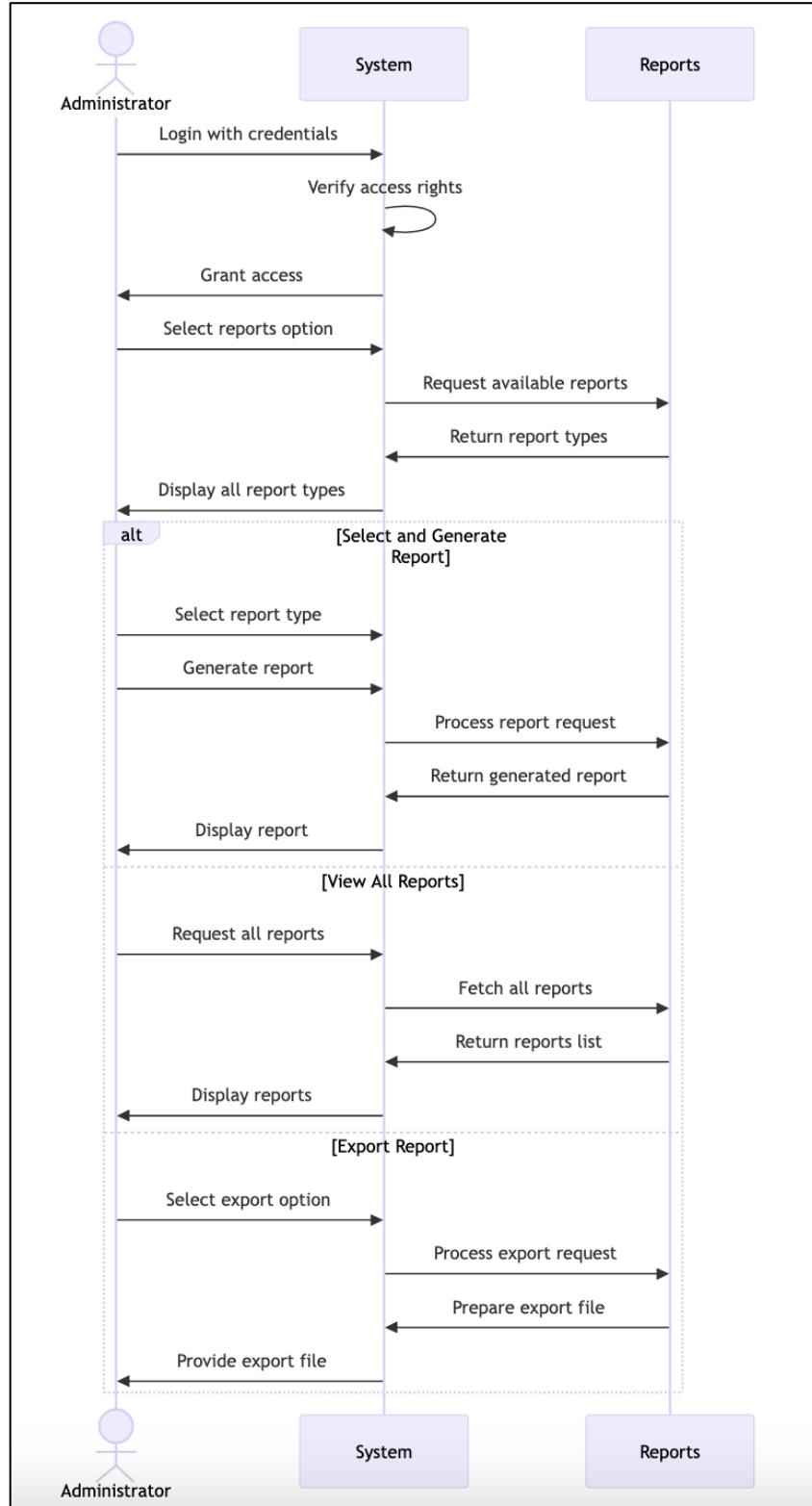


Figure 2.4.1.3: Reports Sequence Diagram

2.4.2 Medical Staff

2.4.2.1 Health Record Management

Use Case Name	Health Record Management
Description	Process for managing cats' health records
Primary Actor	Medical Staff
Precondition	Medical Staff member is logged in
Postcondition	Health records are updated successfully
Main Success Scenario	<ol style="list-style-type: none">1. Staff selects cat from database2. System displays cat's health history3. Staff can:<ul style="list-style-type: none">- Add new health record- Update existing record- View medical history4. System saves health record updates
Alternative Scenario	<ol style="list-style-type: none">1. Required information missing<ul style="list-style-type: none">- System flags incomplete fields- Prevents save until complete2. Emergency case<ul style="list-style-type: none">- System prioritizes record- Sends notifications to relevant staff

Table 2.4.2.1: Health Record Management Use Case Description

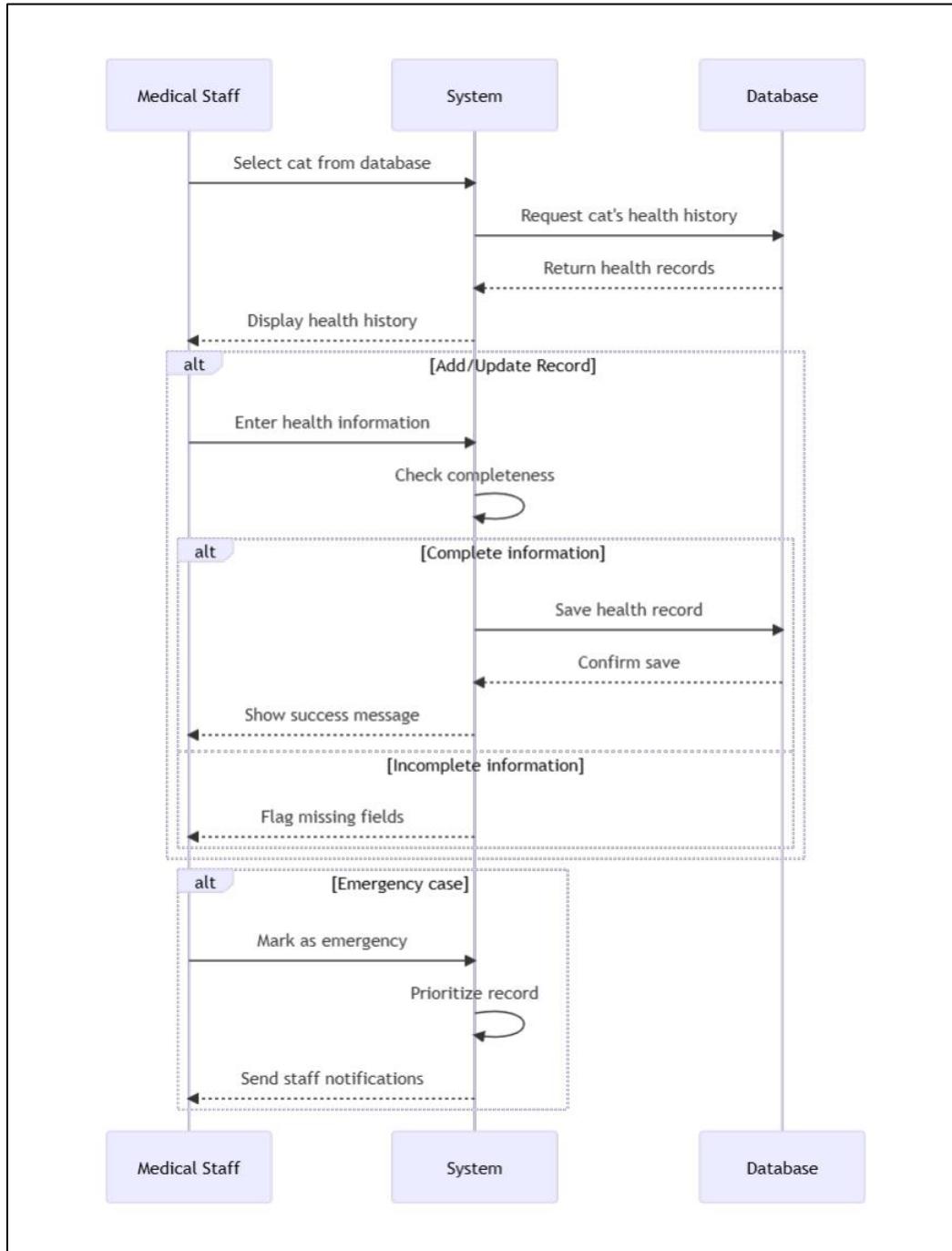


Figure 2.4.2.1: Health Record Management Sequence Diagram

2.4.2.2 Medical Scheduling

Use Case Name	Medical Scheduling
Description	Process for scheduling medical checkups and treatments
Primary Actor	Medical Staff
Precondition	Medical staff member is logged in with scheduling rights
Postcondition	Medical appointment is scheduled successfully
Main Success Scenario	<ol style="list-style-type: none">1. Staff accesses scheduling system2. System shows available time slots3. Staff can:<ul style="list-style-type: none">- Schedule new appointment- Modify existing appointment- Cancel appointment4. System updates schedule
Alternative Scenario	<ol style="list-style-type: none">1. Schedule conflict<ul style="list-style-type: none">- System alerts staff- Suggests alternative slots2. Emergency scheduling<ul style="list-style-type: none">- System overrides normal scheduling- Notifies affected appointments

Table 2.4.2.2: Medical Scheduling Use Case Description

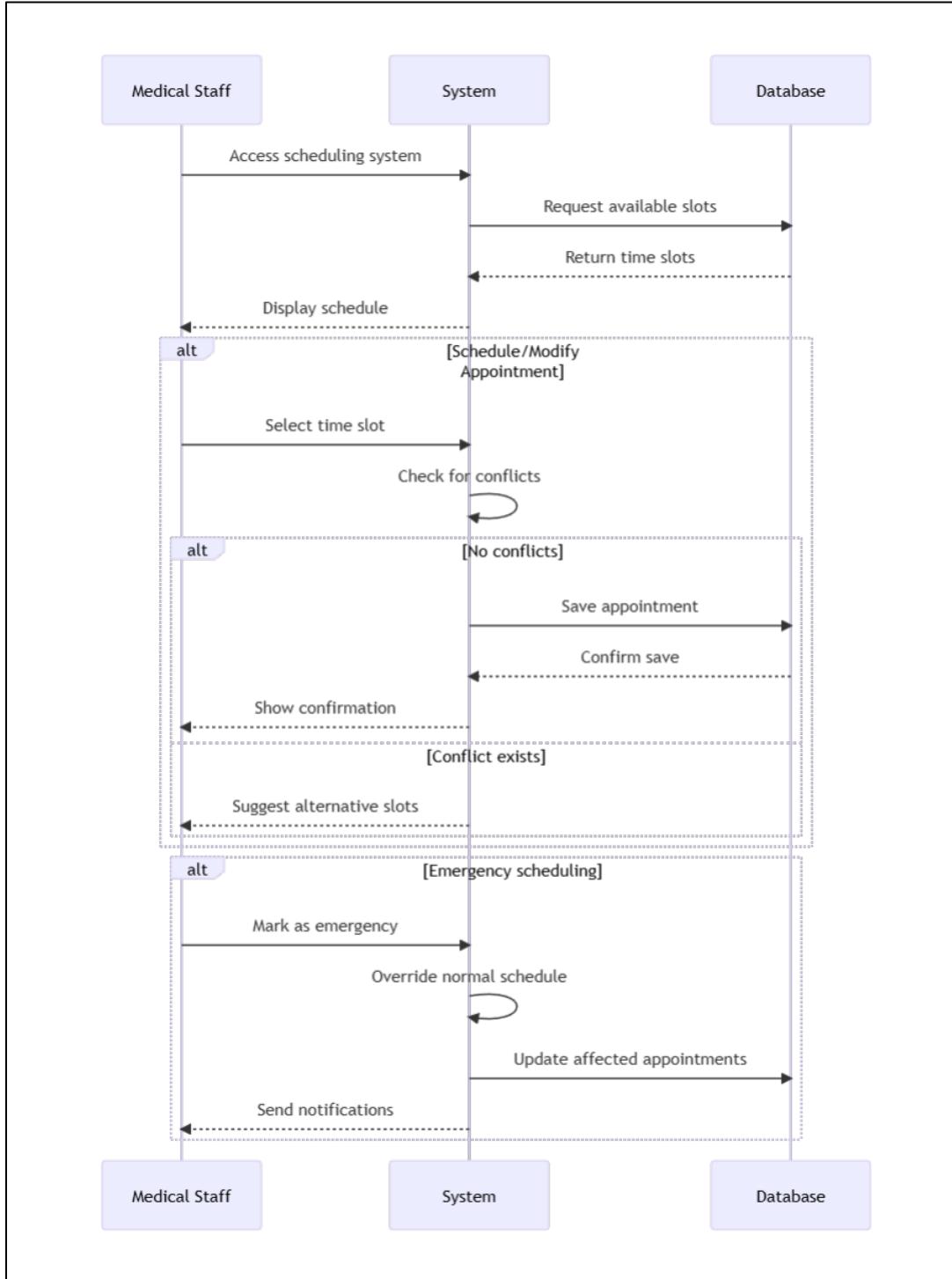


Figure 2.4.2.2: Medical Scheduling Sequence Diagram

2.4.2.3 Health Monitoring

Use Case Name	Health Monitoring
Description	Process for monitoring and reporting cat health status
Primary Actor	Medical Staff
Precondition	Medical staff member is logged in
Postcondition	Health monitoring report is generated
Main Success Scenario	<ol style="list-style-type: none">1. Staff selects monitoring function2. System displays monitoring options3. Staff can:<ul style="list-style-type: none">- View current health status- Track treatment progress- Generate health reports4. System compiles requested information
Alternative Scenario	<ol style="list-style-type: none">1. Abnormal health indicators<ul style="list-style-type: none">- System generates alert- Prompts immediate review2. Missing data points<ul style="list-style-type: none">- System flags incomplete monitoring- Requests data update

Table 2.4.2.3: Health Monitoring Use Case Description

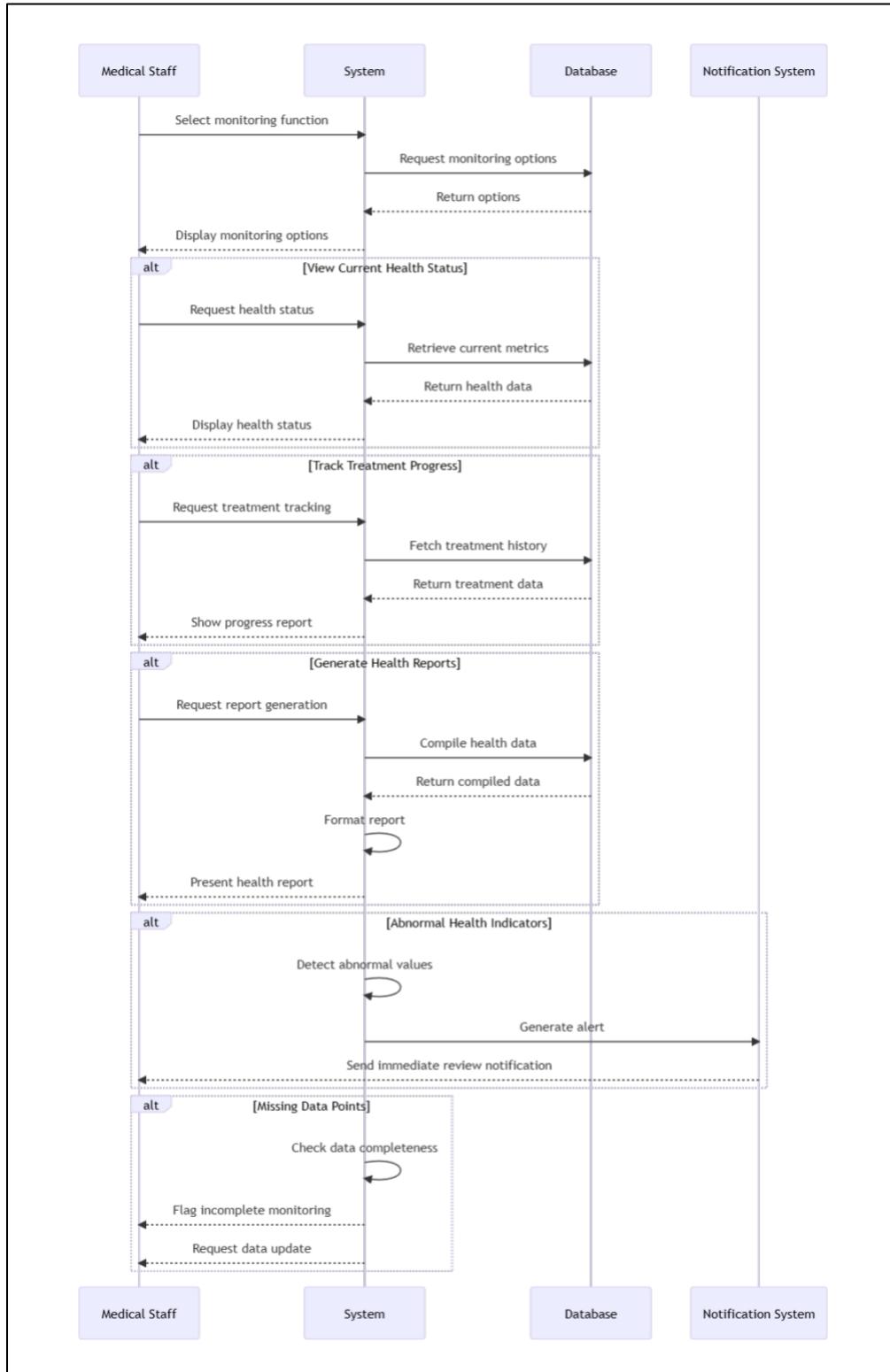


Figure 2.4.2.3: Health Monitoring Sequence Diagram

2.4.2.4 Medical Report

Use Case Name	Reports
Description	Process for accessing and exporting all reports
Primary Actor	Medical Staff
Precondition	Medical staff member is logged in with proper access rights
Postcondition	Required data is accessed or exported successfully
Main Success Scenario	<ol style="list-style-type: none">5. Medical Staff selects reports option6. System displays all type of reports7. Medical Staff can:<ul style="list-style-type: none">- Select report type- Generate report- View all reports- Export report8. System processes the requested operation
Alternative Scenario	<ol style="list-style-type: none">3. Invalid date entered<ul style="list-style-type: none">- System displays error message- Returns to date entry4. Network connection fails<ul style="list-style-type: none">- System saves draft locally- Retries when connection restored

