Online Property Management System

OOAD PROJECT

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TABLE OF CONTENTS

Online property management system:

Introduction:

Online property management system is basically a system that will keep records of properties available for sale. And it will works as connecting bridge between customer and property sellers. This system is basically designed to provide information of various properties at one place. It is very strong and easy to use that makes quick booking and account handling process. This system will provide a platform to home line property sellers and buyers.

When user open a website homepage display on screen which shows the list of plots and homes that are for sale. When buyer want to buy any property, he must login/signup to enter requirements of house and plots that he want to buy. When he found desire property, contract will be done between buyer and seller. If customer wants to contact seller before contract is to be done then he can contact to seller by provided phone number or email address. For payment two methods are provided i.e. full payment and installments. If user pay full amount certain discount is provided to him.

 For seller he must sign up and enter the property details that he want to sale.

Admin maintains the records of property. He approves the property when seller added any property and delete certain property after certain time. Property list automatically updated after every 10 minutes.

Use Case:

Online Property Management System

- view property
- Login
- Search Property
- Book Property
- Contact Admin
- Pay Cash
- Pay by bank
- Pay in Installment
- Make Payment
- <<extend>> Pay full Amount
- Give Discount
- Pay Cash
- Pay by bank
- Post Property for sale
- Manage Records
- Logout

Customer

Seller

Admin

Bank
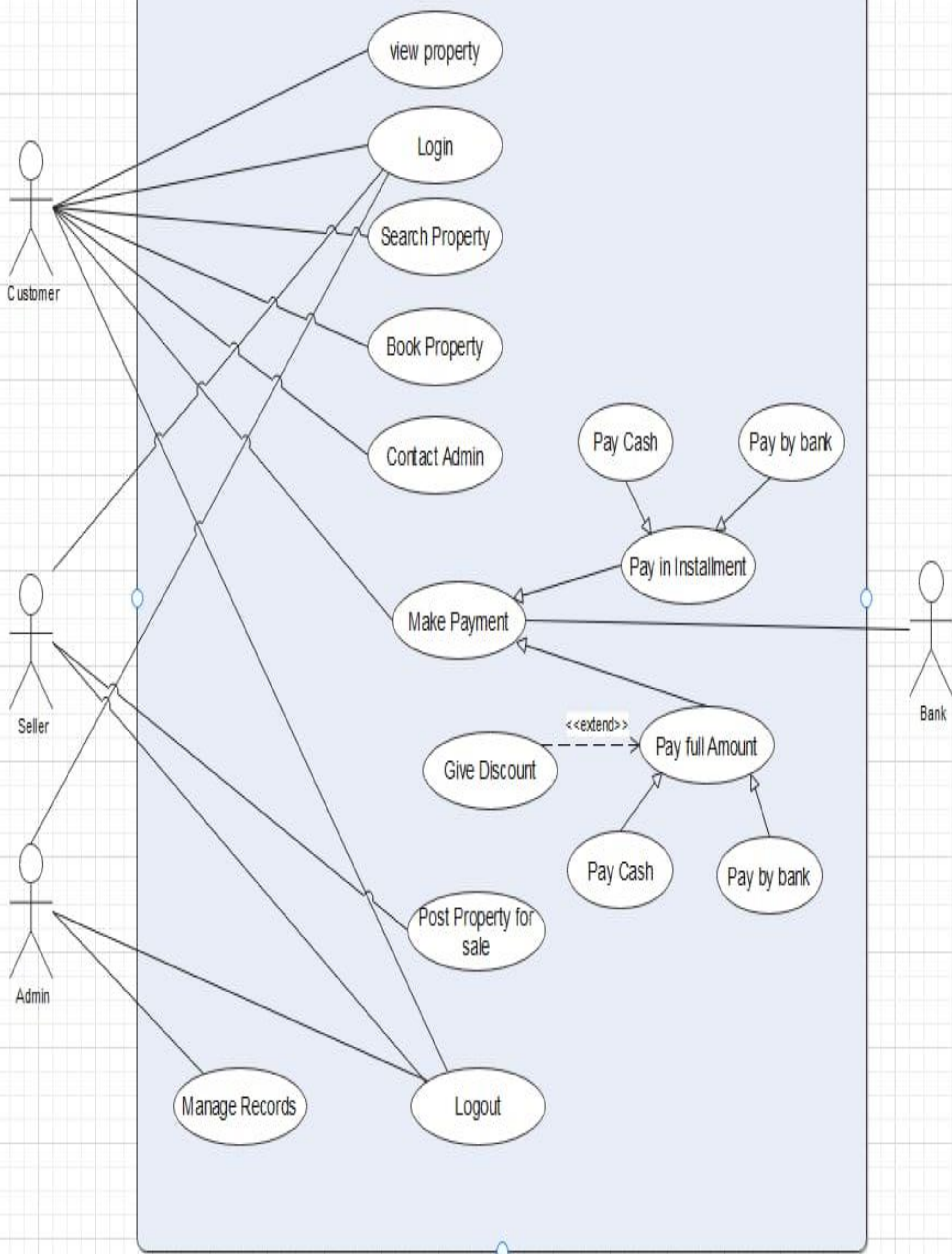
Textual use case:

UC1: View Property

When user open a site or visit a site he/she can view all type of property. Then if he/she interested in any of one them he simply contact with admin.

UC2: Login

Use Case Name	Login
Scope	Online Property Management System
Level	Goal
Primary Actor	User, Seller,
Stakeholders and interests	-
Preconditions	-
Success Guarantee / Post-condition	User successfully logged in.
Main Success Scenario	1. User provides a username and password. 2. System validates the provided username and password. 3. If the login details are valid, the access is granted.

Extensions	Alternate 1:
	    1. If details are not validated, ask user again for details
	    2. Validate details again and grant access if login details are valid.
	
	Alternate 2:
	    1. If user entered wrong username / password three times in a row, lock user account.

Special Requirements	Password entered should be secure
Technology and Data variation list	-
Frequency of occurrence	High
Miscellaneous	-

UC3: Search Property

Use Case Name	Search Property
Scope	Online Property Management System
Level	User Goal
Primary Actor	Property User
Stakeholders and interests	Customer: Correctly enter each and every requirement to final a desire place according to his choice . Amin: Find final the list of all places that are to be sale according to customer req.
Preconditions	Customer must log in.
Success Guarantee / Post-condition	List of properties displayed according to user requirements (property location, property area)
Main Success Scenario	1. If customer is register then login, if customer is new then sign up. 2. Enter requirements i.e. property location, property area. 3. Display list of places to be sale according to requirements.
Extensions	Alternate 1: 1. If property details are incorrect, ask user again for details.

	2. Validate details again and grant access if property details are valid.
Special Requirements	List show within 20 Sec
Technology and Data variation list	-
Frequency of occurrence	Medium
Miscellaneous	-

UC4: Contact Admin

· <u>Use Case Name:</u> Contact Admin

· <u>Level:</u> User Goal

· <u>Primary Actor:</u> Customer

· <u>Stakeholder & Interest:</u>

Customer: Customer contact with seller for details & for deal.

Seller: Customer respond to customer for clear all points.

· <u>Precondition:</u>

User Choose property from list and contact with seller for final deal to buy property. User must login to the system.

· <u>Main Success Scenario:</u>

Customer must logged in system, have account or registered.

Customer do contact with seller for a specific property.

· <u>Extensions:</u>

If customer has no credit then he has to call again.

UC5: Make Payment

Handle returns:

After login and property deals done, customer pay payment.

Alternate scenario:

If customer mistakenly pay less amount then actual amount then he has to pay full amount on time.

UC6: Pay Full

<u>Handle returns:</u>

When a customer purchase property he must pay payment. The manager check the total amount and finalize the deal.

<u>Alternate scenario:</u>

If customer mistakenly pay less amount then actual amount then he has to pay full amount on time.

UC7: Give Discount

When a customer pay full payment of his/her property then maybe he will get a discount.

UC8: Pay installment

Handle returns:

If customer wants to purchase property on installments then he/she must pay installments every month until his/her complete payment is complete.

