Project Report
Pet Shop Management System

Group Number: 10

Group Members:

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Introduction

Welcome to our project on Pet Shop Management System, built using PHP, HTML and SQL. This project aims to provide a comprehensive solution for managing various aspects of a pet shop, including inventory management, sales and billing, customer management, and employee management. The system is designed to be user-friendly and efficient, providing pet shop owners with a powerful tool for streamlining their business operations. Our system allows pet shop owners to easily manage their inventory, including adding and removing products, updating prices, setting reorder levels, and generating reports that help them make informed purchasing decisions. The system also includes a robust sales and billing module that helps pet shop owners track sales, generate invoices, and manage payments. In addition, our system includes features for managing customers, including creating customer profiles, tracking customer purchases, and generating customer loyalty rewards. Finally, the system includes an employee management module that helps pet shop owners schedule employees, track attendance, and manage payroll. We believe that our Pet Shop Management System will be an invaluable tool for pet shop owners who want to streamline their operations and improve their bottom line. Thank you for considering our project!

Motivation

The pet industry is growing at a rapid pace and has become a multi-billion dollar industry worldwide. With the increasing number of pet owners, there is a need for efficient management systems to streamline operations and maximize profits for businesses in this sector. Pet shops are no exception, and the need for effective inventory management, sales and billing, customer management, and employee management cannot be overemphasized. However, many pet shops still rely on manual processes or outdated software that can lead to inefficiencies, errors, and loss of revenue. Our motivation for building a Pet Shop Management System using PHP, HTML, and SQL is to provide an efficient solution for pet shop owners to manage their businesses effectively. By offering a user-friendly and comprehensive system, we aim to help pet shop owners automate their processes, minimize errors, and save time, thereby allowing them to focus on more important aspects of their business. Furthermore, our system is designed with flexibility in mind, making it adaptable to different types of pet shops, whether small or large-scale, and customizable to suit individual needs. We believe that our project will help pet shop owners to improve their operations, enhance customer satisfaction, and ultimately increase profitability.

Project Usage(Usage In real life and what problem it solves)

The Pet Shop Management System using PHP, HTML and SQL is an ideal solution for pet shops of all sizes looking to streamline their operations and improve their bottom line. The system provides a range of features that solve various problems faced by pet shop owners, including:

Inventory Management: The system allows pet shop owners to easily manage their inventory, including adding and removing products, updating prices, setting reorder levels, and generating reports that help them make informed purchasing decisions. This feature helps pet shop owners to optimize their inventory levels, ensure products are always available for customers, and reduce the risk of stockouts.

Sales and Billing: The system includes a robust sales and billing module that helps pet shop owners track sales, generate invoices, and manage payments. With this feature, pet shop owners can easily manage transactions, reduce errors, and provide customers with accurate and timely bills.

Customer Management: The system includes features for managing customers, including creating customer profiles, tracking customer purchases, and generating customer loyalty rewards. These features help pet shop owners build better relationships with their customers, increase repeat business, and attract new customers through referrals.

Employee Management: The system includes an employee management module that helps pet shop owners schedule employees, track attendance, and manage payroll. This feature streamlines employee management, reduces errors, and ensures that employees are paid accurately and on time.

In real life, pet shop owners can use our Pet Shop Management System to automate their business processes, reduce manual errors, and save time. With the system, they can manage their inventory, sales, customers, and employees from one centralized platform, making it easier to run their businesses efficiently. The system provides valuable insights into their business operations, such as top-selling products, popular customer preferences, and employee performance metrics, helping pet shop owners to make informed decisions and improve their profitability.

System Request

Project Sponsor:

Antu Dutta, CEO, Capital AR Corporation
Munia Alam Labonno, Chairman, SR Technology
Emam Hasan, Managing Director, AD Industry LTD

Business Need:

The proposed system is basically for pet enthusiast people as well as those who are working in this sector like vets, animal groomers, and animal massage therapists. Pet owners often face various difficulties such as not finding a suitable food or desired brand, not finding proper medical care in their time of need, and not getting information of a pet day and night care center. It might be difficult to take care of pets during office hours or school hours for some people. So if they can get a trustable pet care center, this problem might have been solved. Some people rethink, and even sometimes regret the decision of adopting a pet for this inconvenience, some even abandoned their pets for this reason. Not only that, if any animal gets sick, they sometimes do not get proper treatment for reasons like transportation inconveniences. If they fall sick at night time, they cannot get emergency first aid. There might be some places where buying pet food, and toys or even getting in touch with a vet in an emergency time is difficult. So people often stop the idea of getting a pet for themselves. There are also incidents like being inexperienced in taking care of pets, leading pets, and their owners to face disaster situations, and leaving a psychological shadow. There are also some people who want to adopt any particular breed or any rare animal but cannot get the information about how to or where to adopt as well as how to take care of it. Sometimes they had to face fraudulent people. For all these problems mentioned above people often cannot take action about their desire to adopt a pet even if they want to. So, our pet shop system's features are proposed with the determination to solve these problems as much as possible. This pet shop will basically try to make it easier for both customers, employees as well as employers.

Business Requirements:

When individuals wish to adopt a pet, all they have to do is visit our website and choose as to their liking and we will get a small commission from them.

- Many campaigns and advertisements can be done to tell people how our system is different from others and what extra benefits they can get from our system.
- Donors are free to contribute so that we can bring more kinds of breeds from abroad for adoption. They may also file complaints if they think we are taking extra commission or we didn't give them the breed that they originally asked for.
- Notable or well-known users will be featured on the platform and will receive a free gift. Moreover, the System can provide unique features that provide users to feature their pets on the platform
- There will be three types of users (sellers, vets, and customers/patients). Admins can add new customers, update the information about customers, and delete information about the customers. They can also view the sales report of daily/weekly/monthly/yearly sales reports. Users can log in with their username and password which will direct them toward a dashboard. They can also view the information of the sellers.
- There will be different categories where customers can view the information on every product they can purchase and which products are available in stock. They also have the ability to suggest, comment and review a product in the comment box. They can also search for products that they want to buy using the search bar using the product name.
- After purchasing products, customers can see their purchase history. For every purchase, they will be provided with a cash memo. They can choose whether they want to pay via online payment or cash on delivery.
- There will be opportunities where others can join the system and apply for a pet day or night care job. They can also join other events and invite others for extra commission.
- The system will alert the admin with a notification if any product is about to go out of stock. System will also provide a secure data storage system.