Table 2.4.1.3: Medical Reports Use Case Description

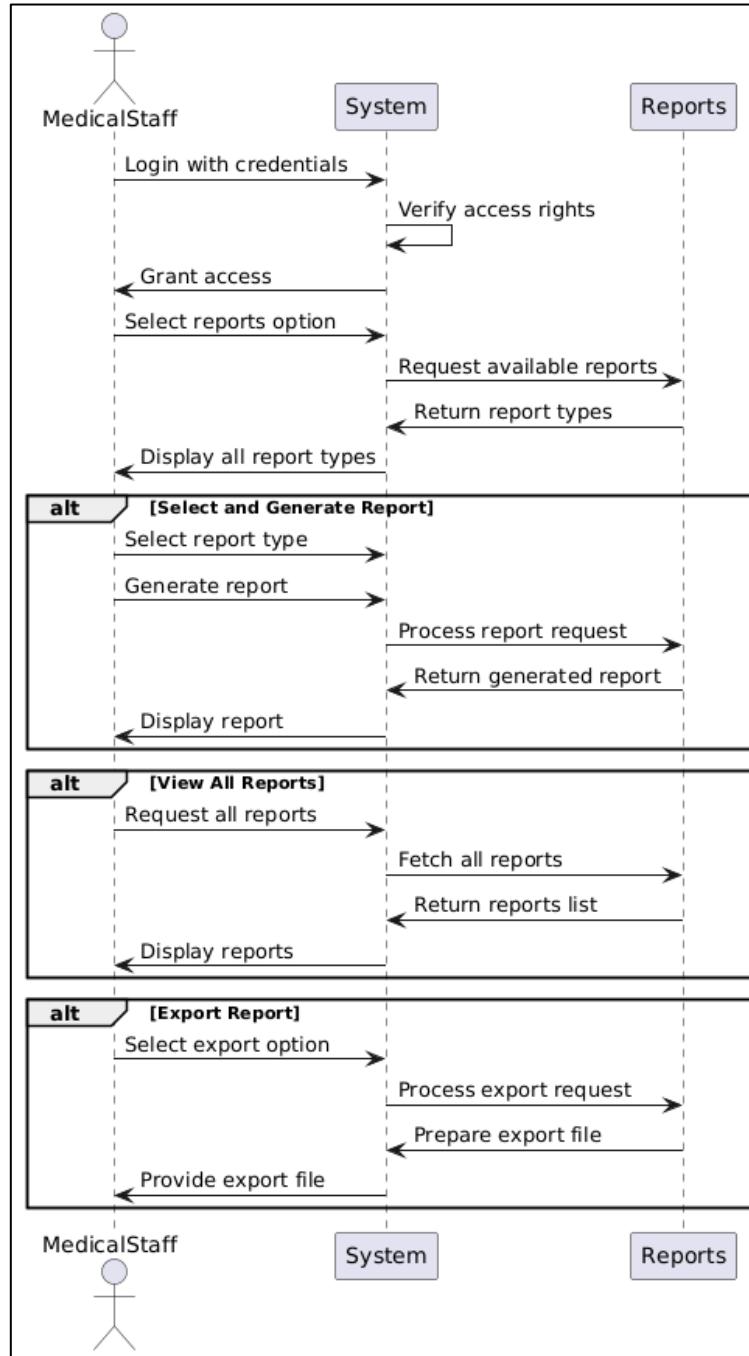


Figure 2.4.1.4: Medical Report Sequence Diagram

2.4.3 Caretaker

2.4.3.1 Daily Care Activities

Use Case Name	Daily Care Activities
Description	Process for managing daily cat care tasks
Primary Actor	Caretaker
Precondition	Caretaker is logged in
Postcondition	Daily care activities are recorded successfully
Main Success Scenario	<ol style="list-style-type: none">1. Caretaker accesses daily task list2. System displays scheduled activities3. Caretaker can:<ul style="list-style-type: none">- Record feeding times- Log cleaning activities- Note behavioral observations4. System updates care records
Alternative Scenario	<ol style="list-style-type: none">1. Missed activity<ul style="list-style-type: none">- System flags overdue task- Generates reminder notification2. Unusual behavior observed<ul style="list-style-type: none">- System alerts medical staff- Creates incident report

Table 2.4.3.1: Daily Care Activities Use Case Description

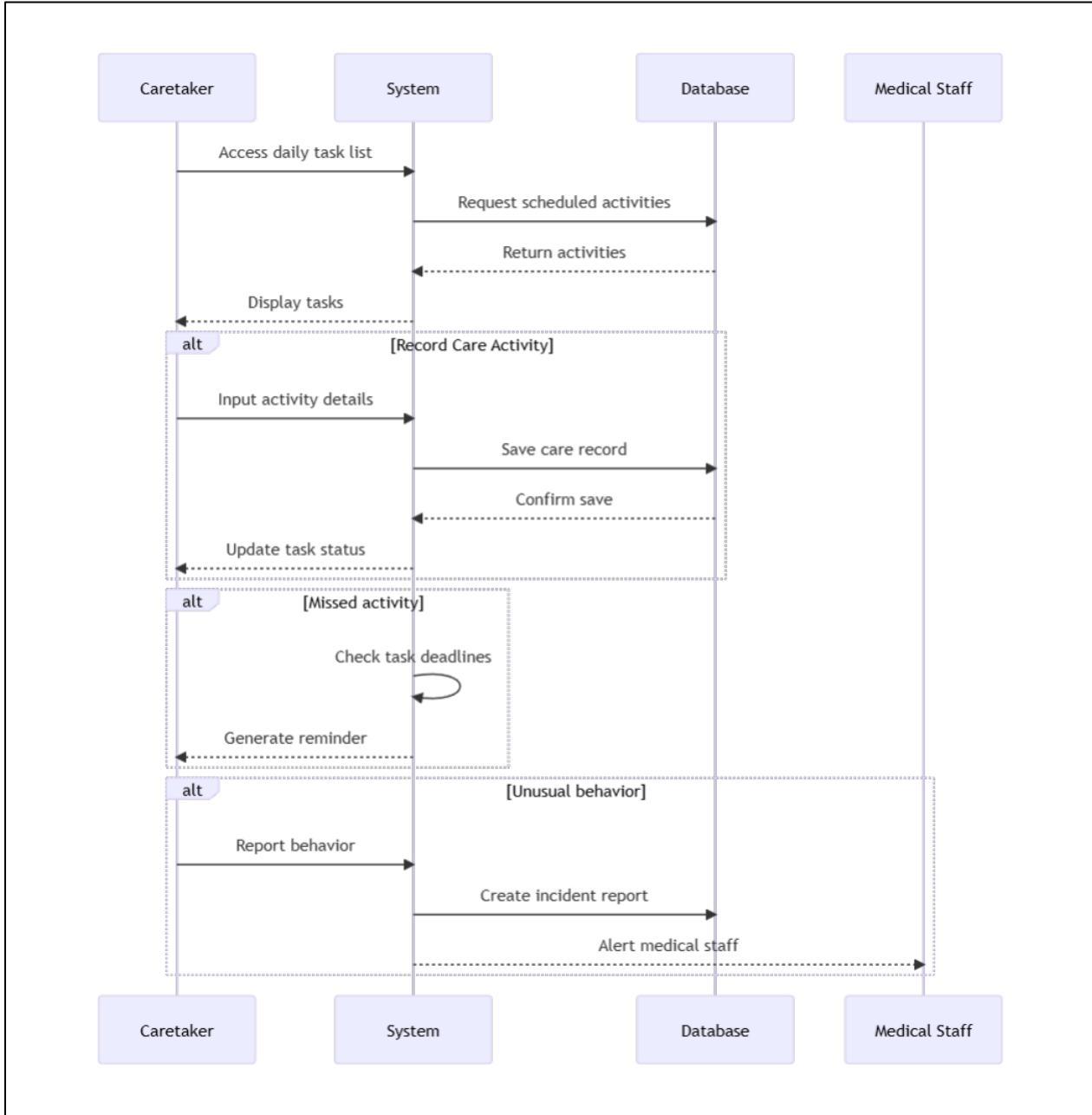


Figure 2.4.3.1: Daily Care Activities Sequence Diagram

3 Requirements

3.1 Class Diagram

This system consists of several classes that organize and manage information efficiently. The **Cat Profile** class holds essential details about each cat, such as its ID, name, breed, age, and a summary of its medical history. This provides a foundational overview of every cat in the system. The **Medical Record** class complements this by tracking medical treatments, including details of the treatments provided, the dates they occurred, and the caretaker responsible for them. Together, these two classes ensure that both general and medical information about the cats is maintained accurately.

The **Daily Care Records** class focuses on managing routine care activities. It logs information about feeding, cleaning, schedules, behaviour, and specific care dates for each cat. This ensures that daily caregiving activities are tracked comprehensively. On the user side, the **User** class stores details about system users, including their roles, such as Administrator, Medical Staff, or Caretaker. This allows the system to differentiate between users and assign them appropriate access or tasks based on their roles.

Finally, the **Reports** class manages the generation of reports. It includes information about the type of report, who created it, the date of creation, and other report-related details. This ensures that the system maintains a record of all generated reports for tracking and analysis purposes. Altogether, these classes work cohesively to streamline data management within the system.

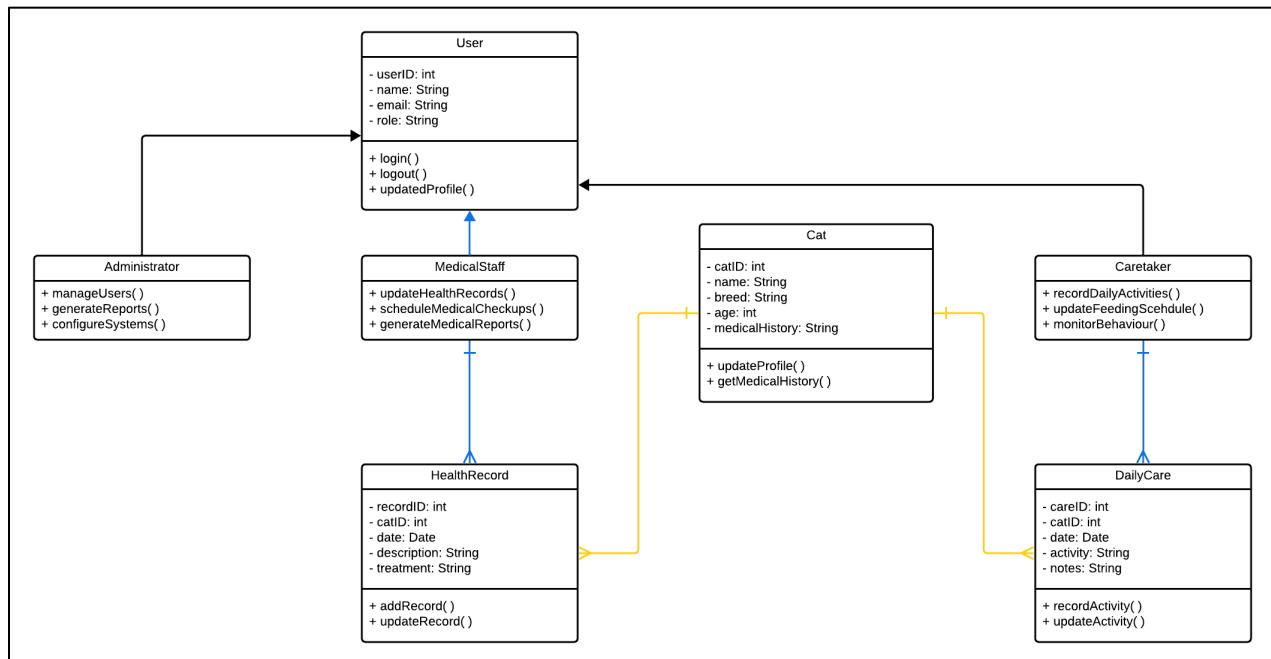


Figure 3.1 Class Diagram

3.2 Data Flow Diagram

The Data Flow Diagrams (DFDs) illustrate how data moves through the Cat Sanctuary Record Tracker System, showing the interactions between different processes, external entities, and data stores.

3.2.1 Administrator Subsystem (Level 0)

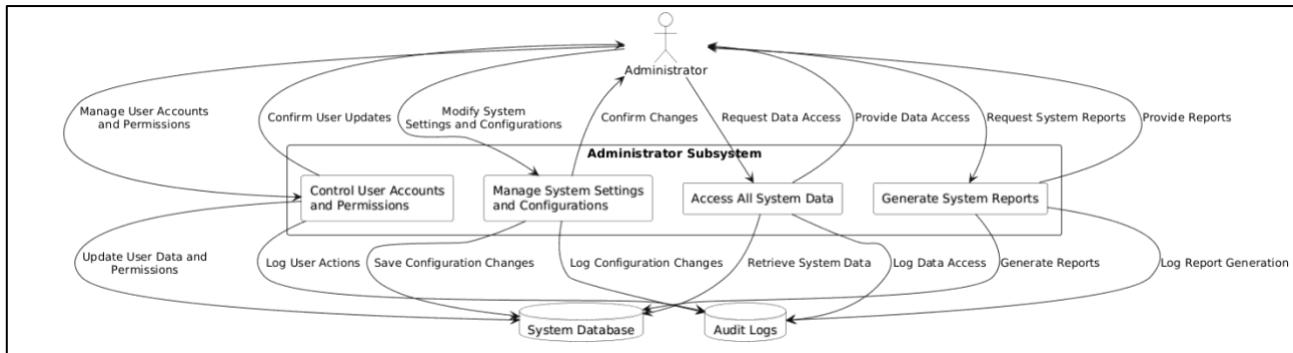


Figure 3.2.1 Administrator Subsystem (Level 0) Data Flow Diagram

3.2.2 Medical Staff Subsystem

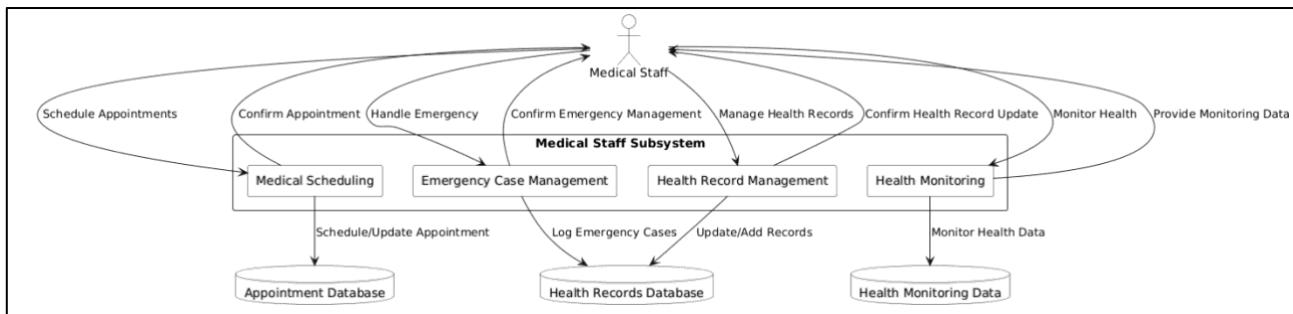


Figure 3.2.2 Medical Staff Subsystem Data Flow Diagram

3.2.3 Caretaker Subsystem

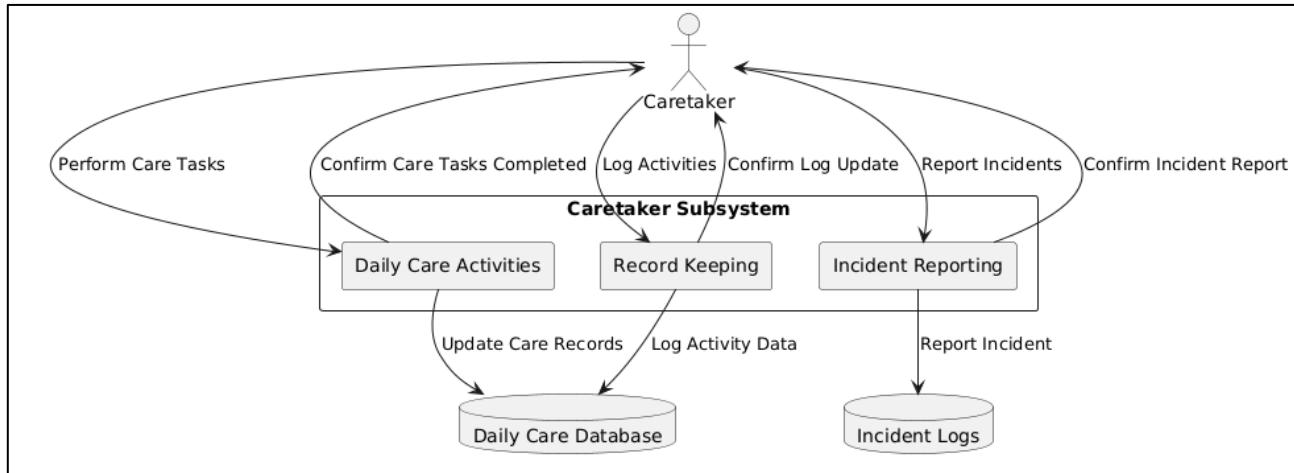


Figure 3.2.3 Caretaker Subsystem Data Flow Diagram

3.3 State Diagrams

3.3.1 Administrator System

The Administrator State Diagram represents the workflow of administrative functions in the Cat Sanctuary Record Tracker System. It begins with the main administrative page and includes three key areas of operation: User Account Management, System Configuration, and Data Access. The User Account Management section covers the entire process of managing user accounts, such as creating, modifying, and deleting user credentials. The System Configuration section outlines tasks like updating security parameters, setting up backup schedules, and managing notifications. The Data Access section details actions such as viewing records, exporting data, archiving old records, and handling system backups. All tasks have clear transition paths back to the main administrative page, ensuring efficient and organized system administration.