Alternate scenario:

If customer do not pay any installment even after three to four months then cancel the deal.

UC9: Pay through Bank

Handle returns:

When a user purchase property he/she has a choice to pay his/her bank account. Bank drafts has to be done to pay payment.

Alternate Scenario:

If he/she have less amount than required so it gives error message that you don't have sufficient amount.

UC10: Pay Cash

If user want to pay in cash he/she will meet with seller and pay payment in cash.

UC11: Manage Record

- · Use case Name: Manage Record
- · Level: Admin Goal
- · Primary Actor: admin
- · Stakeholders and interests:
    Seller: when seller enter property it is enter in property list.
    Customer: search a property specific list display.
- · Preconditions:
    Amin login.
    Admin manages records of property.
- · Post Condition:
    When customer search property specific list display according to his requirements.
    Seller enter property it is added into property list.
- · Main Success Scenario:
    Admin login.
    Manage record.
- · Extensions:
    If login incorrect admin cannot manage so he has to login.
- · Special Requirements:

Record refreshes after every 5 minutes.

UC12: Post Property for Sale

· Use Case Name: Post property for sale

· Level: seller Goal

· Primary Actor: Property Seller

· Stakeholder & Interest:

Seller: seller enter property detail for which admin keep records of property.

Admin: Admin keep records of property details of seller.

· Preconditions:

Property seller must have a correct knowledge of property details like how much rate of Marla for specific home and update rates according to time and must know the location exactly.

· Post Condition:

Property is added into property list.

· Main success scenario:

Seller login or if he seller is a new so he has to register himself.
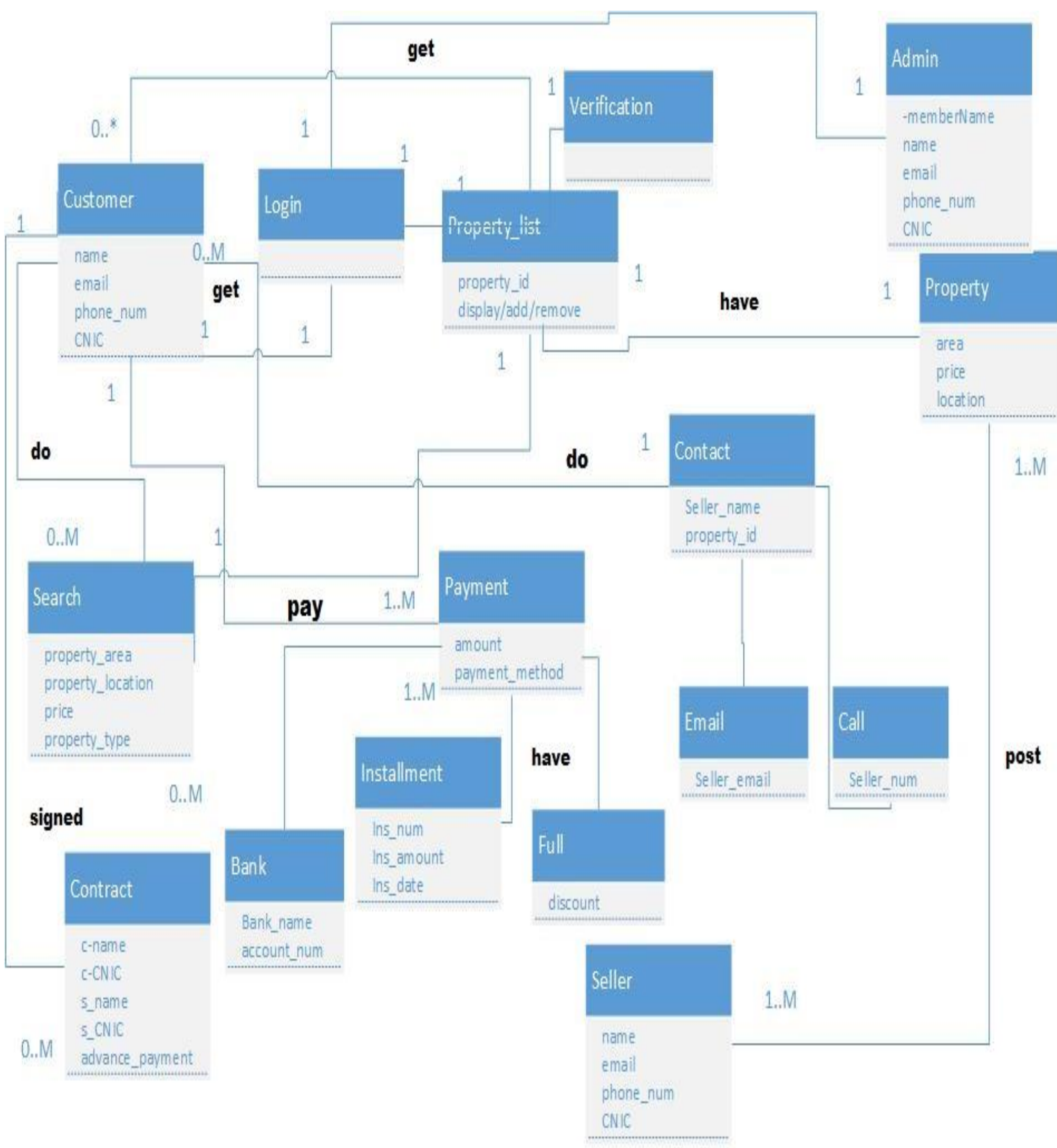
Seller enter property details.