Business Value:

➔ **Tangible value of opening an online pet shop:**

- Access to a wider customer base beyond a physical location. While a physical location is accessible to nearby people, an online store will be accessible to at least 1000% more people. Which has potential to generate over 90,000 taka revenue monthly.
- Reduced overhead costs compared to brick-and-mortar stores. This will save the cost of a physical location by around 60% as we can operate it from anywhere which is convenient to our business needs and budget. We can save around 180,000 taka of a physical store.

- Increased flexibility in terms of operating hours and product offerings. We can operate it on our own terms without thinking about local regulations of the market. We can also showcase a larger amount of products online. With these, we expect to get 300% more sales than typical physical pet shops. In terms of money, it can add more than 600,000 taka to our annual revenue.
- Easier to track sales and inventory using online tools. Which will reduce the need for extra staff. This will reduce the staff cost by nearly 20%. With which, we can save around 240,000 taka annually.
- Potential for higher profit margins due to lower operating costs. This will allow us to make profit exponentially while keeping operating costs low. In the first year, we might make a revenue of almost 1,000,000 taka. And We expect to see around 30% revenue growth each year.

➔ Intangible value of opening an online pet shop:

- Ability to provide convenience to pet owners who may have busy schedules or limited transportation options. It will increase our customers by around 15%.
- Building a community of pet owners who share similar interests and values. Here, people can easily be influenced to purchase their pet products from our shop. It will increase our sales by 40% and it will continuously increase.
- Providing a sense of comfort and companionship to pet owners who may be going through difficult times. It will create an obsession with their pets and consequently, they will purchase more products for their pets. We hope to get at least a 5% sales increase by these customers.
- Contributing to the well-being and happiness of pets and their owners. It will increase their trust in our shop. And they will be our regular customers. They will contribute to our sales by around 25%.
- Opportunity to support animal welfare causes and promote responsible pet ownership. A responsible pet owner is more likely to buy essential products for their pets. So, we are expecting at least a 10% sales increase from our program.

Special issues or constraints:

- There might be some situations where our pet owner training videos might get pirated. Then the video owner will have the full authority to take legal actions.
- Some people might have the tendency to share one account together, there will be a certain limit of people who can share one account, if this rule is violated, the admin will have the power to cancel any membership at any moment.

- There might be some moments where people will pass disturbing comments or disrespectful words while our vets or other employees are taking classes or attending consultations online, the admin will have full authority to ban those accounts for a certain period of time or even for forever.
- If anyone ever spreads rumors or questions about the quality of our product or customer service without solid evidence, legal actions will be taken.
- Any pet before getting shelter, will have to face a full check up which will be the right of the shop owner. And with problematic situations or critical medical conditions, the shop owner will have the right to reject the pet.
- After doing a profile check, if any suspicious activity of the adopter had been found, the shop owner will have the power to reject and stop the adoption procedure.
- There might be some situations, where the admin will have full authority not to refund the customers. But it will be with proper explanations from the admin.

Requirement Analysis

Functional Requirements:

Account Management:

- There are two types of user admin and customers.
- Admin accounts are for those who have the highest authority in the whole system as they can ban or verify other user accounts of the customers. Admin accounts are for both owners, vets, shop managers as well as the others who are directly involved with the work of the shop.
- Customers can register for their account with their own initiative but it will need approval from the admin. After the approval, they can change some settings and information for their own privacy purpose.

1. Admin Account:

- Dashboard: Provide an admin dashboard that gives a quick overview of the website's sales, traffic, and order fulfillment.
- Product Management: Allow admins to manage the products available on the website, including adding new products, editing existing products, and deleting products.
- Order Management: Allow admins to manage the orders placed on the website, including viewing order details, updating order status, and generating reports.
- Customer Management: Allow admin to manage customer's profile, such as create, edit, delete or temporarily suspend any profile.
- Inventory Management: Allow admins to manage the inventory of products available on the website, including tracking stock levels, updating stock status, and generating reports.
- Discount and Promotion Management: Allow admins to manage discounts and promotional offers, including setting up coupon codes, creating special offers, and managing sales campaigns.
- Payment Management: Allow admins to manage the payment methods available on the website, including adding new payment methods, updating existing payment methods, and managing refunds.

- Shipping Management: Allow admins to manage the shipping options available on the website, including adding new shipping methods, updating existing shipping methods, and managing returns.

2. Customer Account:

- User Registration: Allow customers to create an account by providing their email address, name, and password.
- Login: Provide a secure login system for registered customers to access their accounts.
- User Profile: Allow customers to create and manage their user profile, including personal information, shipping addresses, payment methods, and order history.
- Wishlist: Allow customers to create and manage their wishlist of products they want to purchase in the future.
- Order Tracking and History: Allow users to track their orders and view their order history, including the status of each order, the shipping and delivery information, and any related details.
- Rewards Program: Implement a rewards program that offers customers points for their purchases, which they can redeem for discounts or free products.
- Subscription Management: Allow customers to manage their subscriptions for pet food, toys, or other products.
- Product Reviews: Allow customers to leave product reviews and ratings, which can help other customers make informed purchase decisions.
- Referral Program: Implement a referral program that offers customers discounts or rewards for referring new customers to the website.
- Donation: Customers can donate an amount of money to a homeless animal shelter or gift a product after purchasing it from the store.
- Customers can contact the admin panel for any problem they face.
- Account Deactivation: Allow customers to deactivate their accounts if they no longer wish to use the website.

3. Other functionalities:

- Search Functionality: Provide a robust search feature that allows users to search for products based on keywords, categories, and other relevant criteria.
- Quick Checkout: Provide a quick and easy checkout process that allows users to complete their purchase with minimal steps and without having to create an account.

Non-Functional Requirements:

1. Operational:

- Back-end will be used PHP and Front-end will be used HTML, CSS, and JS.
- The system should be light so that it requires minimal hardware power.
- The system should be able to run on any device like desktops, laptops, smartphones, and tablets.
- The system should run on most browsers.
- The system will have a light and dark theme.