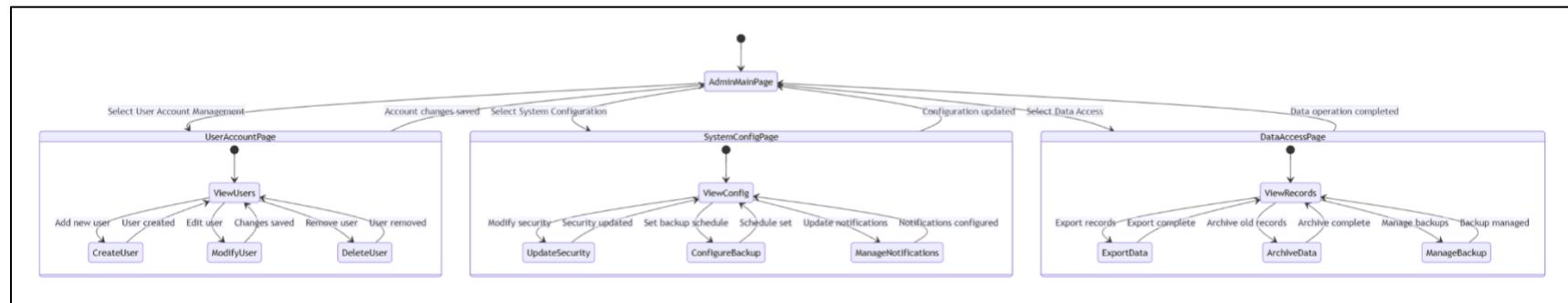


Figure 3.3.1 Administrator System State Diagram

3.3.2 Medical Staff System

The Medical Staff State Diagram outlines the workflow for managing medical operations in the system. Starting from the medical staff's main page, it branches into three main areas: Health Record Management, Medical Scheduling, and Health Monitoring. Health Record Management includes viewing cat profiles, accessing medical histories, and updating health records. Medical Scheduling covers managing appointments, such as scheduling new check-ups, modifying existing ones, and handling cancellations. Health Monitoring focuses on tracking treatment progress, generating health reports, and managing medical alerts. The diagram highlights how these tasks are connected while providing clear pathways for handling both routine and emergency medical care.

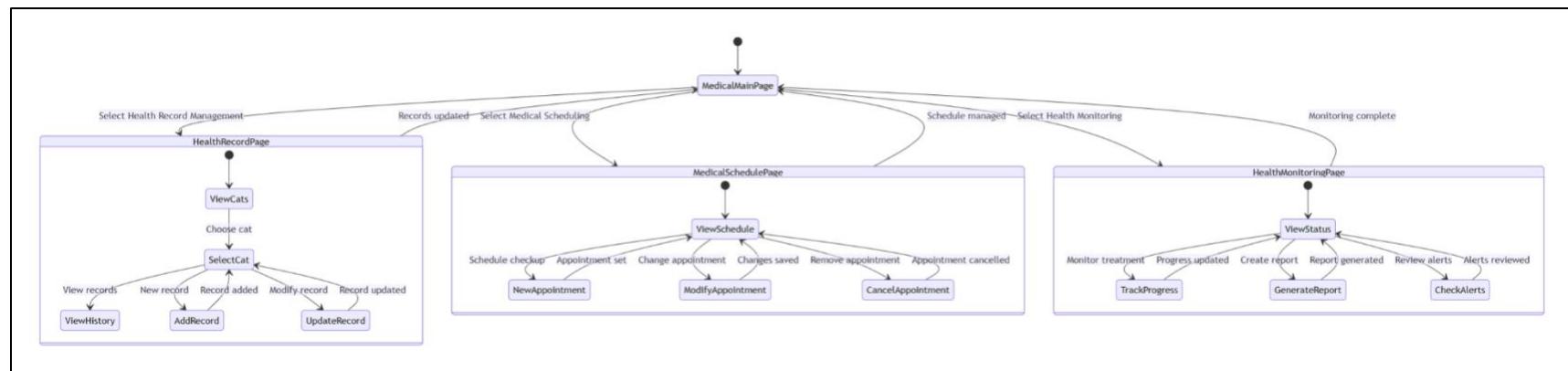


Figure 3.3.2 Medical Staff System State Diagram

3.3.3 Caretaker System

The Caretaker State Diagram describes the daily tasks for cat care. It starts with the caretaker's main page and focuses on daily activities like feeding, cleaning, and observing cat behavior. The diagram also includes steps for handling missed tasks and emergencies, like reporting unusual behavior to medical staff. It highlights how daily tasks are repeated while providing ways to deal with interruptions or urgent situations, ensuring that all cats receive steady and reliable care at the sanctuary.

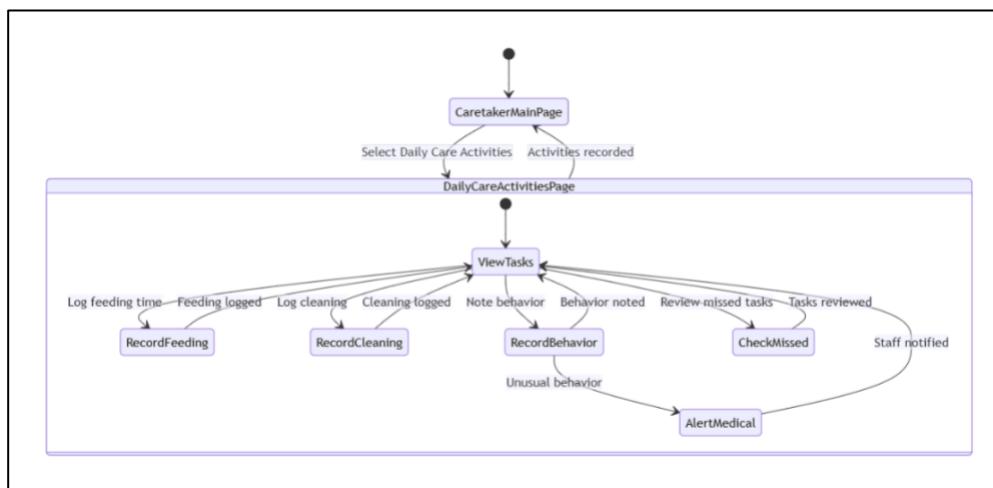


Figure 3.3.3 Caretaker System State Diagram

4 Design

4.1 Data Dictionary

The Cat Sanctuary Record Tracker System has six entities: User (Administrator, Medical Staff, Caretaker), Cat, HealthRecord, and DailyCare. User manages staff roles, Cat tracks resident details, HealthRecord logs medical histories, and DailyCare records routine care. Defined attributes and relationships ensure data accuracy and reflect real-world interactions.

Table Name	Attribute Data	Type	Field Size	Description	PK/FK	FK Referenced Table
User	user_id username password first_name last_name email role contact_number last_login status	INT VARCHAR VARCHAR VARCHAR VARCHAR VARCHAR ENUM VARCHAR DATETIME ENUM	4 50 255 50 50 100 20 20 - -	Unique ID User login's name Encrypted password User's first name User's last name User's email address User role (Admin/ Medical/ Caretaker) User's contact number Timestamp of last login Account status (1 = active, 0 = inactive)	PK	
Cat	cat_id name date_of_birth breed color gender intake_date status	INT VARCHAR DATE VARCHAR VARCHAR ENUM DATE ENUM	4 50 - 30 30 10 - -	Unique ID Cat's name Cat's birth date Cat's breed Cat's color Cat's gender Date cat entered sanctuary Cat's status (1 = active, 0 = inactive)	PK	

Software Requirements Specification for Cat Sanctuary Record Tracker System (Version 3.0)

Health Record	record_id cat_id staff_id date type description treatment medications next_checkup	INT INT INT DATE VARCHAR TEXT VARCHAR VARCHAR DATE	4 4 4 - 30 255 50 50 -	Unique ID Reference to cat Reference to medical staff Date of the health record Type of health record (e.g., Vaccination, Infection) Detailed description of health issue Treatment provided Prescribed medications Next scheduled checkup date	PK FK FK	Cat User
Behavior	behavior_id cat_id behavior_type description date caretaker_id created_at	INT INT VARCHAR TEXT DATE INT TIMESTAMP	4 4 50 - - 4 -	Unique ID for the behavior record Reference to the cat Type of behavior (e.g., Social, Aggressive) Detailed description of the behavior Date of the behavior observation Reference to the caretaker Timestamp of when the record was created	PK FK FK	Cat User
Daily Care	careID catID caretakerID Date FeedingTime FoodType FoodAmount	INT INT INT DATE TIME VARCHAR DECIMAL	4 4 4 - - 50 (5,2) -	Unique ID Reference to cat Reference to caretaker Date of care activity Time of feeding Type of food given Amount of food in grams Behavioral observations	PK FK FK	Cat User
	Behavior Grooming Notes	TEXT TINYINT TEXT	- - -	Whether grooming was performed (1 = yes, 0 = no) Additional care notes		
Medical Schedule	scheduleID catID staffID appointmentDate Type Status Notes	INT INT INT DATETIME VARCHAR VARCHAR TEXT	4 4 4 - 50 20 -	Unique ID Reference to cat Reference to medical staff Scheduled appointment date/time Type of appointment Status (Scheduled/Completed/Canceled) Additional appointment notes	PK FK FK	Cat User
Daily Tasks	taskID catArea taskName taskType timePeriod startTime endTime status caretakerID	INT VARCHAR VARCHAR ENUM ENUM TIME TIME ENUM INT	4 50 100 - - - - 4	Unique ID for the task Area where the task is performed Name of the task Type of task (Cleaning, Feeding, Monitoring, Medical) Time period (Morning, Afternoon, Evening) Start time of the task End time of the task Task status (Pending, Completed) Reference to the caretaker	PK FK	User

Table 4.1: Data Dictionary

4.2 Software Architecture

The Cat Sanctuary Record Tracker System is designed to support three main user roles (Administrator, Medical Staff, and Caretaker) with specific access permissions and functionalities. The system enables efficient management of cat records, health monitoring, and daily care activities through segregated modules while maintaining data security and accessibility appropriate to each role.

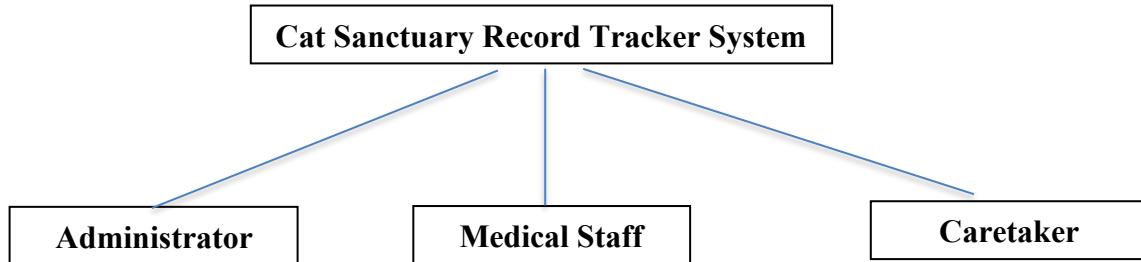


Figure 4.2 Software Architecture

The system allows each team member to work independently within their assigned subsystem while maintaining communication and data sharing capabilities across all modules through the central system. This design ensures streamlined operations, comprehensive record-keeping, and collaborative decision-making.

Subsystem	Team Member
Administrator	Haizatul Nazirah Nizam binti Hairunizam
Medical Staff	Nur Alia Shazwani binti Mohd Nazri
Caretaker	Yogamittran A/L Shanmugam

Table 4.2 Team Member

4.2.1 Administrator System

The Administrator System provides complete control over the Cat Sanctuary Record System. It manages user access, system configurations, and comprehensive data oversight. This subsystem ensures proper system operation and security through user account management and system-wide configuration capabilities.

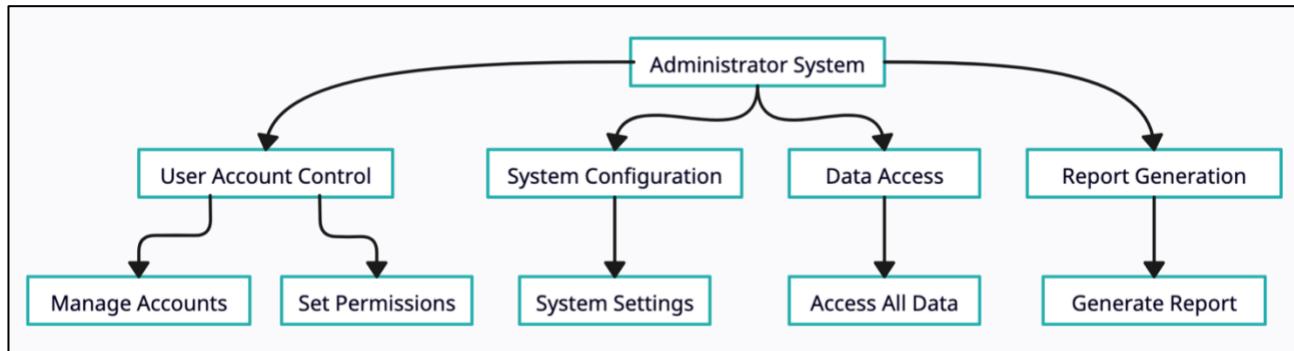


Figure 4.2.1 Administrator System

4.2.2 Medical Staff System

The Medical Staff System focuses on managing all health-related aspects of cats in the sanctuary. It enables comprehensive health record management, medical scheduling, and treatment tracking while allowing staff to monitor daily care activities and generate necessary medical reports.

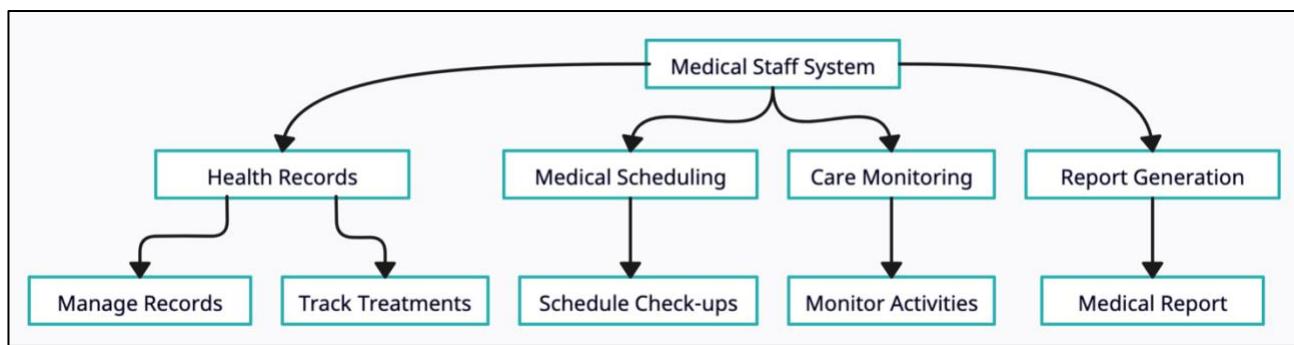


Figure 4.2.2 Medical Staff System

4.2.3 Caretaker System

The Caretaker System manages daily operational activities within the sanctuary. It provides functionality for recording routine care tasks, tracking feeding schedules, and monitoring cat behavior, ensuring proper daily care and observation of the cats.

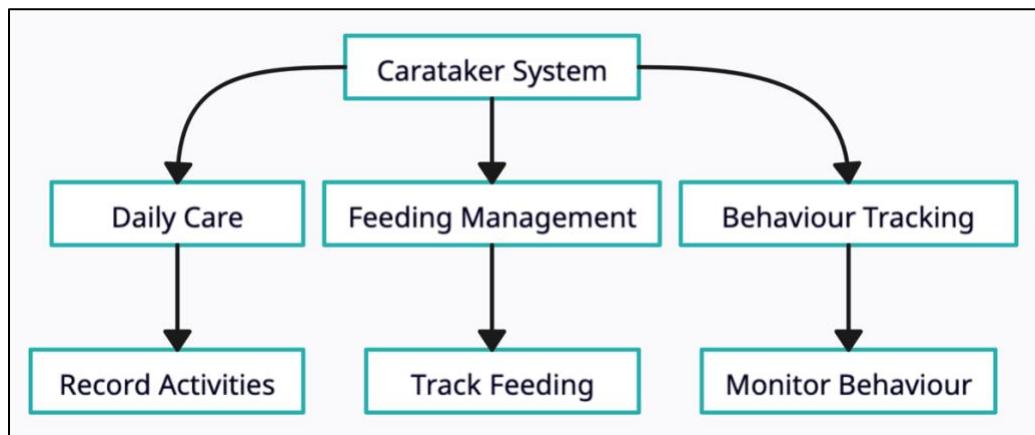


Figure 4.2.3 Caretaker System

4.3 Main Screens

A minimalist login screen is the first function as login page for all users. The design is simple, making it easy for users to access their respective roles in the system.

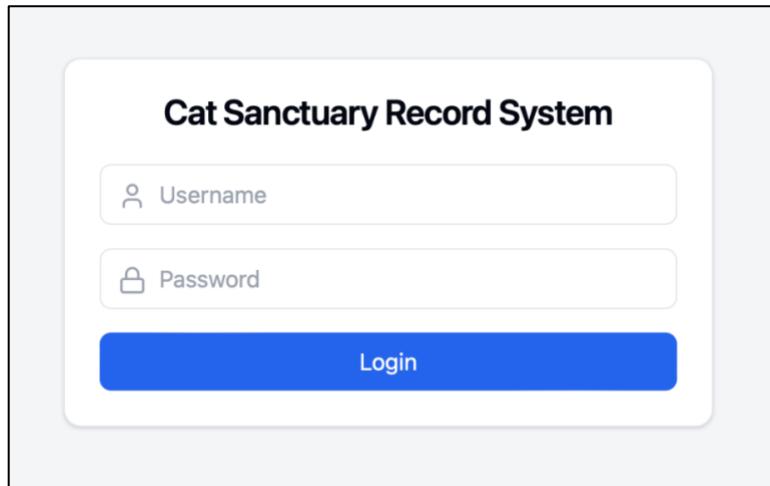


Figure 4.3 Main Screen

4.4 Administrator System Screens

The main control centre that shows four main options: User Account Control, System Configuration, Data Access, and Report Generation. It's organized with clear icons and sections for managing accounts and setting permissions.