· Extensions:

If property details are incorrect then edit the details and enter correct details.

UC13: Logout

Customer, seller and admin logout to their accounts after certain operations are performed.

Domain Model

Online Property Management System

Glossary of Domain Model:

Customer: It is a person who wants to purchase property.
Name: Name of a buyer
Email: Email address of a buyer

Number: Phone no of a buyer

CNIC: CNIC number of a buyer

Seller: It is a person who wants to sold property.

Name: Name of a seller

Email: Email address of a seller

Number: Phone no of a seller

CNIC: CNIC number of a seller

Admin: It is a person who manages the property.

Name: Name of admin

Email: Email address of admin

Phone_Num: Phone no of admin.

CNIC: CNIC number of admin.

Payment: It is an amount for purchase property

Amount: Money in rupees.

Payment_Method: whether payment is place through bank or cash.

Installment: installment paid by buyer.

Amount: amount paid per installment.
Ins_date: installment date on which installment has to pay.

Ins_num: number of installment from total number of installments.

Full: total amount paid by customer.

Discount: whether discount is given to customer or not if yes then how much?

Search: Customer search a property according to his requirements.

Property_Area: area of property.

Property_location: Location of property.

Property_Type: It is a type of property that buyer wants to buy a house, farmhouse or plot. **Price:** Amount of the specific property

Contact: the buyer wants to contact a seller before the contract.

Seller_name: name of seller of specific property in which customer is interested. **Property_id**: Id of property in which customer is interested.

Call:

seller_num: number of seller of specific property in which customer is interested.

Email:

Seller_email: email address of seller of specific property in which customer is interested.

Booking: It is a booking for purchase a property.

Property_id: Id for booking

Detail: Booking details for a specific property

Contract: It is a document of prove that buyers is the owner of this property.
Property_id: Id for property
c_Name: Name of a buyer

c_CNIC: Identity Card no of a buyer

s _Name: Name of a Seller

s_CNIC: Identity Card no of a Seller

Advance_Payment: amount paid in advance.