2. Performance:

- Able to switch among pages instantaneously without reloading the page.
- The server will simultaneously update and work.
- The system should support 100 simultaneous users at a time.
- The system should be available for use 24 hours and 365 days.
- Users will be able to get the latest updates as soon as the system releases it.
- The system should be fast and able to perform smoothly under heavy traffic.
- The system will calculate the total bill within 1 second.

3. Security:

- Make sure all clients and staff information is kept private and isn't shared with others.
- To prevent interception or monitoring, make sure that any sensitive data is encrypted before it is transmitted over the internet.

4. Cultural and Political:

- No racism or discrimination will be promoted through any behavior or advertisement.
- No political issue or sensitive controversial topics will be promoted via the system be it the customer or the employee.

5. Maintainability:

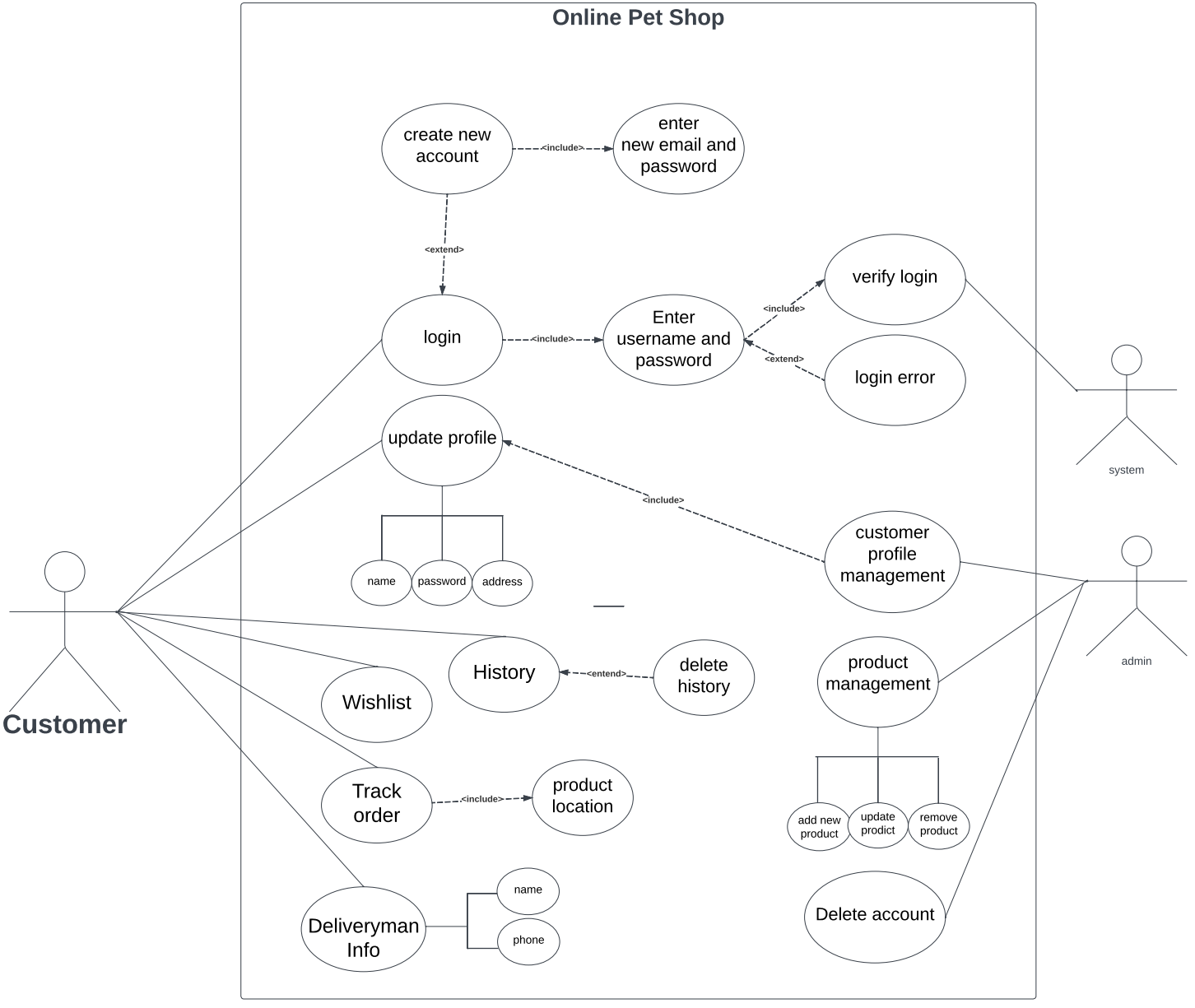
- When there is an update, the users will be able to login in the updated website within one minute.

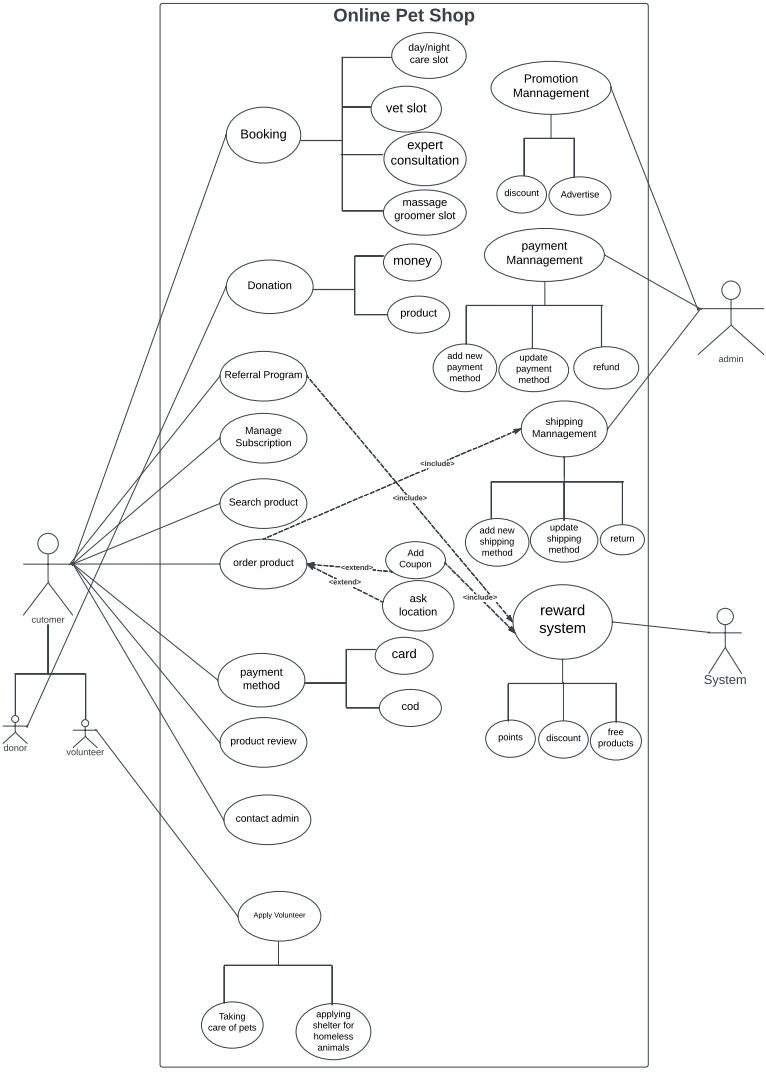
6. Usability:

- The system will be with a simply designed front page, easy-to-find setting options, and similar fonts all over the website.

Use Case Diagram:

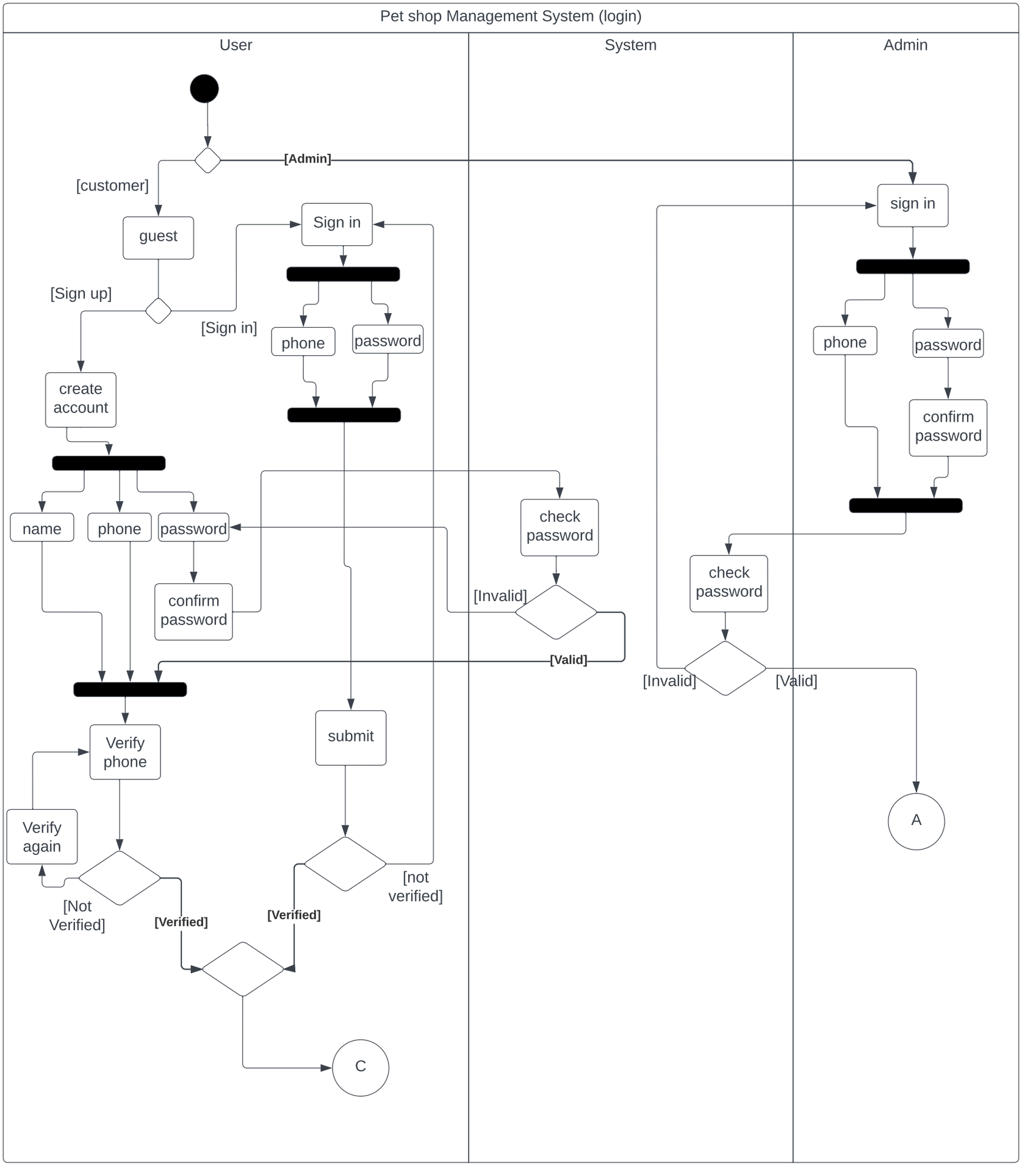
The given use case diagram below describes the system activity from the perspective of users. As our proposed system has two types of users which are admin and the customers, the diagram introduces them as primary and secondary actors based on their activity in the system.


Online Pet Shop
create new account
<include>
enter new email and password
<extend>
login
<include>
Enter username and password
<include>
verify login
<extend>
login error
update profile
<include>
customer profile management
name
password
address
system
admin
Customer
History
<entend>
delete history
Wishlist
product management
Track order
<include>
product location
add new product
update predict
remove product
Deliveryman Info
name
phone
Delete account


Online Pet Shop
day/night care slot
vet slot
expert consultation
massage groomer slot
Booking
Promotion Mannagement
discount
Advertise
payment Mannagement
add new payment method
update payment method
refund
admin
money
product
Donation
Referral Program
Manage Subscription
Search product
order product
shipping Mannagement
add new shipping method
update shipping method
return
<include>
<include>
Add Coupon
ask location
<extend>
<extend>
<include>
reward system
points
discount
free products
System
cutomer
donor
volunteer
payment method
card
cod
product review
contact admin
Apply Volunteer
Taking care of pets
applying shelter for homeless animals

Activity Diagram:

An activity diagram is a flowchart for illustrating the flow of a system’s activities. The three diagrams below depict the main activities of our system. The dynamic aspects of the system are described in an activity diagram, which is primarily a flowchart for illustrating the flow of a system's activities. We have used an activity diagram to understand the flow of programs on a high level. It also enables them to figure out constraints and conditions that cause particular events. It is used to grasp the high-level flow of programs.