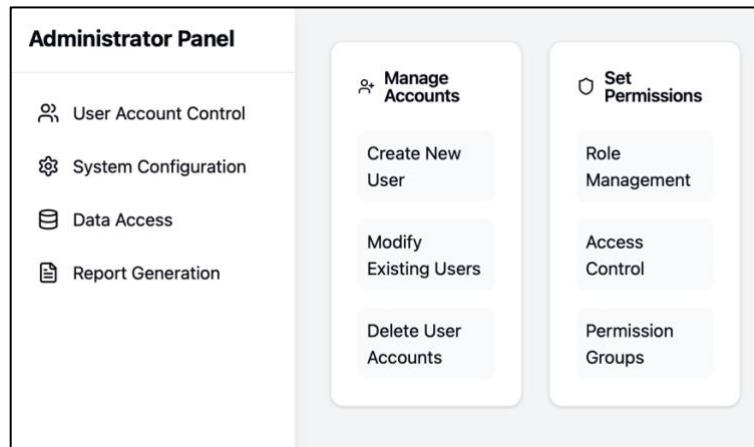


Figure 4.4 Administrator System Screen

4.4.1 User Account Control

This screen lets administrators handle user accounts. They can create new accounts, manage existing users (like Medical Staff and Caretakers), and set permissions. It includes role templates for Administrator, Medical Staff, and Caretaker positions, with options to customize access rights.

User Account Management

Manage Accounts

[Create New Account](#)

Current Users

Medical Staff 1	<input checked="" type="checkbox"/>	<input type="button" value="Delete"/>
Caretaker 1	<input checked="" type="checkbox"/>	<input type="button" value="Delete"/>
Admin 2	<input checked="" type="checkbox"/>	<input type="button" value="Delete"/>

Set Permissions

Role Templates

Administrator	Edit Permissions
Medical Staff	Edit Permissions
Caretaker	Edit Permissions

Custom Permissions

- User Management
- System Configuration
- Report Generation

Figure 4.4.1 User Account Control Screen

4.4.2 Data Access

This interface shows all records related to cat care. Administrators can search, filter, export, and import records. It displays recent records with IDs and types, plus a dashboard showing total records, active cats, medical records, and care records.

Data Access Management

Filter Export Import

Recent Records

ID	Type	Date	Actions
001	Medical	2025-01-14	View
002	Care	2025-01-14	View
003	Feeding	2025-01-13	View

Data Overview

Total Records 1,234	Active Cats 42
Medical Records 856	Care Records 378

Figure 4.4.2 Data Access Screen

4.4.3 Report Generation

A reporting tool where administrators can create different types of reports. It offers pre-made templates for system usage, user activity, and audit reports. There's also a custom report builder where they can select specific dates and metrics to generate tailored reports.

The screenshot displays the 'Report Generation' interface. At the top, there is a header titled 'Report Generation'. Below the header, there are two main sections: 'Report Templates' and 'Custom Report Builder'.

Report Templates: This section contains four report options, each with a 'Generate' button:

- System Usage Report
- User Activity Report
- Access Log Report
- Data Audit Report

Custom Report Builder: This section contains the following fields:

- Report Parameters:** Includes a 'Date Range' field set to '15/01/2025' to '15/01/2025'.
- Report Type:** A dropdown menu currently set to 'System Performance'.
- Include Metrics:** A list of three metrics with checkboxes:
 - User Logins
 - Data Access Logs
 - System Alerts
- Generate Custom Report:** A large blue button at the bottom of the builder section.

Figure 4.4.3 Report Generation Screen

4.5 Medical Staff System Screens

The main interface for medical staff managing cat care. The left side shows four main options: Health Records, Medical Scheduling, Care Monitoring, and Report Generation. Staff can see recent health record updates like Luna's vaccination and Max's health check. The right panel displays today's appointment schedule with time slots for different cats and their procedures, plus an option to schedule new appointments.

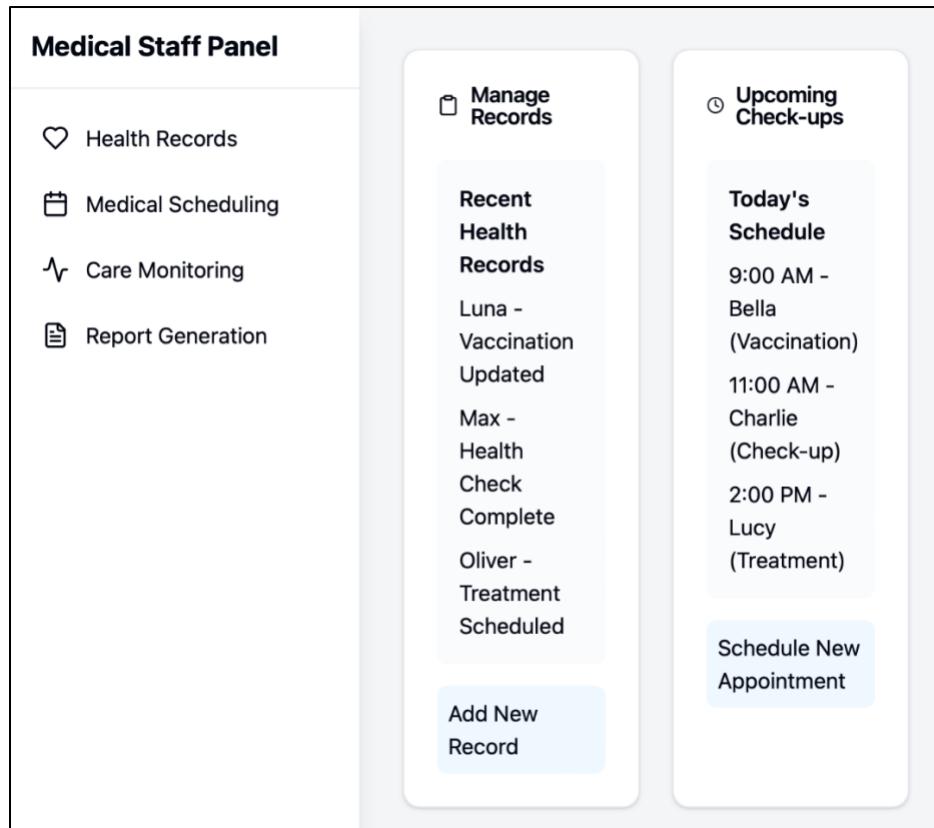


Figure 4.5 Medical Staff System Screen

4.5.1 Health Record

This interface allows medical staff to manage cats' health records efficiently. The screen features a search bar to find cats and a button to add new records. When a cat is selected, it shows their basic info at the top and their medical history in a table below, where staff can view details or schedule follow-ups.

The screenshot shows the 'Health Records Management' interface. At the top, there is a search bar with the placeholder 'Search cats...' and a blue button labeled '+ New Record'. Below the search bar, a cat's basic information is displayed in a row: 'Cat Name: Whiskers', 'ID: CAT-001', and 'Age: 3 years'. Underneath this, a section titled 'Medical History' contains a table with four columns: Date, Type, Description, and Actions. The table has one entry: '2024-01-15' (Date), 'Checkup' (Type), 'Routine health examination' (Description), and two small icons in the Actions column.

Figure 4.5.1 Health Record Screen

4.5.2 Medical Scheduling

Medical scheduling enables staff to manage check-ups efficiently, allowing them to schedule, view, and modify appointments with ease.

The screenshot shows the 'Medical Scheduling' interface. At the top, there are two buttons: 'Schedule Check-up' (blue) and 'View Schedule' (green). Below these, a section titled 'Upcoming Check-ups' displays a table of scheduled appointments. The table has columns for Date, Time, Cat Name, Type, and Actions. There are three entries: '2025-01-15 09:01 Cat 1 Routine Check-up Modify', '2025-01-16 09:02 Cat 2 Routine Check-up Modify', and '2025-01-17 09:03 Cat 3 Routine Check-up Modify'.

Figure 4.5.2 Medical Scheduling Screen

4.5.3 Care Monitoring

Care monitoring offers a comprehensive overview of active treatments, patient status, and progress, ensuring staff can track changes and review recent care activities effectively.

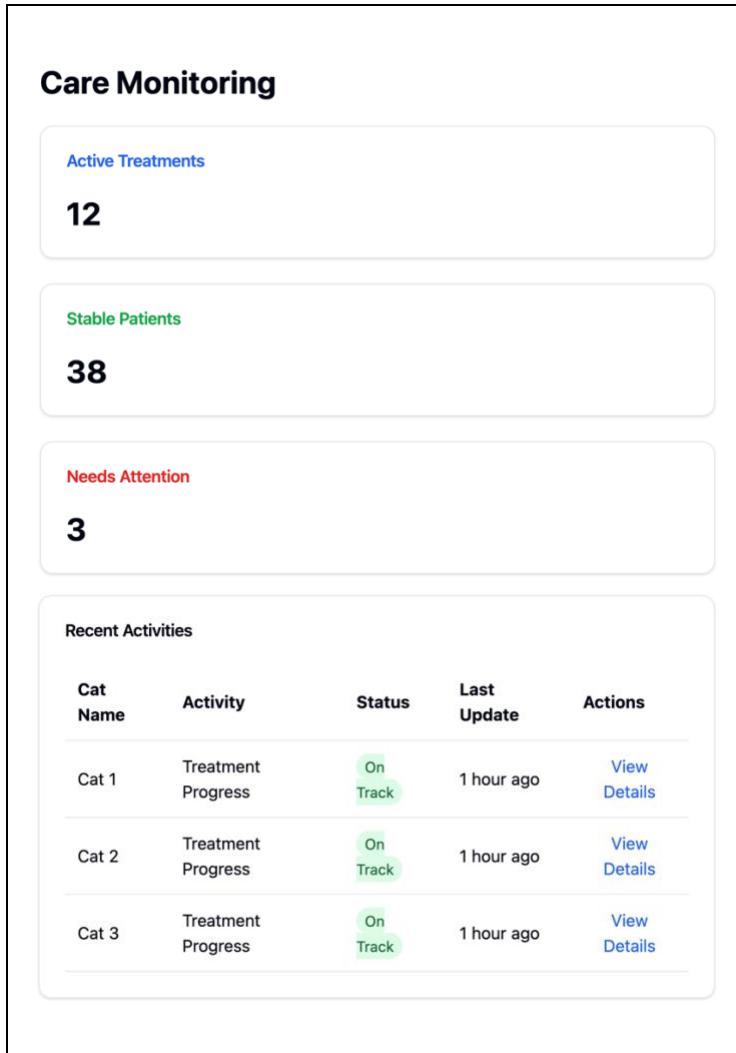


Figure 4.5.3 Care Monitoring Screen

4.5.4 Report Generation

Report Generation enables Medical Staff to generate different types of medical report, access report templates, view and download recent report and also export functionality for data analysis

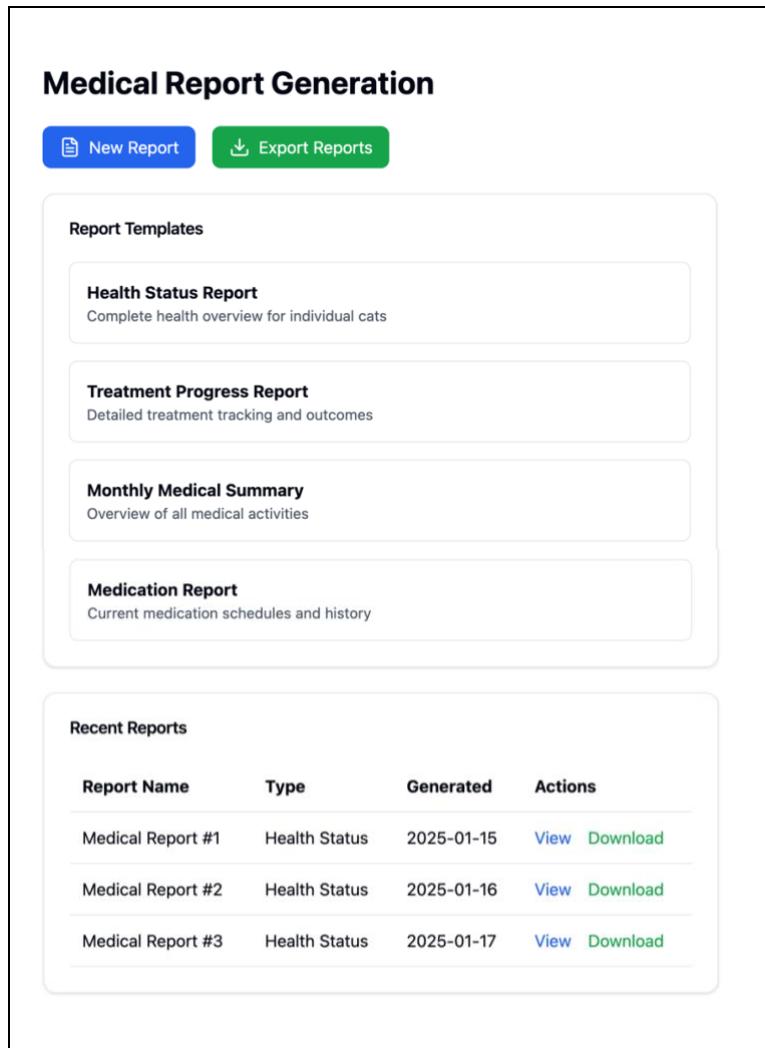


Figure 4.5.4 Report Generation Screen

4.6 Caretaker System Screens

A central hub that provides quick access to all caretaker functions. Shows important stats like today's tasks, upcoming feedings, and alerts. Users can quickly navigate to specific modules and view urgent notifications.

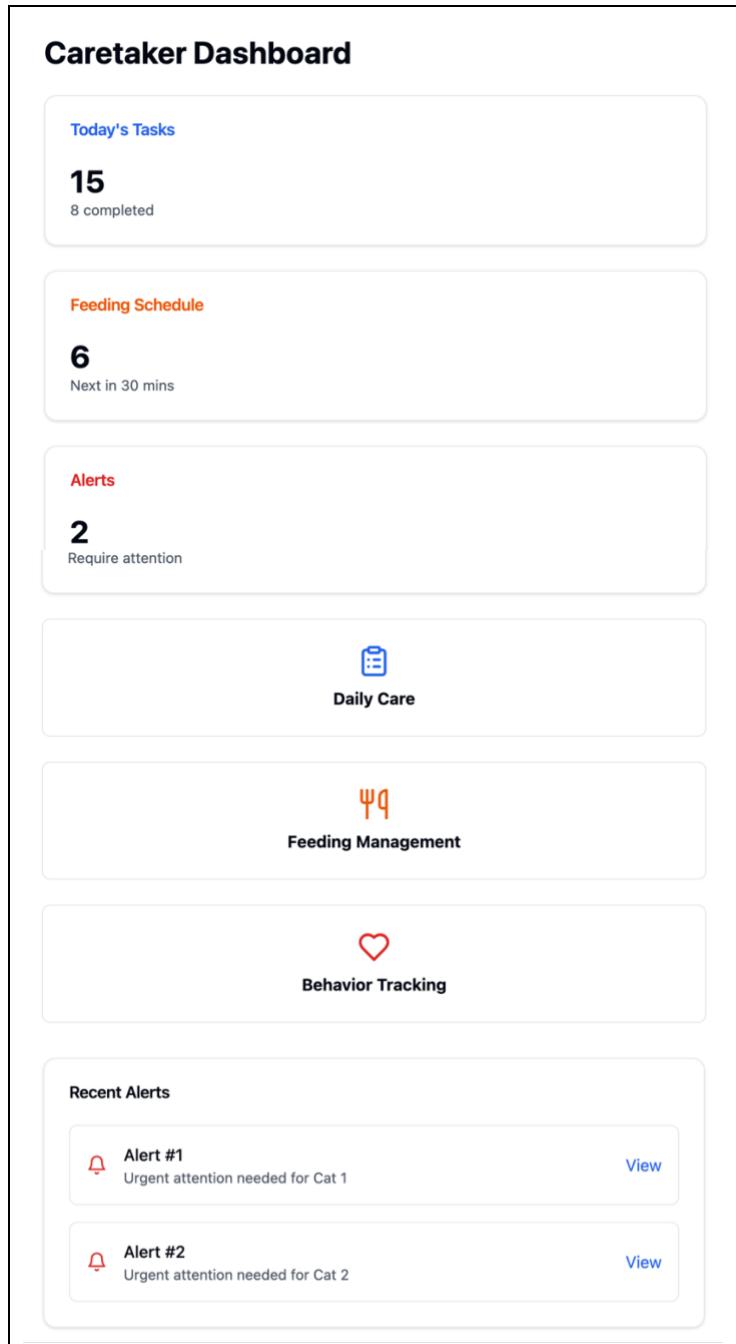


Figure 4.6 Caretaker System Screen

4.6.1 Daily Care

Focuses on day-to-day care tasks organized by time periods. Caretakers can view and complete scheduled tasks, track cleaning activities, and manage routine care responsibilities. The interface provides clear task organization and easy completion tracking.