Pet shop Management System (login)
User
System
Admin
[Admin]
[customer]
guest
Sign in
[Sign up]
[Sign in]
phone
password
create account
name
phone
password
confirm password
check password
[Invalid]
[Valid]
Verify phone
Verify again
[Not Verified]
[Verified]
submit
[not verified]
[Verified]
C
sign in
phone
password
confirm password
check password
[Invalid]
[Valid]
A

Pet Shop Management System(Admin View)

Admin

System

A

[Other]

[Other]

[Other]

[Other]

[Other]

[Other]

[Dashboard]

[Other]

Sales

Website traffic

Order queue

[Order Management]

[Other]

View Order Details

Update order

Generate report

[Inventory Management]

[Other]

Update stock status

track stock level

generate report

[Payment Management]

[Other]

add new payment method

update existing payment method

manage refund

[Product Management]

[Other]

Sales

Website traffic

Order queue

[Customer Management]

[Other]

add customer

Update customer info

delete customer

[Discount and Promotion Management:]

[Other]

Discount

Promotion

Coupon Release

[Shipping Management]

[Other]

add new shipping method

update existing shipping method

manage refund

[Go to Menu]

[Signout]

Log out

Pet Shop Management System(Customer View)

Customer

System

C

[User Profile]

[Other]

[Other]

[Other]

[Other]

[Other]

[Other]

Personal Info

Shipping Location

Payment Method

[Order tracking history]

track order

view order history

delivery man info

location

order status

[subscribation management]

gold

platinum

[account deactivation]

[Donation]

product

money

[Reward Points]

Get Free Offers

Gift Reward Points

[review]

Rate

Comment

Delete account

Deactive account temporary

[Menu]

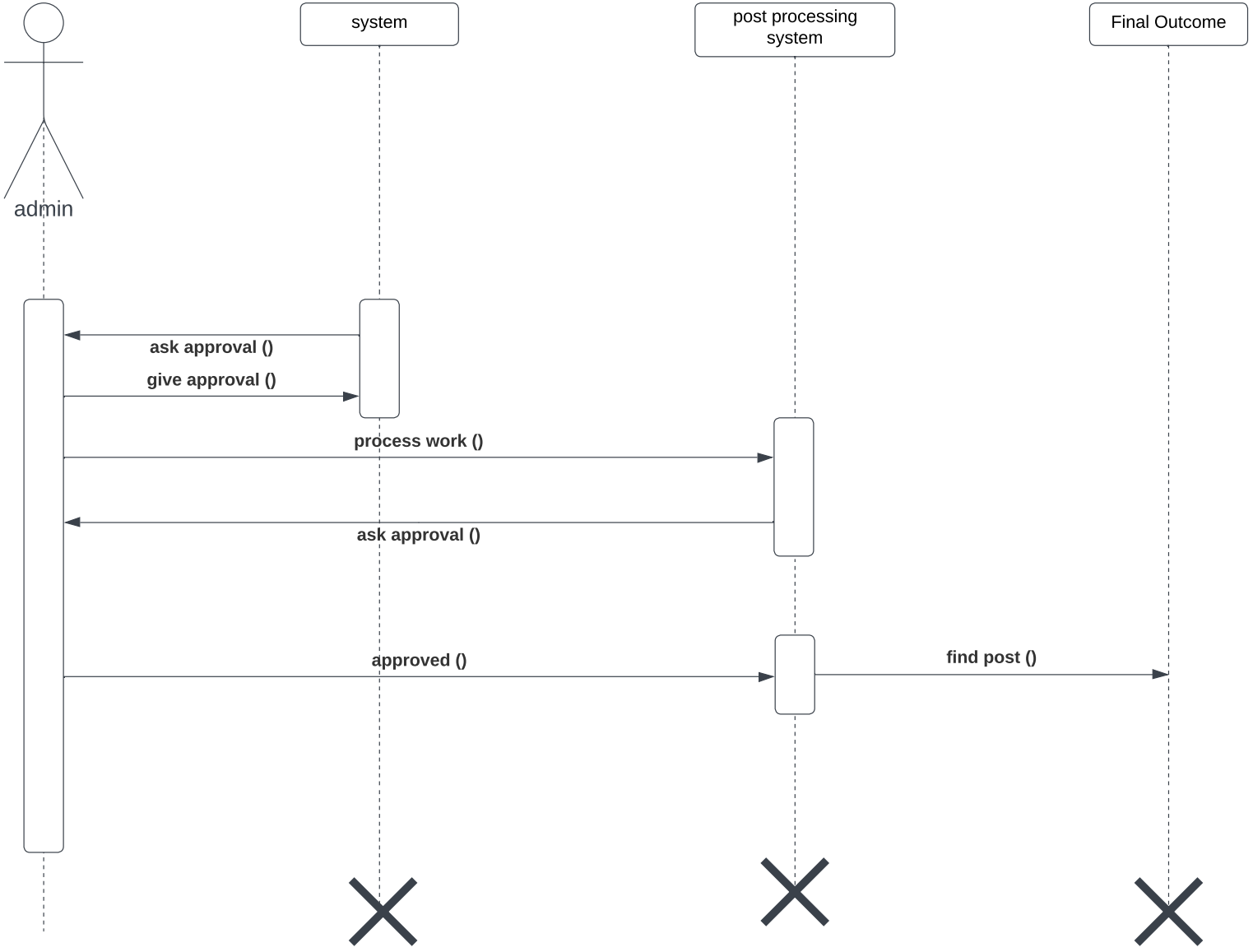
[Sign out]

Log Out

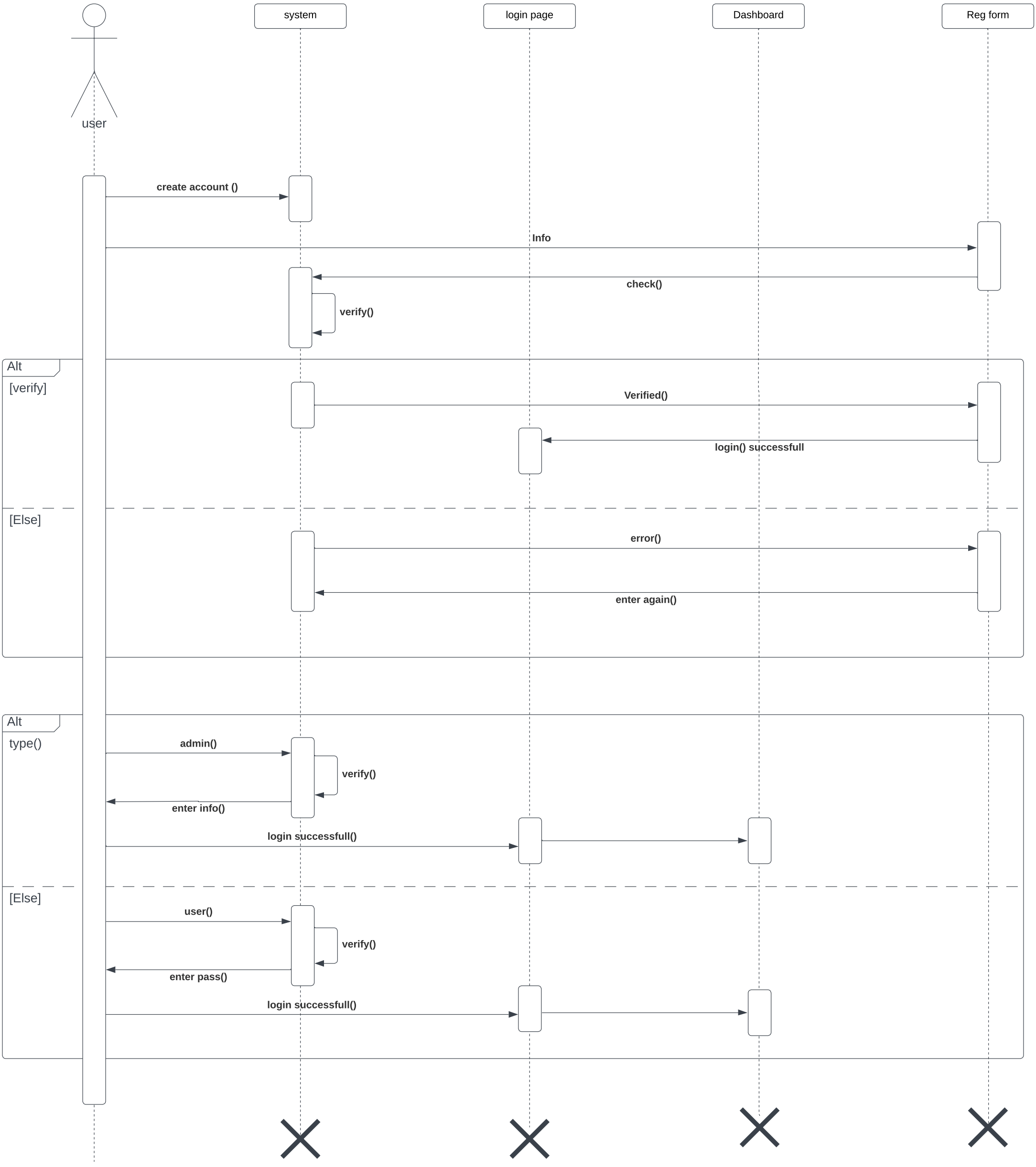
Sequence Diagram:

A sequence diagram or system sequence diagram shows process interactions arranged in time sequence in the field of software engineering. It depicts the processes involved and the sequence of messages exchanged between the processes needed to carry out the functionality. It is a type of interaction diagram because it describes how—and in what order—a group of objects works together. These diagrams are used by software developers and business professionals to understand requirements for a new system or to document an existing process.