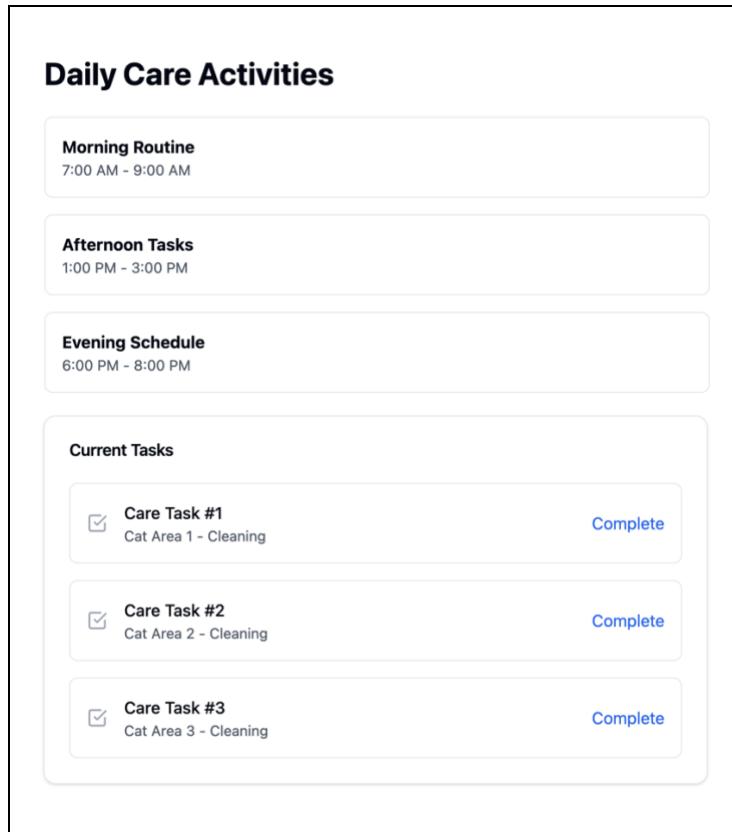


Figure 4.6.1 Daily Care Screen

4.6.2 Feeding Management

Manages all feeding-related activities. Shows upcoming feeding schedules, tracks special diets, and allows caretakers to mark feeding tasks as complete. Includes clear indicators for special dietary requirements and feeding times.

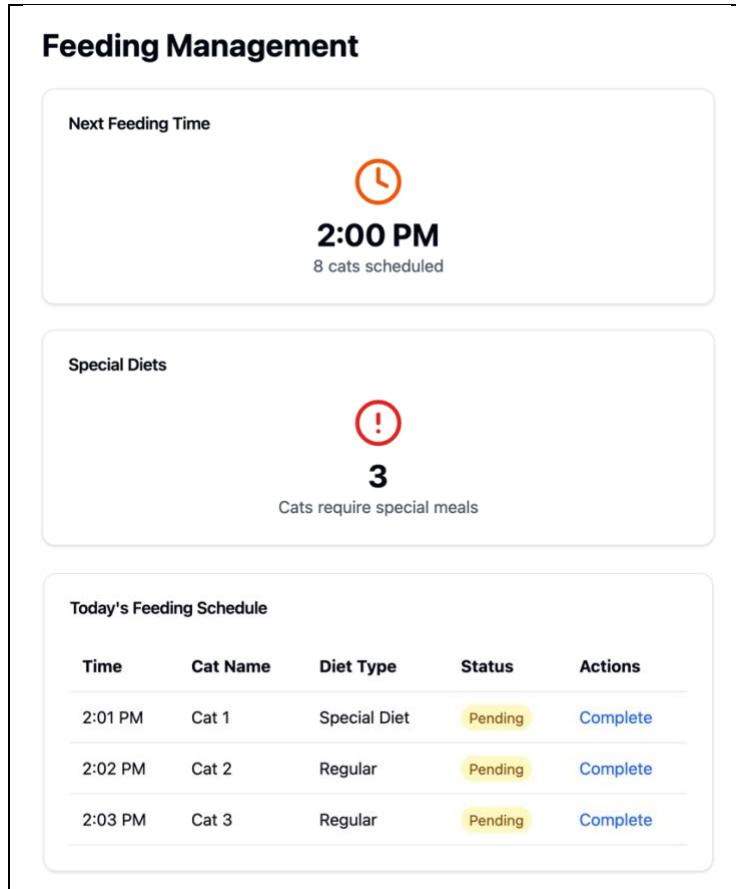


Figure 4.6.2 Feeding Management Screen

4.6.3 Behaviour Tracking

Enables caretakers to record and monitor cat behavior. Features quick access to log new observations or report issues. Displays recent behavioral notes and allows for detailed tracking of social interactions and behavioral patterns.

The screenshot shows a user interface titled "Behavior Tracking". At the top, there are two buttons: "+ New Observation" (blue) and "Report Issue" (red). Below these, a section titled "Recent Observations" displays a table with three rows of data. The columns are labeled "Time", "Cat Name", "Behavior Type", "Notes", and "Actions". The data is as follows:

Time	Cat Name	Behavior Type	Notes	Actions
1 hour ago	Cat 1	Social Interaction	Playing with others	View Details
1 hour ago	Cat 2	Social Interaction	Playing with others	View Details
1 hour ago	Cat 3	Social Interaction	Playing with others	View Details

Figure 4.6.3 Behaviour Tracking Screen

4.7 Main Components

Subsystems	Component
Administrator	<ul style="list-style-type: none">• User Account• Data Access• Generate Report
Medical Staff	<ul style="list-style-type: none">• Health Record Management• Medical Scheduling• Health Monitoring• Generate Medical Report
Caretaker	<ul style="list-style-type: none">• Daily Care activities

Table 4.7 Main Components

4.7.1 Administrator

4.7.1.1 User Account

This component is responsible for ensuring the proper creation, modification, and deletion of user accounts. It performs data validation, manages interactions with the user database, and handles system responses during network interruptions. The component ensures data consistency and security through role-based access control.

When the administrator selects the "Manage User Accounts" option, the system presents the available options for account management. During any modification, the component validates the data input (e.g., checking for unique usernames or proper password formatting). If network connectivity issues occur, the component temporarily saves drafts locally, retrying operations once connectivity is restored.

Activity Diagram

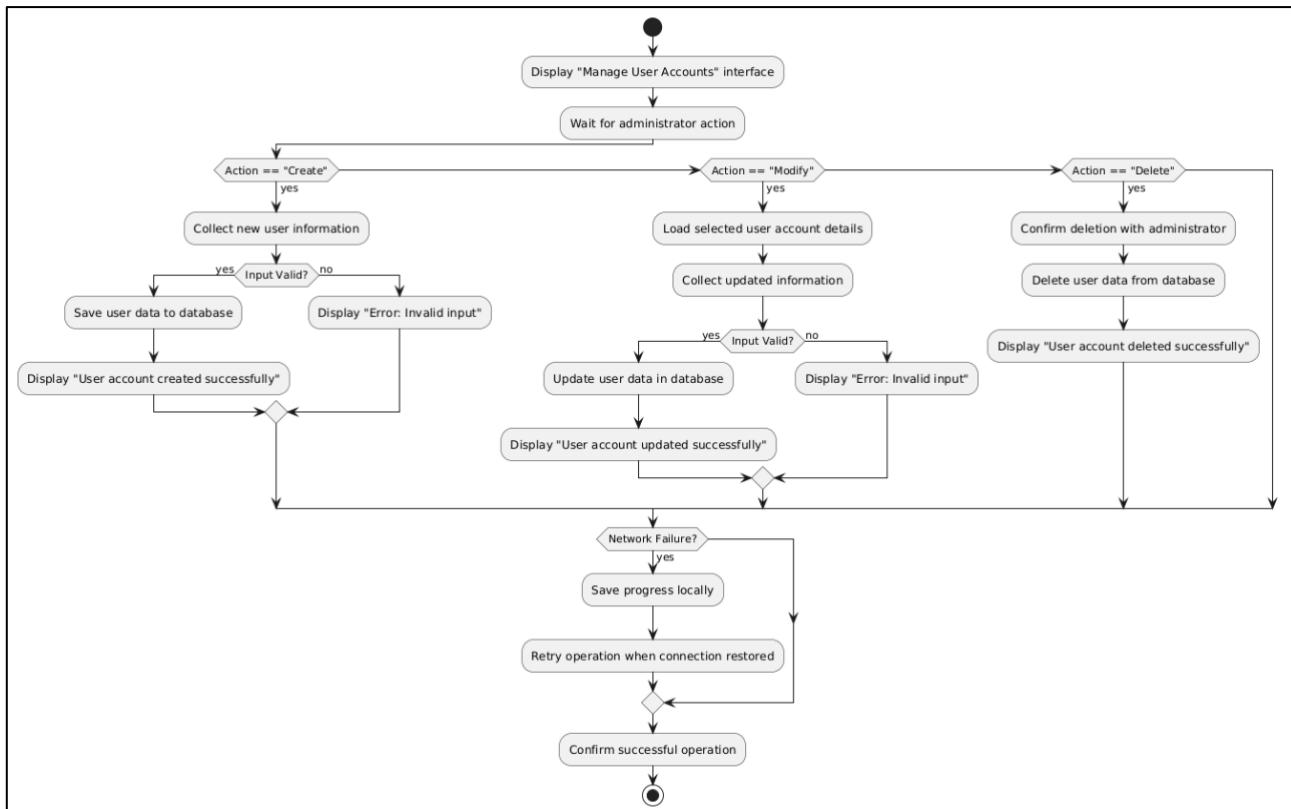


Figure 4.7.1.1 User Account Activity Diagram

Pseudocode

```
FUNCTION ManageUserAccounts()
DISPLAY "Manage User Accounts" interface
ACTION = GET administrator action

IF ACTION == "Create" THEN
userData = COLLECT new user information
IF VALIDATE(userData) THEN
SAVE userData to database
DISPLAY "User account created successfully"
ELSE
DISPLAY "Error: Invalid input"
ENDIF

ELSE IF ACTION == "Modify" THEN
userID = SELECT user account
updatedData = COLLECT updates
IF VALIDATE(updatedData) THEN
UPDATE userID in database
DISPLAY "User account updated successfully"
ELSE
DISPLAY "Error: Invalid input"
ENDIF

ELSE IF ACTION == "Delete" THEN
userID = SELECT user account
CONFIRM deletion
DELETE userID from database
DISPLAY "User account deleted successfully"
ENDIF

IF NETWORK_FAILURE THEN
SAVE progress locally
RETRY operation when connection restored
ENDIF
END FUNCTION
```

4.7.1.2 Data Access

This component is responsible for managing cat records, including viewing, editing, and deleting data entries. It handles data validation, manages database interactions, and maintains system operation during network disruptions. The component ensures data integrity through proper access control and validation checks.

When the administrator selects the cat records option, the system displays all available records for management. During any modification, the component validates user input and handles different scenarios appropriately. If network connectivity is lost, the system saves drafts locally and automatically retries operations once the connection is restored. For invalid data entries, the system provides error messages and returns users to the data entry interface, ensuring data accuracy and system reliability.

Activity Diagram

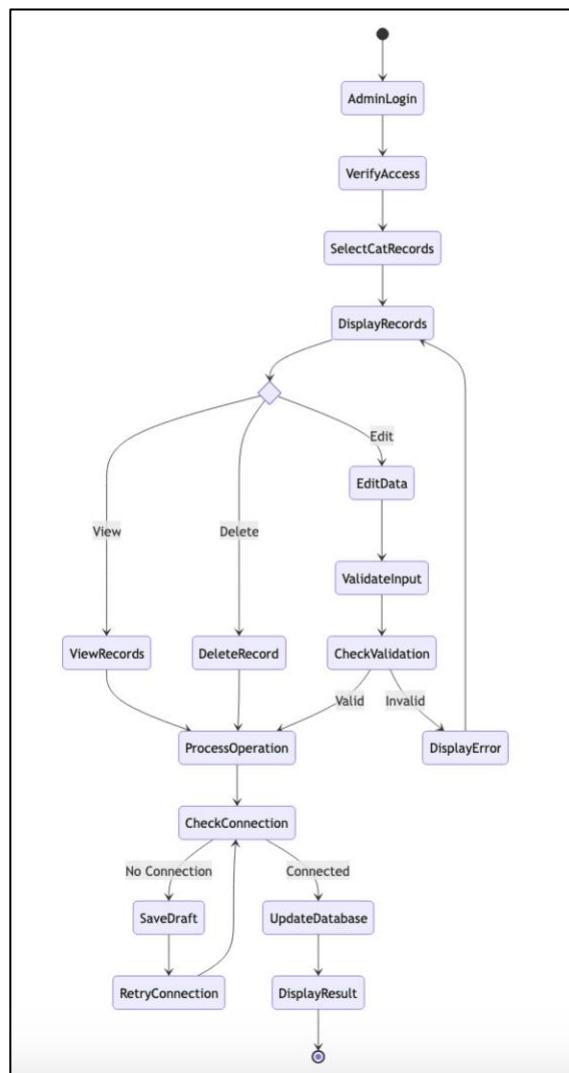


Figure 3.5.2 Data Access Activity Diagram

Pseudocode

```
BEGIN
    // Check admin access
    IF NOT checkAdminLogin() THEN
        RETURN "Access denied"
    END IF

    // Display records
    displayCatRecords()

    // Get user operation choice
    operation = getUserChoice() // View/Edit/Delete

    SWITCH operation DO
        CASE "View":
            viewRecords()

        CASE "Edit":
            data = getEditedData()
            IF isValidData(data) THEN
                IF isConnected() THEN
                    updateDatabase(data)
                    displayResult("Update successful")
                ELSE
                    saveDraft(data)
                    displayResult("Saved as draft")
                END IF
            ELSE
                displayError("Invalid input")
            END IF

        CASE "Delete":
            IF isConnected() THEN
                deleteRecord()
                displayResult("Deletion successful")
            ELSE
                saveDraft("delete")
                displayResult("Saved as draft")
            END IF
    END SWITCH
END
```

4.7.1.3 Reports

This component is responsible for managing report generation, viewing, and exporting functionality within the system. It handles authentication, manages report processing, and provides multiple paths for accessing report data. The component ensures secure access through proper administrator verification and maintains organized report management workflows.

When the administrator accesses the reports section, the system displays all available report options for interaction. During report generation, the component processes the selected report type and presents the results for viewing. The system supports three main operational paths: generating specific reports with type selection, viewing comprehensive lists of all reports, and exporting report data for external use. Each pathway includes appropriate system processing and display steps, ensuring efficient report handling and data accessibility. The workflow concludes when the administrator successfully completes their intended report operation, whether that's viewing generated reports or downloading exported files.

Activity Diagram

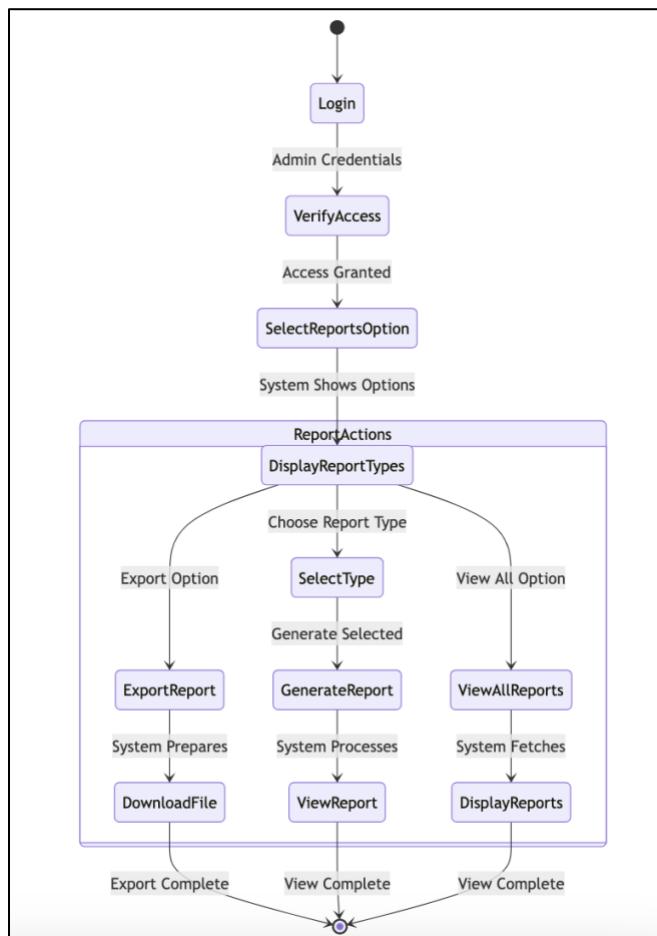


Figure 3.5.3 Reports Activity Diagram

Pseudocode

```
BEGIN

function handleReportSystem():
    // Authentication
    credentials = getAdminCredentials()
    if not verifyAccessRights(credentials):
        return ACCESS_DENIED

    // Main Reports Menu
    while true:
        option = displayReportOptions() // "Generate", "View All", "Export"

        switch(option):
            case "Generate":
                reportTypes = getAvailableReportTypes()
                displayReportTypes(reportTypes)
                selectedType = getUserSelection()
                report = generateReport(selectedType)
                displayReport(report)

            case "View All":
                allReports = fetchAllReports()
                displayReports(allReports)

            case "Export":
                exportOption = getExportOption()
                exportFile = processExportRequest(exportOption)
                provideExportFile(exportFile)

            case "Exit":
                return SUCCESS

function generateReport(type):
    rawData = fetchDataForReport(type)
    return processReportData(rawData)

function fetchAllReports():
    reports = []
    reports = queryReportDatabase()
    return reports

function processExportRequest(option):
    data = gatherExportData(option)
    return prepareExportFile(data)
END
```

4.7.2 Medical Staff

4.7.2.1 Health Record Management

This component is designed for veterinary medical staff to efficiently manage and maintain health records for cats. This component allows staff to view a cat's medical history, add new records, or update existing ones, ensuring that all health-related information is accurate and up to date. The system also incorporates safeguards, such as flagging incomplete information, and prioritizes emergency cases by notifying relevant staff immediately. This ensures streamlined workflows while maintaining data integrity and supporting urgent medical scenarios.