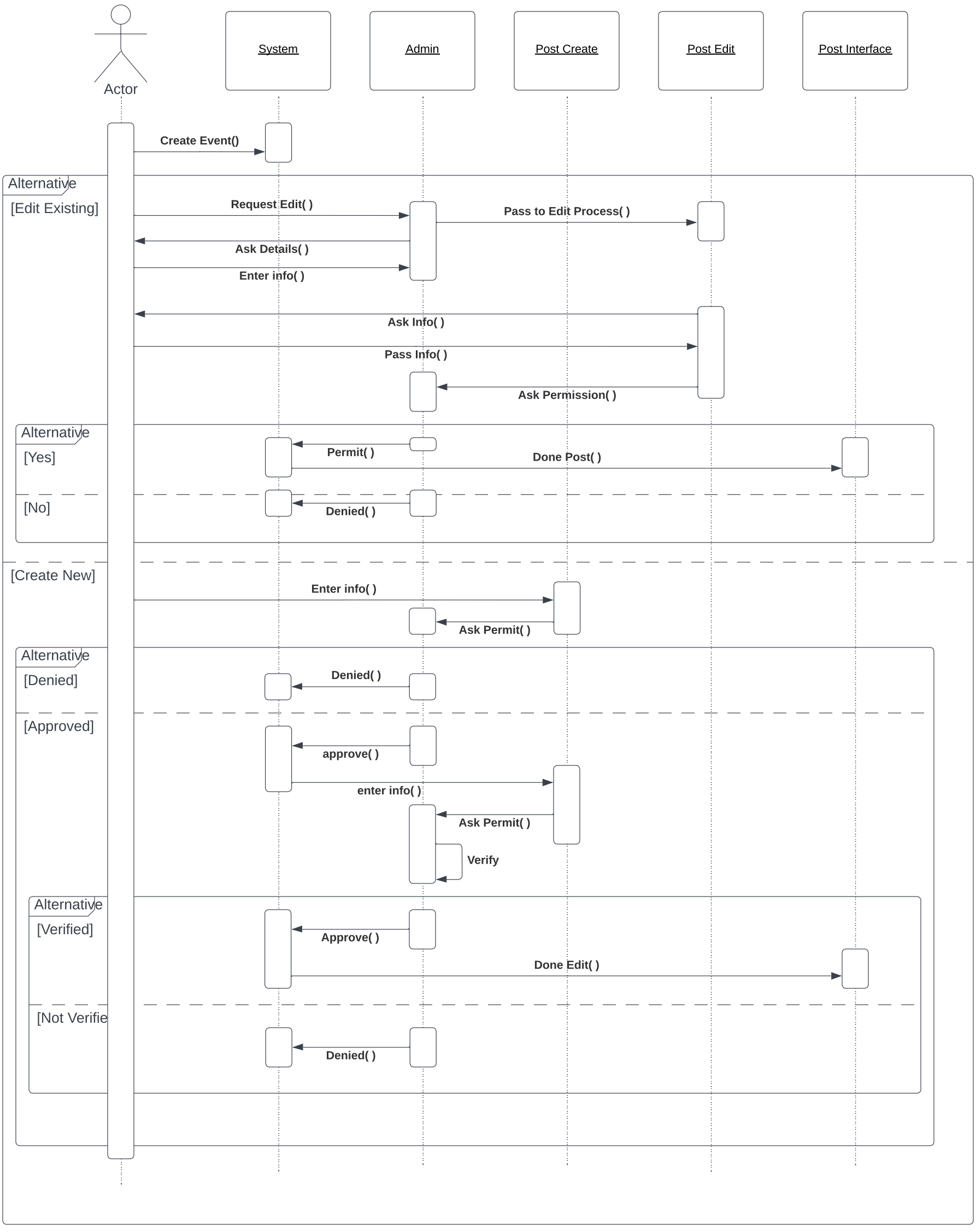
admin sequence diagram



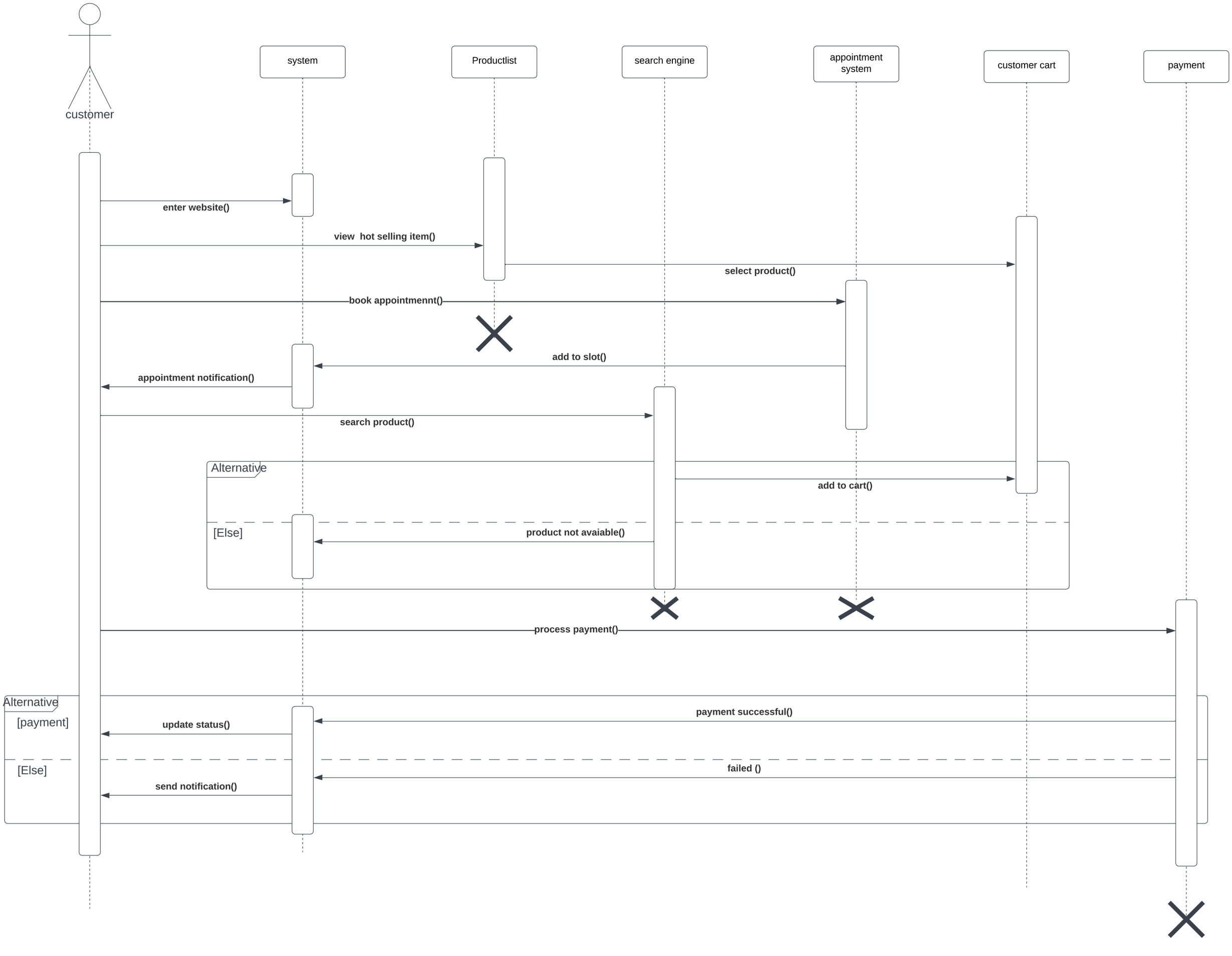
login sequence diagram



Management
Sequence Diagram



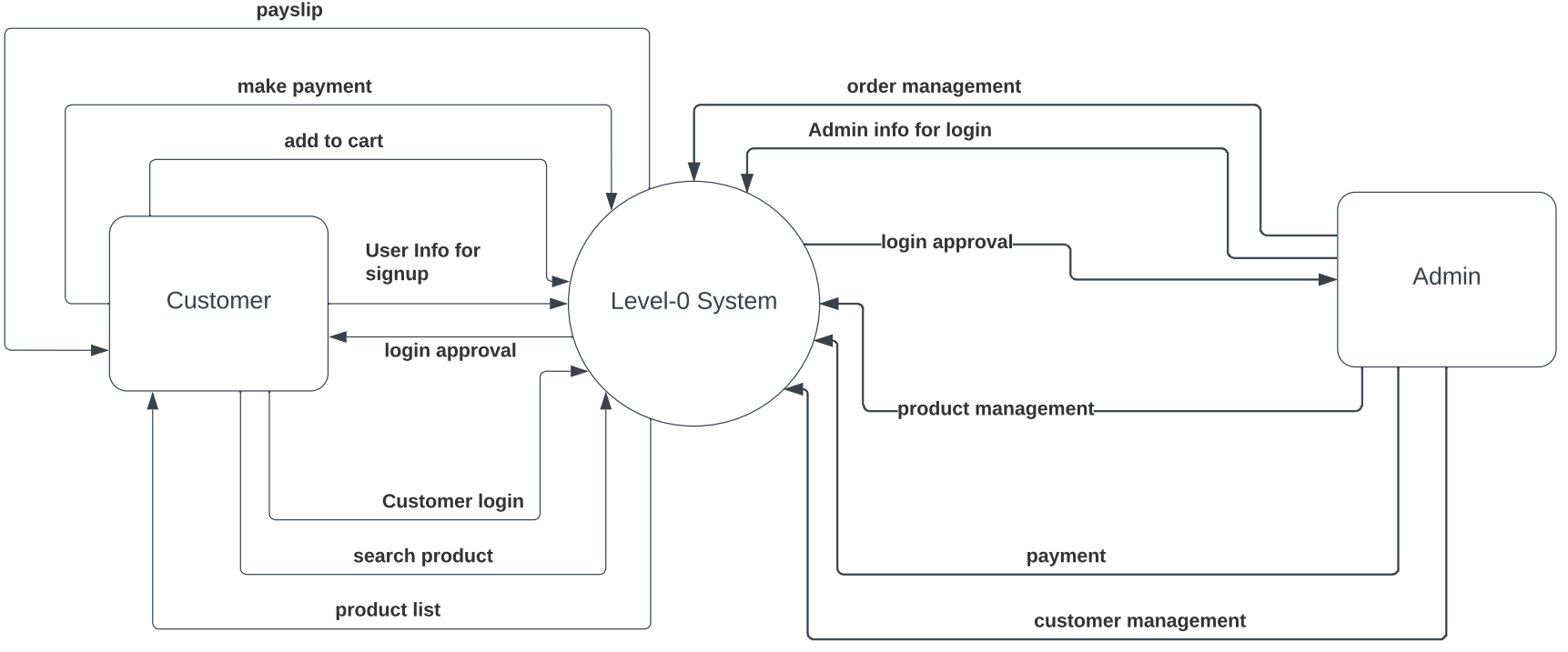
customer sequence diagram



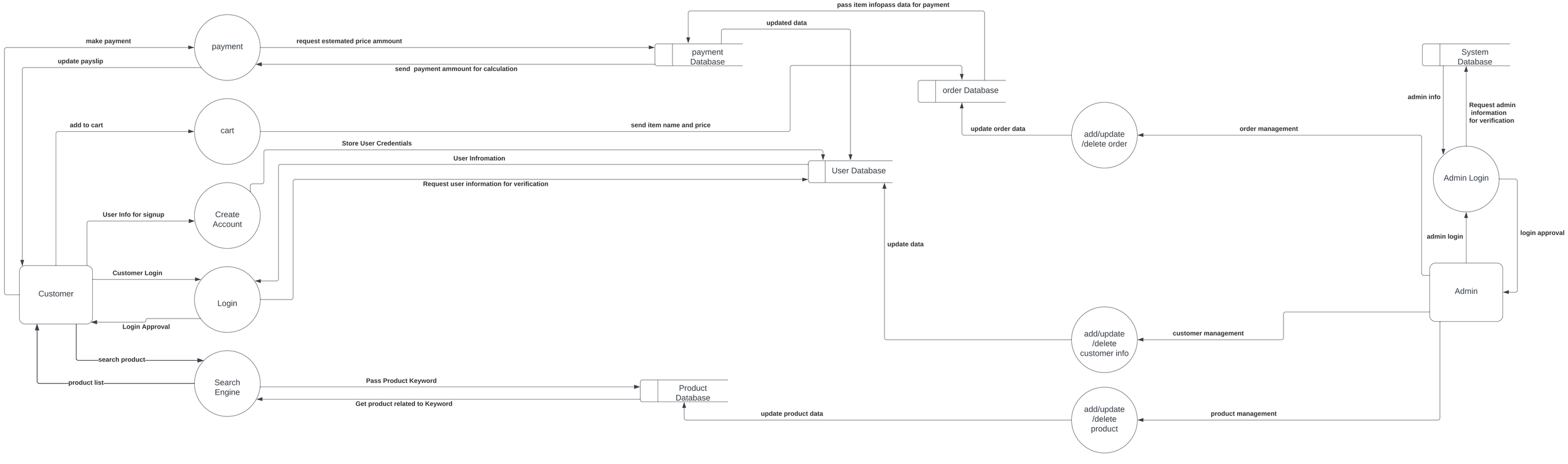
Data flow Diagram

A data-flow diagram is a way of representing a flow of data through a process or a system. The DFD also provides information about the outputs and inputs of each entity and the process itself. A data-flow diagram has no control flow — there are no decision rules and no loops.

Data Flow Diagram
Level-0



Data Flow Diagram Level-1



Conclusion

A pet shop and management system project using PHP, HTML, and SQL can be a great way to manage the inventory and sales of a pet store. The system can allow for easy tracking of pets, customers, orders, and payments, as well as generating reports and managing employee accounts.

To summarize, this project can provide the following benefits:

- Efficient inventory management
- Easy customer and order tracking
- Streamlined payment processing
- Comprehensive reporting
- Secure employee account management

However, it's important to ensure that the system is designed with a user-friendly interface, robust security features, and proper data backup mechanisms to ensure that the system is reliable and safe to use.