Activity Diagram

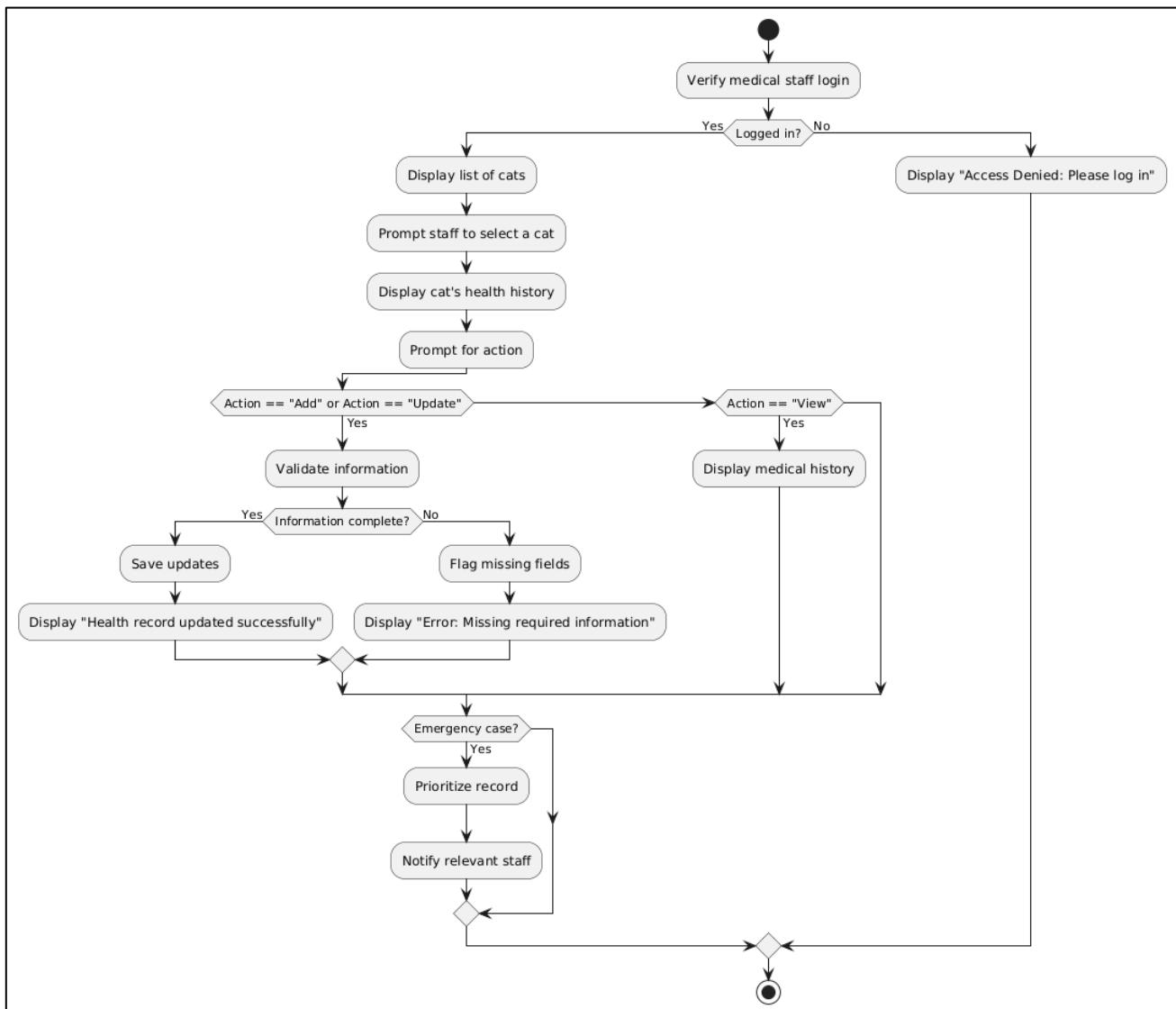


Figure 4.7.2.1 Health Record Management Activity Diagram

Pseudocode

```
BEGIN
    IF Medical Staff is logged in THEN
        DISPLAY list of cats in database
        PROMPT Staff to select a cat

        DISPLAY selected cat's health history
        PROMPT Staff to choose an action:
            1. Add new health record
            2. Update existing record
            3. View detailed medical history

        IF Action is "Add" OR "Update" THEN
            VALIDATE entered information
            IF Information is complete THEN
                SAVE updates to database
                DISPLAY "Health record updated successfully"
            ELSE
                FLAG incomplete fields
                DISPLAY "Error: Missing required information"
            END IF
        END IF

        IF Emergency case THEN
            PRIORITIZE record
            NOTIFY relevant staff
        END IF
    ELSE
        DISPLAY "Access Denied: Please log in"
    END IF
END
```

4.7.2.2 Medical Scheduling

The component is designed to assist medical staff in organizing and managing appointments for checkups and treatments. This system allows staff to view available time slots, schedule new appointments, modify existing ones, or cancel appointments. It ensures efficiency by handling scheduling conflicts, offering alternative time slots, and accommodating emergency scenarios. In emergencies, the system overrides normal scheduling rules, prioritizing urgent cases while notifying affected appointments to maintain clear communication and operational flow.

Activity Diagram

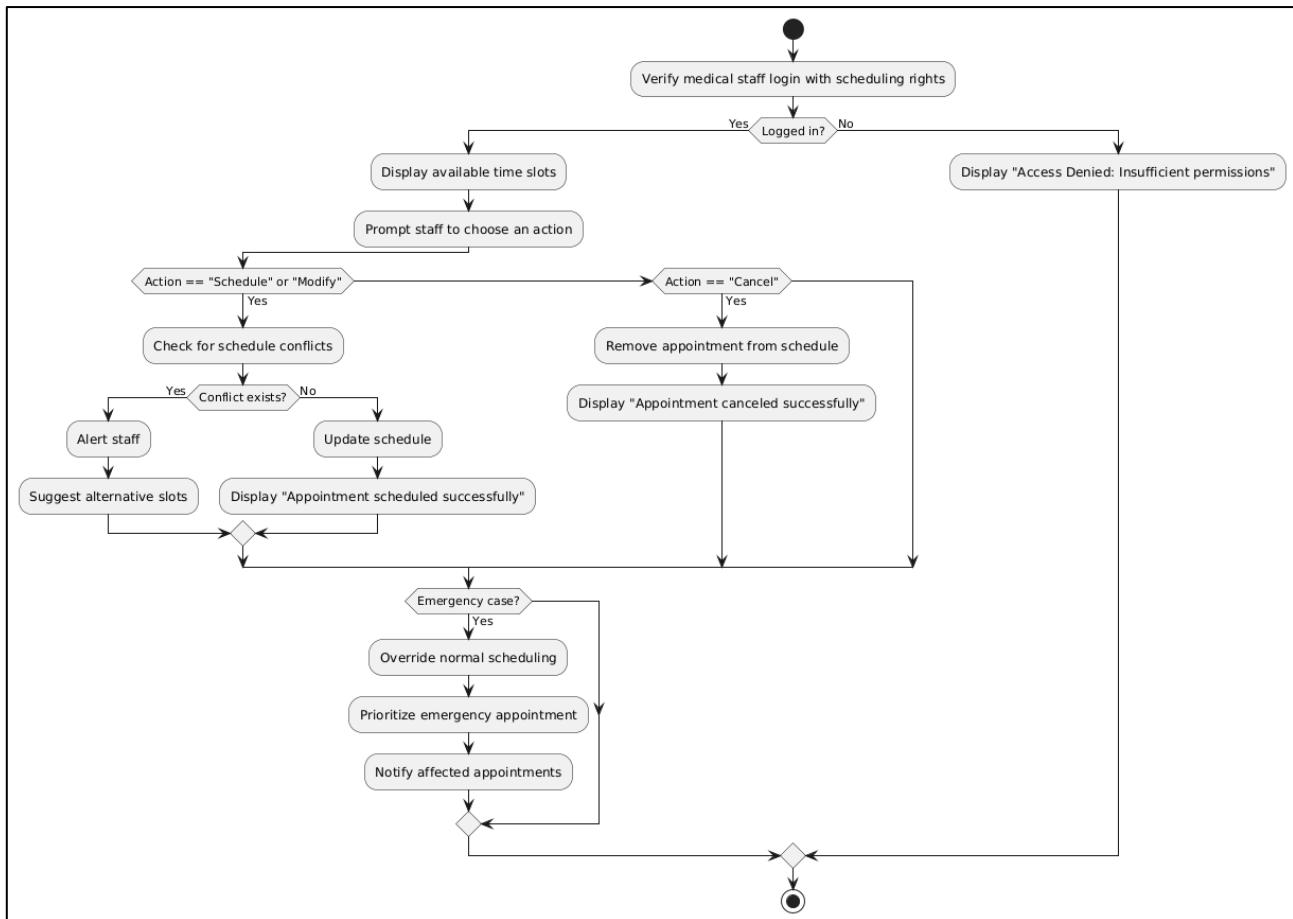


Figure 4.7.2.2 Medical Scheduling Activity Diagram

Pseudocode

```
BEGIN
    IF Medical Staff is logged in with scheduling rights, THEN
        DISPLAY available time slots
        PROMPT Staff to choose an action:
            1. Schedule new appointment
            2. Modify existing appointment
            3. Cancel appointment

        IF Action is "Schedule" OR "Modify" THEN
            CHECK for schedule conflicts
            IF Conflict exists THEN
                ALERT Staff
                SUGGEST alternative slots
            ELSE
                UPDATE schedule with new details
                DISPLAY "Appointment scheduled successfully"
            END IF
            ELSE IF Action is "Cancel" THEN
                REMOVE appointment from schedule
                DISPLAY "Appointment canceled successfully"
            END IF

            IF Emergency case THEN
                OVERRIDE normal scheduling
                PRIORITIZE emergency appointment
                NOTIFY affected appointments
            END IF
            ELSE
                DISPLAY "Access Denied: Insufficient permissions"
            END IF
        END IF
    END
```

4.7.2.3 Health Monitoring

This component is designed to assist medical staff in tracking and analyzing the health status of cats. This system provides tools to view current health metrics, track progress in ongoing treatments, and generate comprehensive health reports. It ensures timely alerts for abnormal health indicators, prompting immediate attention, and flags missing data to maintain the accuracy of monitoring. By centralizing and automating health tracking, the component supports better decision-making and enhances care quality.

Activity Diagram



Figure 4.7.2.3 Health Monitoring Activity Diagram

4.7.2.4 Medical Report

This component manages report generation, viewing, and exporting for medical staff while ensuring secure access and efficient report handling. It processes report requests, facilitates data retrieval, and maintains organized workflows. When medical staff access the reports section, the system presents available options. They can generate specific reports by selecting a type, view a comprehensive list of all reports, or export data for external use. Each process includes authentication, system validation, and structured processing to ensure accuracy and accessibility. The workflow concludes when the medical staff successfully views or exports the required reports.

Activity Diagram

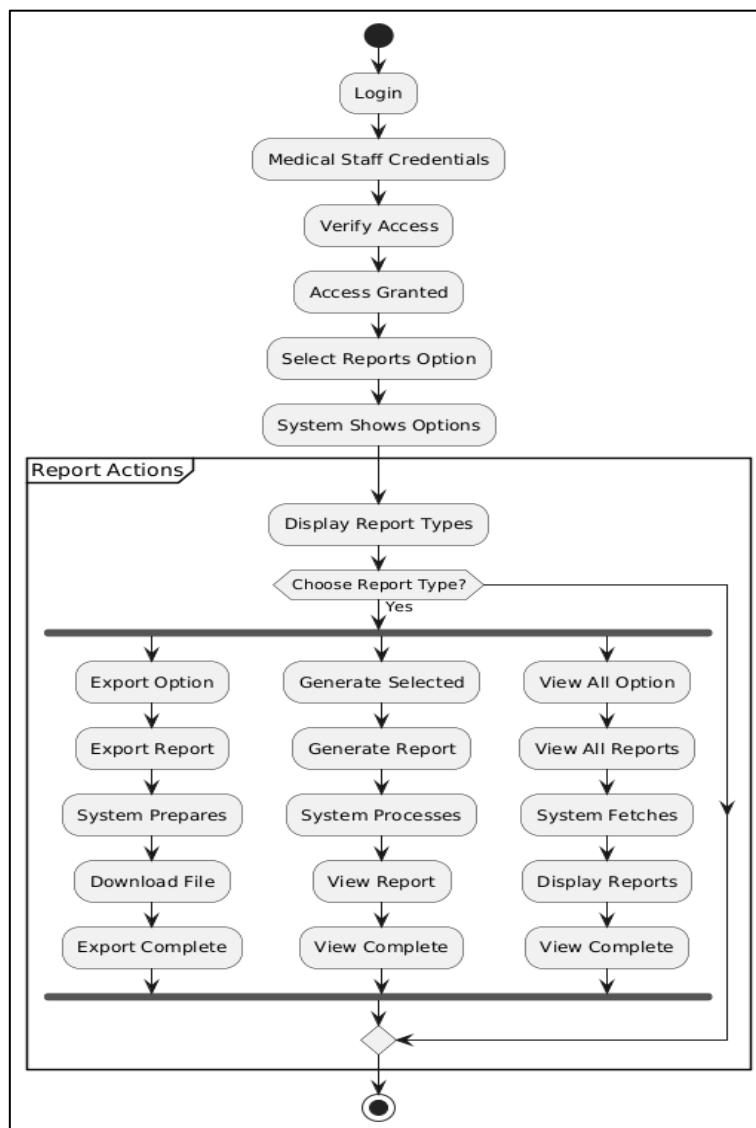


Figure 4.7.2.3 Medical Report Activity Diagram

Pseudocode

```
BEGIN
    IF Medical Staff is logged in with report access rights, THEN
        DISPLAY report options:
            1. Generate report
            2. View all reports
            3. Export report
            4. Exit
        IF Action is "Generate" THEN
            DISPLAY available report types
            PROMPT Staff to select a report type
            GENERATE report based on selected type
            DISPLAY generated report
        ELSE IF Action is "View All" THEN
            FETCH all reports from database
            DISPLAY all reports
        ELSE IF Action is "Export" THEN
            PROMPT Staff to select export option
            PROCESS export request
            PROVIDE export file to Staff
        ELSE IF Action is "Exit" THEN
            EXIT report system
        END IF
    ELSE
        DISPLAY "Access Denied: Insufficient permissions"
    END IF
END
```

4.7.3 Caretaker

4.7.3.1 Daily Care Activities

This component is designed to streamline the process of managing and recording daily care tasks for cats. Caretakers can log essential activities such as feeding times, cleaning routines, and behavioral observations. The system ensures accountability by flagging overdue tasks and sending reminders while promoting cat welfare by alerting medical staff about unusual behaviors. By providing a structured interface for daily care management, this component fosters consistent and reliable care routines.

Activity Diagram

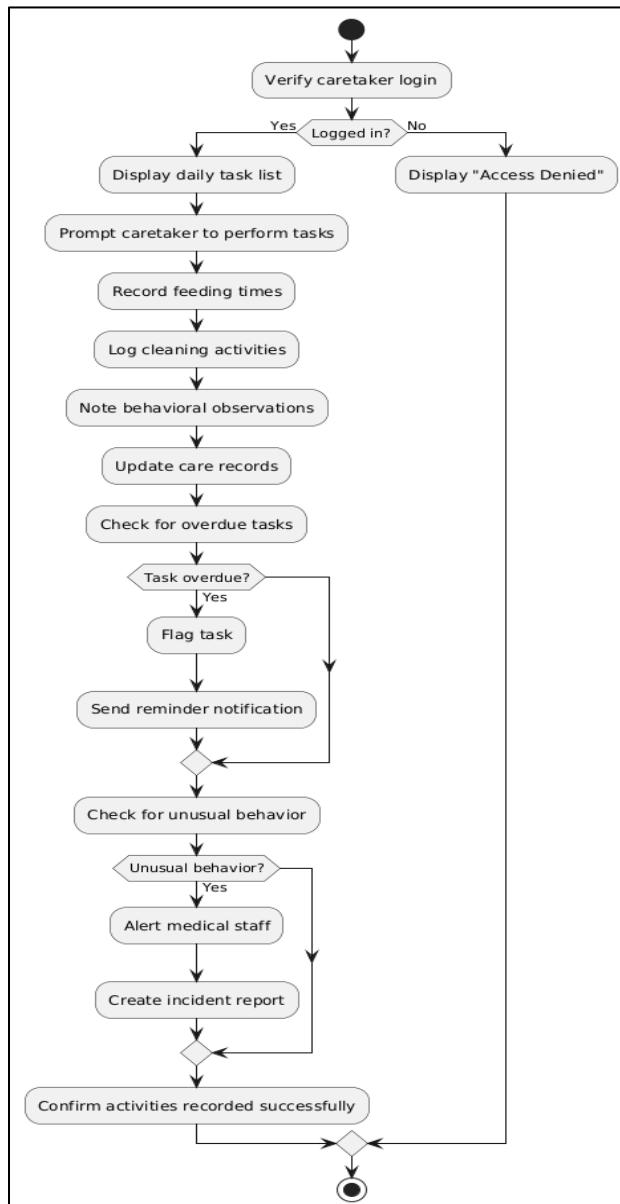


Figure 4.7.3.1 Daily Care Activities Activity Diagram

Pseudocode

```
BEGIN
IF Caretaker is logged in THEN
    DISPLAY daily task list
    PROMPT Caretaker to:
        1. Record feeding times
        2. Log cleaning activities
        3. Note behavioral observations

    FOR each task performed:
        UPDATE care records

    CHECK for missed activities
    IF Overdue task THEN
        FLAG task
        GENERATE reminder notification
    END IF

    CHECK for unusual behavior
    IF Unusual behavior observed THEN
        ALERT medical staff
        CREATE incident report
    END IF

    DISPLAY "Daily care activities recorded successfully"
ELSE
    DISPLAY "Access Denied: Please log in"
END IF
END
```

4.8 Deployment Diagram

The deployment diagram illustrates the Cat Sanctuary Record Tracker System's architecture. Client devices (web browsers and mobile devices) interact with the system via HTTPS through a web server. The application server manages three core modules: Admin, Medical, and Care, handling different functionalities. The application connects to a file server for storage and a database server that includes a primary database and a backup database for data integrity. This setup ensures secure, efficient, and reliable system operation.

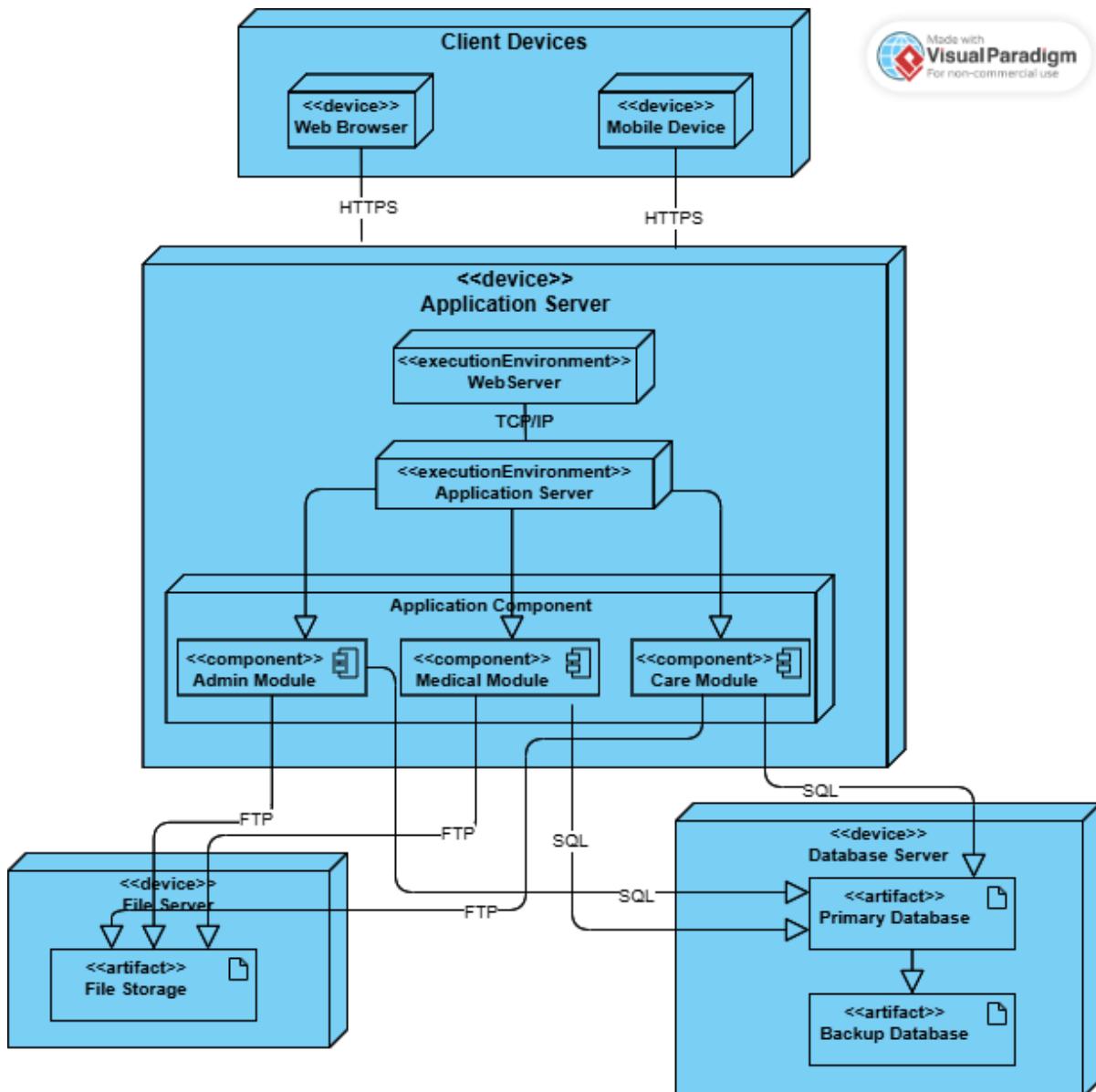


Figure 4.8 Deployment Diagram

5 Implementation

5.1 Development Environment

The development environment for the Cat Sanctuary Record Tracker System includes the following tools and technologies:

- **Programming Language:** PHP
- **Database:** MySQL
- **Frontend:** HTML, CSS, JavaScript (Bootstrap for styling)
- **Web Server:** Apache
- **Version Control:** Git

5.2 Software Integration

The system integrates three main subsystems: Administrator, Medical Staff, and Caretaker. Data flows between these subsystems through a centralized MySQL database. PHP scripts manage the backend logic, while HTML, CSS, and JavaScript are used for the frontend. The integration strategy relies on PHP's MySQL for secure and efficient database interactions, ensuring seamless data exchange and real-time updates across the system. This approach provides a robust and responsive platform for managing sanctuary operations.

Application	File	Description
Authentication	login.php	User authentication page.
	logout.php	Logs users out of the system.
User Management	add_user.php	Creates new user accounts in the system.
	edit_user.php	Edits user account details.
	delete_user.php	Deletes user accounts.
Cat Management	add_cat.php	Adds new cat profiles to the system.
	edit_cat.php	Edits cat profile details.
	delete_cat.php	Removes a cat's profile from the system.
Medical Scheduling	add_appointment.php	Handles adding new medical appointments.
	edit_appointment.php	Modifies medical appointment details.
	delete_appointment.php	Removes scheduled medical appointments.

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Health Record Management	add_medical_record.php	Stores medical treatment history for cats.
	edit_medical_record.php	Modifies medical history details.
	delete_medical_record.php	Deletes health records for cats.
Behavior Tracking	add_behavior.php	Records behavioral observations for cats.
	edit_behavior.php	Updates recorded behavioral data.
	delete_behavior.php	Deletes recorded behavioral data.
Feeding Management	add_feeding.php	Manages feeding schedules and records.
	edit_feeding.php	Updates feeding records.
	delete_feeding.php	Deletes feeding records.
Daily Tasks	add_task.php	Adds daily tasks for caretakers.
	update_task.php	Updates caretaker daily tasks.
Reporting & Analytics	generate_report.php	Generates reports on system data.
System Configuration	config.php	Contains database connection settings.
	test_db.php	Tests database connectivity.
System Overview	dashboard.php	Main dashboard displaying system statistics.
System Functions & Logs	functions.php	Contains reusable system functions.
	errors.log	Stores system error logs.
System Entry	index.php	Main entry point for the application.

Table 5.2 Software Integration Table

5.3 Database

The database schema includes tables for users, cats, health records, daily care activities, and medical schedules. The relationships between these tables are defined using foreign keys, ensuring data integrity and consistency.

Database Schema:

```
CREATE TABLE User (
    UserID INT AUTO_INCREMENT PRIMARY KEY,
    Username VARCHAR(50) NOT NULL,
    Password VARCHAR(255) NOT NULL,
    Role ENUM('Admin', 'Medical', 'Caretaker') NOT NULL
);

CREATE TABLE Cat (
    CatID INT AUTO_INCREMENT PRIMARY KEY,
    Name VARCHAR(50) NOT NULL,
    Breed VARCHAR(30),
    DateOfBirth DATE,
    IntakeDate DATE
);

CREATE TABLE HealthRecord (
    RecordID INT AUTO_INCREMENT PRIMARY KEY,
    CatID INT,
    StaffID INT,
    Date DATETIME,
    Type VARCHAR(30),
    Description VARCHAR(50),
    Treatment VARCHAR(50),
    Medications VARCHAR(50),
    NextCheckup DATE,
    FOREIGN KEY (CatID) REFERENCES Cat(CatID),
    FOREIGN KEY (StaffID) REFERENCES User(UserID)
);

CREATE TABLE DailyCare (
    CareID INT AUTO_INCREMENT PRIMARY KEY,
    CatID INT,
    CaretakerID INT,
    Date DATE,
    FeedingTime TIME,
    FoodType VARCHAR(50),
    FoodAmount DECIMAL(5,2),
);
```

```
Behavior TEXT,  
FOREIGN KEY (CatID) REFERENCES Cat(CatID),  
FOREIGN KEY (CaretakerID) REFERENCES User(userID)  
);
```

6 Testing

6.1 Testing Strategy

The testing strategy for the Cat Sanctuary Record Tracker System involves unit testing, integration testing, and acceptance testing. The focus of this report is on acceptance testing, which ensures that the system meets the requirements for each user role: Administrator, Medical Staff, and Caretaker. The acceptance testing was conducted in a controlled environment using sample data to simulate real-world usage.

6.2 Test Data

- Administrator: Sample user accounts, sample cats, sample reports.
- Medical Staff: Sample health records, medical schedules, and health monitoring data.
- Caretaker: Sample daily care activities, feeding schedules, and behavioral observations.

6.3 Acceptance Testing

The acceptance testing was conducted by the respective team members for each subsystem. Below are the test cases, execution steps, and results for each role:

Administrator Subsystem						
Test Case ID	Feature	Description	Expected Result	Actual Result	Pass/Fail	Remarks
TC01	User Login	Verify user login with valid credentials	User successfully logs in	User logs in successfully	Pass	No issues encountered.
TC02	Add a new user	Create new user account	New user account is created successfully.	New user account is created successfully.	Pass	No issues encountered.
TC03	Edit a user	Modify an existing user account	User account is updated successfully.	User account is updated successfully.	Pass	No issues encountered.
TC04	Delete a user	Delete a user account	User account is deleted successfully.	User account is deleted successfully.	Pass	No issues encountered.
TC05	Add a new cat	Add cat in the cat records	New cat is added successfully.	New cat is added successfully	Pass	No issues encountered.
TC06	Edit a cat	Modify an existing cat record.	Cat records are updated successfully.	Cat records are updated successfully.	Pass	No issues encountered.
TC07	Delete a cat	Delete a cat record.	Cat records are deleted successfully.	Cat records are deleted successfully.	Pass	No issues encountered.
TC08	Generate a report	Generate a health report	Report is generated successfully.	Report is generated successfully.	Pass	No issues encountered
TC09	Export a report	Export a report to csv file	Report is generated successfully.	Report is generated successfully.	Pass	No issues encountered

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Medical Staff Subsystem						
Test Case ID	Feature	Description	Expected Result	Actual Result	Pass/Fail	Remarks
TC11	Add a record	Add a new health record	New health record is added successfully.	New health record is added successfully.	Pass	No issues encountered.
TC12	Edit a record	Update an existing health record	Health record is updated successfully.	Health record is updated successfully.	Pass	No issues encountered.
TC13	Delete a record	Delete a health record.	Health record is deleted successfully.	Health record is deleted successfully.	Pass	No issues encountered.
TC14	Add an appointment	Schedule a medical appointment	Appointment is scheduled successfully.	Appointment is scheduled successfully.	Pass	No issues encountered.
TC15	Edit an appointment	Modify an existing appointment.	Appointment is updated successfully.	Appointment is updated successfully.	Pass	No issues encountered.
TC16	Delete an appointment	Delete an appointment	Appointment is deleted successfully.	Appointment is deleted successfully.	Pass	No issues encountered.
TC17	Total Cats	Verify total number of cats displayed	Number matches database count	Number matches database count	Pass	No issues encountered.
TC18	Active Treatments	Ensure active treatments count updates correctly	Matches active treatment records	Matches active treatment records	Pass	No issues encountered.
TC19	Scheduled Tasks	Verify today's scheduled tasks display accurately	List matches database records	List matches database records	Pass	No issues encountered.
TC20	Generate a report	Generate a medical report	Report is generated successfully.	Report is generated successfully.	Pass	No issues encountered

Caretaker Subsystem						
Test Case ID	Feature	Description	Expected Result	Actual Result	Pass/Fail	Remarks
TC21	Daily Tasks	Add a task with valid details	Task appears in the list	Task appears in the list	Pass	No issues encountered.
TC22	Daily Tasks	Edit a task	Task updates successfully	Task updates successfully	Pass	No issues encountered.
TC23	Daily Tasks	Delete a task	Task is removed from the list	Task is removed from the list	Pass	No issues encountered.
TC24	Daily Tasks	Mark a task as completed	Status updates correctly	Status updates correctly	Pass	No issues encountered.
TC25	Feeding Records	Add a feeding record	Record appears in the list	Record appears in the list	Pass	No issues encountered.
TC26	Feeding Records	Edit a feeding record	Record updates correctly	Record updates correctly	Pass	No issues encountered.
TC27	Feeding Records	Delete a feeding record	Record is removed from the list	Record is removed from the list	Pass	No issues encountered.
TC28	Behavior Notes	Add a behavior note	Note appears in the list	Note appears in the list	Pass	No issues encountered.
TC29	Behavior Notes	Edit a behavior note	Note updates correctly	Note updates correctly	Pass	No issues encountered.
TC30	Behavior Notes	Delete a behavior note	Note is removed from the list	Note is removed from the list	Pass	No issues encountered.

Table 6.3 Acceptance Test Table

6.4 Test Results

All test cases were executed successfully, and the system met the acceptance criteria for all user roles.

6.5 Issues and Resolutions

No major issues were identified during testing.

6.6 Conclusion

The acceptance testing confirmed that the Cat Sanctuary Record Tracker System is fully functional and ready for deployment.

7 Sample Screens

7.1 Main Screen

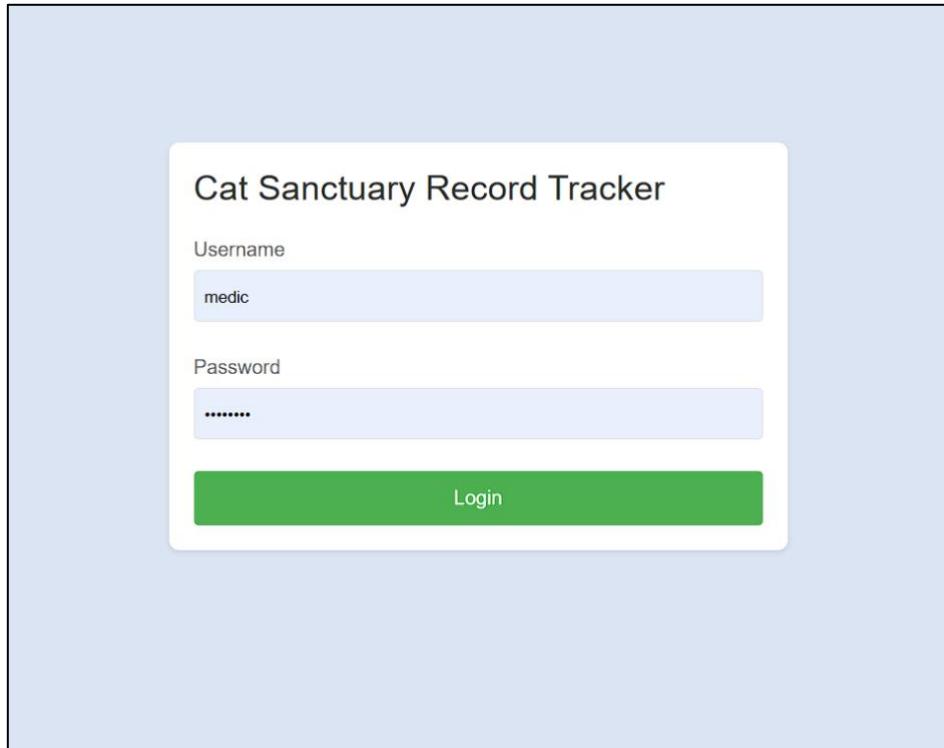


Figure 7.1 Main Screen

The **Cat Sanctuary Record Tracker** login screen allows authorized users to access the system by entering their **username** and **password**, followed by clicking the green **Login** button. Three types of users can log in: **Administrators**, who manage user roles, system settings, and overall operations; **Medical Staff (Medics)**, who handle medical records, update health data, and generate reports; and **Caretakers**, who track daily care activities, feeding schedules, and the general well-being of the cats. Each user role has specific access permissions based on their responsibilities. If incorrect credentials are entered, access will be denied.

7.1.1 Subsystem 1 Screens (Administrator)

7.1.1.1 User Account Control

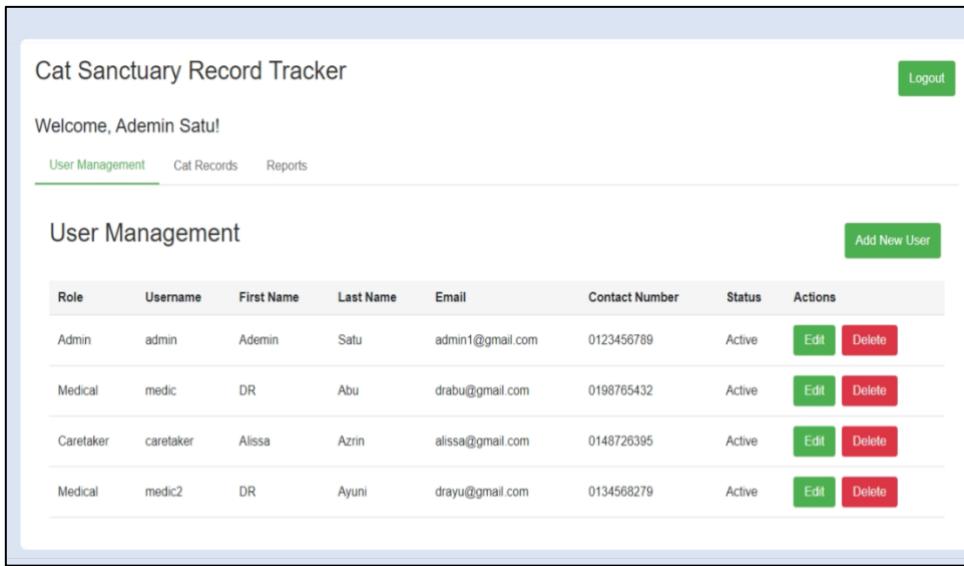


Figure 7.2 User Account Control

This screen allows the administrator to manage user accounts. The administrator can view a list of users, including their roles, usernames, contact information, and account status. There are options to **Edit** or **Delete** users, as well as an **Add New User** button for registering new accounts.

7.1.1.2 Cat Records

The screenshot shows the 'Cat Sanctuary Record Tracker' application. At the top, there is a header with the title 'Cat Sanctuary Record Tracker' and a 'Logout' button. Below the header, a welcome message 'Welcome, Ademin Satu!' is displayed. A navigation bar with three items: 'User Management', 'Cat Records' (which is underlined, indicating it's the active page), and 'Reports'. The main content area is titled 'Cat Records' and contains a table of registered cats. The table has columns for Name, Date of Birth, Breed, Color, Gender, Register Date, Status, and Actions. Each row represents a cat with its details and edit/delete buttons. The cats listed are Milo, Luna, Snowball, Muffin, Loki, and Iqi.

Name	Date of Birth	Breed	Color	Gender	Register Date	Status	Actions
Milo	2023-05-14	Siamese	Cream & Brown	Male	2024-12-01	Active	<button>Edit</button> <button>Delete</button>
Luna	2024-08-30	Maine Coon	Gray	Female	2025-01-15	Active	<button>Edit</button> <button>Delete</button>
Snowball	2020-06-22	Persian	White	Female	2024-10-23	Active	<button>Edit</button> <button>Delete</button>
Muffin	2024-04-30	Scottish Fold	Grey	Male	2024-01-15	Active	<button>Edit</button> <button>Delete</button>
Loki	2023-01-09	Domestic Shorthair	Orange Tabby	Male	2025-01-01	Active	<button>Edit</button> <button>Delete</button>
Iqi	2025-02-03	Lynx	White	Male	2025-02-28	Active	<button>Edit</button> <button>Delete</button>

Figure 7.3 Cat Records

This is the Cat Records interface, where administrators can view all registered cats with their Name, Date of Birth, Breed, Color, Gender, Register Date and Status. Add new cat data using the "Add New Cat" button. Edit or delete existing users using the "Edit" (green button) and "Delete" (red button) options. The "Logout" button allows the admin to exit the system.

7.1.1.3 Reports

The screenshot shows the 'Cat Sanctuary Record Tracker' application. At the top, there is a header with the title 'Cat Sanctuary Record Tracker' and a 'Logout' button. Below the header, a welcome message 'Welcome, Ademin Satu!' is displayed. A navigation bar with three items: 'User Management', 'Cat Records' (underlined), and 'Reports'. The main content area is titled 'Reports' and displays two summary boxes: 'Total Cats' (6) and 'Active Medical Cases' (5). Below these boxes, there are fields for 'Report Type' (set to 'Daily Care Report'), 'Start Date' (mm/dd/yyyy), and 'End Date' (mm/dd/yyyy). At the bottom, there are two buttons: 'Generate Report' (green) and 'Export to CSV' (blue).

Figure 7.4 Reports

The reports page provides an overview of the cat sanctuary's records, including the total number of cats and active medical cases. The administrator can generate different types of reports, specify a date range, and export data to a CSV file for further analysis.

7.1.2 Subsystem 2 Screens (Medical Staff)

7.1.2.1 Health Record Management

Cat Name	Date	Type	Treatment	Description	Medication	Next Checkup	Actions
Snowball	2025-02-04	Checkup	Deworming..	Routine deworming for internal parasites.	Drontal 1/2 tablet	2025-08-05	<button>Edit</button> <button>Delete</button>
Luna	2025-02-01	Emergency	Surgery	Deep wound on the leg	Painkillers, Antibiotics	2025-02-04	<button>Edit</button> <button>Delete</button>
Muffin	2025-01-31	Surgery	Wound Care	Wound cleaning and dressing.	Antibiotic ointment	2025-02-07	<button>Edit</button> <button>Delete</button>
Luna	2025-01-22	Infection	Ear drops prescribed	Ear infection detected.	Antibiotic Ear Drops	2025-02-10	<button>Edit</button> <button>Delete</button>
Milo	2025-01-20	Vaccination	Injection administered	Routine FVRCP vaccine.	FVRCP Vaccine	2025-02-01	<button>Edit</button> <button>Delete</button>

Figure 7.5 Health Record Management

This screen provides an overview of the medical records of cats in the sanctuary. It includes information such as the cat's name, medical history, treatment type, medication, and next checkup date. Medical staff can edit or delete records using the respective buttons, and new medical records can be added using the "**Add New Record**" button.

7.1.2.2 Medical Scheduling

The screenshot shows the 'Medical Schedules' section of the Cat Sanctuary Record Tracker. At the top right is a green 'Logout' button. Below it is a navigation bar with tabs: 'Health Records', 'Medical Schedule' (which is underlined in blue), 'Care Monitoring', and 'Medical Reports'. A green 'Add Appointment' button is located at the top right of the main content area. The main content is a table with columns: 'Cat Name', 'Type', 'Notes', 'Date', 'Status', and 'Actions'. The table contains five rows of data:

Cat Name	Type	Notes	Date	Status	Actions
Snowball	Dental	Dental Cleaning	2025-02-01 15:30:00	Scheduled	<button>Edit</button> <button>Delete</button>
Milo	Vaccination	Follow-up for FVRCP booster shot	2025-02-10 14:00:00	Scheduled	<button>Edit</button> <button>Delete</button>
Luna	Checkup	Re-evaluation of ear infection treatment	2025-02-15 10:00:00	Scheduled	<button>Edit</button> <button>Delete</button>
Muffin	Checkup	Checkup	2025-02-19 09:00:00	Rescheduled	<button>Edit</button> <button>Delete</button>
Loki	Follow-up	Follow up	2025-02-28 09:30:00	Scheduled	<button>Edit</button> <button>Delete</button>

Figure 7.6 Medical Scheduling

This screen allows medical staff to schedule appointments and medical checkups for the cats. It includes scheduling details such as date, time, assigned medical staff, and type of medical procedure.

7.1.2.3 Care Monitoring

The screenshot shows the 'Care Monitoring' section of the Cat Sanctuary Record Tracker. At the top right is a green 'Logout' button. Below it is a navigation bar with tabs: 'Health Records', 'Medical Schedule', 'Care Monitoring' (which is underlined in green), and 'Medical Reports'. A green 'Add Appointment' button is located at the top right of the main content area. The main content is divided into several sections:

- Total Cats:** 6
- Active Treatments:** 0
- Today's Scheduled Tasks:** 5
- Recent Care Activities:** A table showing a list of activities with columns: Date/Time, Activity Type, Cat/Area, Details, and Notes. The table contains nine rows of data:

Date/Time	Activity Type	Cat/Area	Details	Notes
Feb 21, 2025 6:00 PM	Task	Cat Area 3	Care Task #3	Cleaning
Feb 21, 2025 1:00 PM	Task	Cat Area 2	Care Task #2	Cleaning
Feb 21, 2025 12:00 PM	Feeding	Luna	Wet Food	Needs more socialization
Feb 21, 2025 12:00 PM	Task	Playground	Behavior Monitoring	Monitoring
Feb 21, 2025 11:00 AM	Feeding	Snowball	Wet Food	Likes to approach for interaction
Feb 21, 2025 9:00 AM	Feeding	Muffin	Dry Food	Likes to play around
Feb 21, 2025 9:00 AM	Task	Area 4	Feeding Monitoring	Feeding
Feb 21, 2025 8:30 AM	Feeding	Milo	Dry Food	Loves to climb on shelves
Feb 21, 2025 7:00 AM	Task	Cat Area 1	Care Task #1	Cleaning

- Care Activity Trends (Last 7 Days):** A table showing a summary of activity trends with columns: Date, Feeding Records, Tasks Completed, Behavior Notes, and Total Activities. The table contains two rows of data:

Date	Feeding Records	Tasks Completed	Behavior Notes	Total Activities
Feb 21, 2025	4	5	0	9
Feb 20, 2025	0	0	1	1

Figure 7.7 Care Monitoring

The screen provides an overview of the ongoing care activities for the cats. It displays the total number of cats, active treatments, and scheduled tasks for the day. Below, a detailed table lists recent care activities such as feeding, cleaning, and behavior monitoring. Additionally, the page includes a section showing care activity trends over the past seven days.

7.1.2.4 Medical Reports

The screenshot shows the 'Medical Reports' section of the application. At the top, there's a header bar with the title 'Cat Sanctuary Record Tracker' and a 'Logout' button. Below the header, a welcome message 'Welcome, DR Abu!' is displayed. A navigation menu includes links for 'Health Records', 'Medical Schedule', 'Care Monitoring', and 'Medical Reports', with 'Medical Reports' being the active tab. The main content area is titled 'Medical Reports'. It features two large boxes: 'Total Cats' (containing the number 6) and 'Active Medical Cases' (containing the number 5). Below these boxes are input fields for 'Report Type' (set to 'Health Record Report'), 'Start Date' (set to 'mm/dd/yyyy'), and 'End Date' (set to 'mm/dd/yyyy'). At the bottom of the form are two buttons: 'Generate Report' (green) and 'Export to CSV' (blue).

Figure 7.8 Medical Reports

This page enables medical staff to access reports related to the health and medical conditions of the cats. It displays the total number of cats and active medical cases while allowing users to generate health record reports for a specified date range. The generated reports can also be exported as a CSV file.

7.1.3 Subsystem 3 Screens (Caretaker)

7.1.3.1 Daily Tasks

The screenshot shows the 'Daily Tasks' section of the application. At the top, there are three time-based categories: 'Morning' (7:00 AM - 10:00 AM), 'Afternoon' (12:00 PM - 3:00 PM), and 'Evening' (6:00 PM - 8:00 PM). Below these categories is a table listing scheduled tasks:

Task	Location	Type	Time	Status
Care Task #1	Cat Area 1	Cleaning	7:00 AM - 9:00 AM	Completed
Feeding Monitoring	Area 4	Feeding	9:00 AM - 10:00 AM	Completed
Behavior Monitoring	Playground	Monitoring	12:00 PM - 1:00 PM	Pending
Care Task #2	Cat Area 2	Cleaning	1:00 PM - 3:00 PM	Pending
Care Task #3	Cat Area 3	Cleaning	6:00 PM - 8:00 PM	Pending

Figure 7.9 Daily Tasks

Displays scheduled tasks for caretakers, categorized into morning, afternoon, and evening. Tasks include location, type, time, and status (Completed or Pending). Users can add new tasks.

7.1.3.2 Feeding Records

The screenshot shows the 'Feeding Records' section of the application. At the top, there are three navigation tabs: 'Daily Tasks', 'Feeding Records' (which is selected and highlighted in green), and 'Behavior Notes'. Below the tabs is a table listing feeding records for four cats:

Cat Name	Food Type	Amount	Date	Time	Notes	Grooming	Actions
Luna	Wet Food	70.00g	2025-02-01	12:00:00	Needs more socialization	0	<button>Edit</button> <button>Delete</button>
Snowball	Wet Food	40.50g	2025-02-07	11:00:00	Likes to approach for interaction.	1	<button>Edit</button> <button>Delete</button>
Muffin	Dry Food	70.70g	2025-02-20	09:00:00	Likes to play around	1	<button>Edit</button> <button>Delete</button>
Milo	Dry Food	50.00g	2025-02-01	08:30:00	Loves to climb on shelves	1	<button>Edit</button> <button>Delete</button>

Figure 7.10 Feeding Records

Tracks feeding details for each cat, including food type, amount, date, time, and notes. Users can edit, delete, or add feeding records.

7.1.3.3 Behavior Notes

The screenshot shows the 'Behavior Notes' section of the application. At the top, there is a header bar with the title 'Cat Sanctuary Record Tracker' and a 'Logout' button. Below the header, a welcome message 'Welcome, Alissa Azrin!' is displayed. A navigation menu includes 'Daily Tasks', 'Feeding Records', and 'Behavior Notes', with 'Behavior Notes' being the active tab. An 'Add Behavior Note' button is located at the top right of the main content area. The main content is a table listing behavior notes for five cats: Loki, Muffin, Snowball, Milo, and Luna. The columns in the table are 'Cat Name', 'Behaviour Type', 'Description', 'Date', 'Created At', and 'Actions'. Each row contains a set of 'Edit' and 'Delete' buttons under the 'Actions' column.

Cat Name	Behaviour Type	Description	Date	Created At	Actions
Loki	Aggressive	Hissing at caretaker when hungry	2025-02-20	2025-02-20 09:29:42	<button>Edit</button> <button>Delete</button>
Muffin	Aggressive	hissing when approached by other cats	2025-02-08	2025-02-20 06:07:38	<button>Edit</button> <button>Delete</button>
Snowball	Eating	Eats well and like to play around	2025-02-07	2025-02-20 04:51:20	<button>Edit</button> <button>Delete</button>
Milo	Social Interaction	Playful and active, loves playing with others.	2025-02-01	2025-02-01 09:07:53	<button>Edit</button> <button>Delete</button>
Luna	Social Interaction	A bit shy but want to play. Need more interactions.	2025-02-01	2025-02-01 12:20:14	<button>Edit</button> <button>Delete</button>

Figure 7.11 Behavior Notes

Logs cat behaviors with details like behavior type, description, and date. Users can edit, delete, or add behavior notes.

8 Conclusion

The Cat Sanctuary Record Tracker System has been carefully built and thoroughly tested using PHP and MySQL. It fully meets the needs of the Administrator, Medical Staff, and Caretaker subsystems, providing a user-friendly and efficient solution for managing the sanctuary. Throughout the development process, we focused on ensuring the system's quality by testing every feature to make sure it works reliably and securely.

This project was a true team effort. We worked closely together, sharing ideas, dividing tasks, and combining our work into a seamless system. Regular communication and teamwork helped us stay on track and tackle any challenges that came up. Along the way, we faced a few hurdles, like technical glitches and integration issues, but we worked through them together, finding solutions and learning as we went.

Now that the system is complete and tested, it's ready to be used in a real cat sanctuary. We're confident it will make managing the sanctuary easier, help keep the cats healthy and happy and support the staff in their daily tasks.

9 User Guide

Introduction

This user guide provides instructions for using the Cat Sanctuary Record Tracker System. The system is designed to help administrators, medical staff, and caretakers manage cat records, health information, and daily care activities efficiently.

Getting Started

Accessing the System

1. Open your web browser and navigate to the system's URL.
2. Enter your username and password.
3. Click the **Login** button.

Logging Out

- o At the top-right corner of the screen, click the **Logout** button.

Administrator Guide

Administrators are responsible for managing user accounts, system configurations, and accessing all system data.

Managing User Accounts

1. From the main dashboard, click on **User Management**.
2. **To add a new user:**
 - o Click the **Add New User** button.
 - o Fill in the required details (username, password, role, etc.).
 - o Click **Save**.
3. **To modify an existing user:**
 - o Select the user from the list.
 - o Update the necessary details.
 - o Click **Save**.
4. **To delete a user:**
 - o Select the user from the list.
 - o Click **Delete** and confirm the action.

Medical Staff Guide

Medical staff are responsible for managing health records, scheduling medical check-ups, and monitoring cat health.

Managing Health Records

1. From the main dashboard, click on **Health Records**.
2. **To add a new health record:**
 - o Click **Add New Record**.
 - o Fill in the required details (cat ID, date, description, treatment, etc.).
 - o Click **Add Health Record**.
3. **To update an existing record:**
 - o Select the record from the list.
 - o Make the necessary changes.
 - o Click **Update Health Record**.

Medical Schedule

1. From the main dashboard, click on **Medical Schedule**.
2. **To schedule a new appointment:**
 - o Click **Add Appointment**.
 - o Select the cat, date, time, and type of appointment.
 - o Click **Schedule Appointment**.
3. **To modify or cancel an appointment:**
 - o Select the appointment from the list.
 - o Make the necessary changes or click **Delete**.
 - o Confirm the action.

Care Monitoring

1. **Overview of Care Monitoring Dashboard:**

The dashboard provides a summary of:

 - o **Total Cats:** Displays the number of registered cats.
 - o **Active Treatments:** Shows the number of ongoing medical treatments.
 - o **Today's Scheduled Tasks:** Indicates the number of care activities planned for the day.
2. **How to Use Care Monitoring:**
 - o **Adding a Care Activity:**
 1. Go to the **Care Monitoring** section.
 2. Click **Add New Task**.
 3. Fill in the required fields:
 - Activity Type (Feeding, Cleaning, Monitoring).
 - Cat/Area (Select the relevant cat or location).
 - Details (Task description).
 - Notes (Any relevant observations).
 4. Click **Save** to record the activity.
 - o **Generate Report:**
 - Click **Generate Report**.
 - Select the date range and metrics.
 - Click **Generate**.

Caretaker Guide

Caretakers are responsible for recording daily care activities, managing feeding schedules, and tracking cat behavior.

Daily Tasks

1. From the main dashboard, click on **Daily Tasks**.
 - o Tasks are categorized into **Morning**, **Afternoon**, and **Evening**.
2. **To add a new task:**
 - o Click **Add New Task**.
 - o Enter task details (Task Name, Location, Type, and Time).
 - o Click **Add Task** to add the task to the schedule.
3. **To update task status:**
 - o Completed tasks are marked as **Completed**, while pending tasks remain **Pending**.

Feeding Records

1. From the main dashboard, click on **Feeding Records**.
2. Click **Add Feeding Record**.
3. Enter the cat's name, food type, amount, date, and any notes.
4. Click **Add Feeding Record**.

Behavior Notes

1. From the main dashboard, click on **Behavior Notes**.
2. **To add a behavior note:**
 - o Click **Add Behavior Note**.
 - o Enter the cat's name, behavior type, description, and date.
 - o Click **Add Behavior Record**.
3. **Editing or Deleting a Behavior Note:**
 - o Click **Edit** to update the note.
 - o Click **Delete** to remove a note permanently.

Contact Information

For further assistance, please contact:

- **System Administrator:** admin@catsanctuarysystem.com
- **Technical Support:** support@catsanctuarysystem.com
- **Phone:** +60 3-1234 5678 (Office Hours: 8:30 AM - 5:30 PM, Monday to Friday)

Conclusion

The **Cat Sanctuary Record Tracker** is a comprehensive tool for managing cat care tasks, medical treatments, and health reports. By following this guide, caretakers, medical staff, and administrators can efficiently track daily activities, feeding schedules, and behavioral patterns, ensuring the well-being of all sanctuary cats.