Property_List: It is a list of properties

Property_id: Id for property

Enter/remove/Show: Enter or remove specific record in list. Show list of properties

Property: these are the details about properties

Area: Area or place in which property is located

Price: Price of the property

Location: Exact places at which properties are located

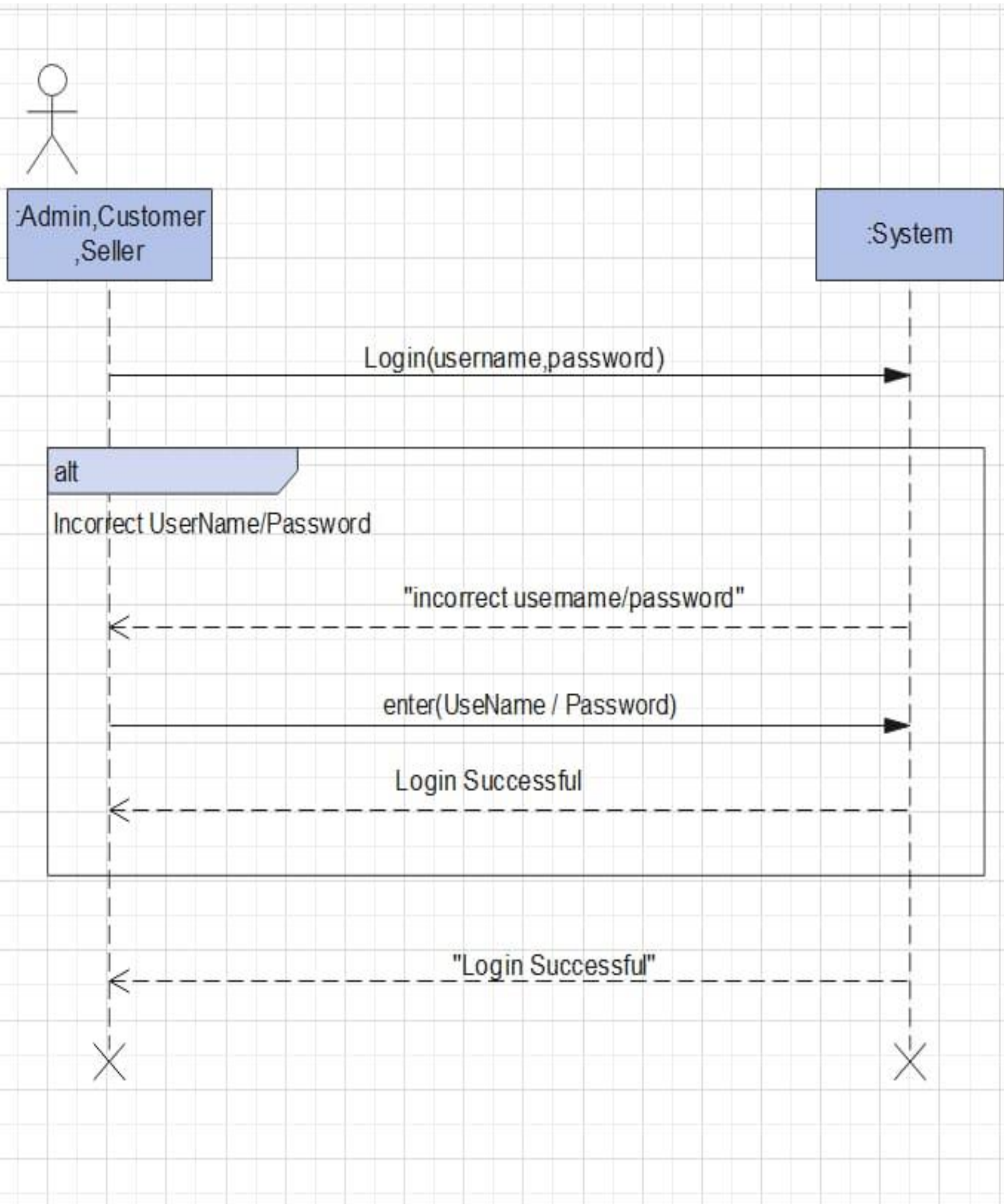**Bank:** it is the bank from which customer pay through drafts.

Bank_name: name of the bank.

Account-num: account number of customer.

Verification: when seller, customer or admin login verification is perform through some methods.

System Sequence Diagram's

SSD 1: Login

SSD 2: Search Property

SSD 3: Manage Record

Admin

:System

Alternative

[Admin opt to approve]

approve(property_id)

add_property(property_id)

"successfuly added"

[Admin opt to delete]

delete_property(property_id)
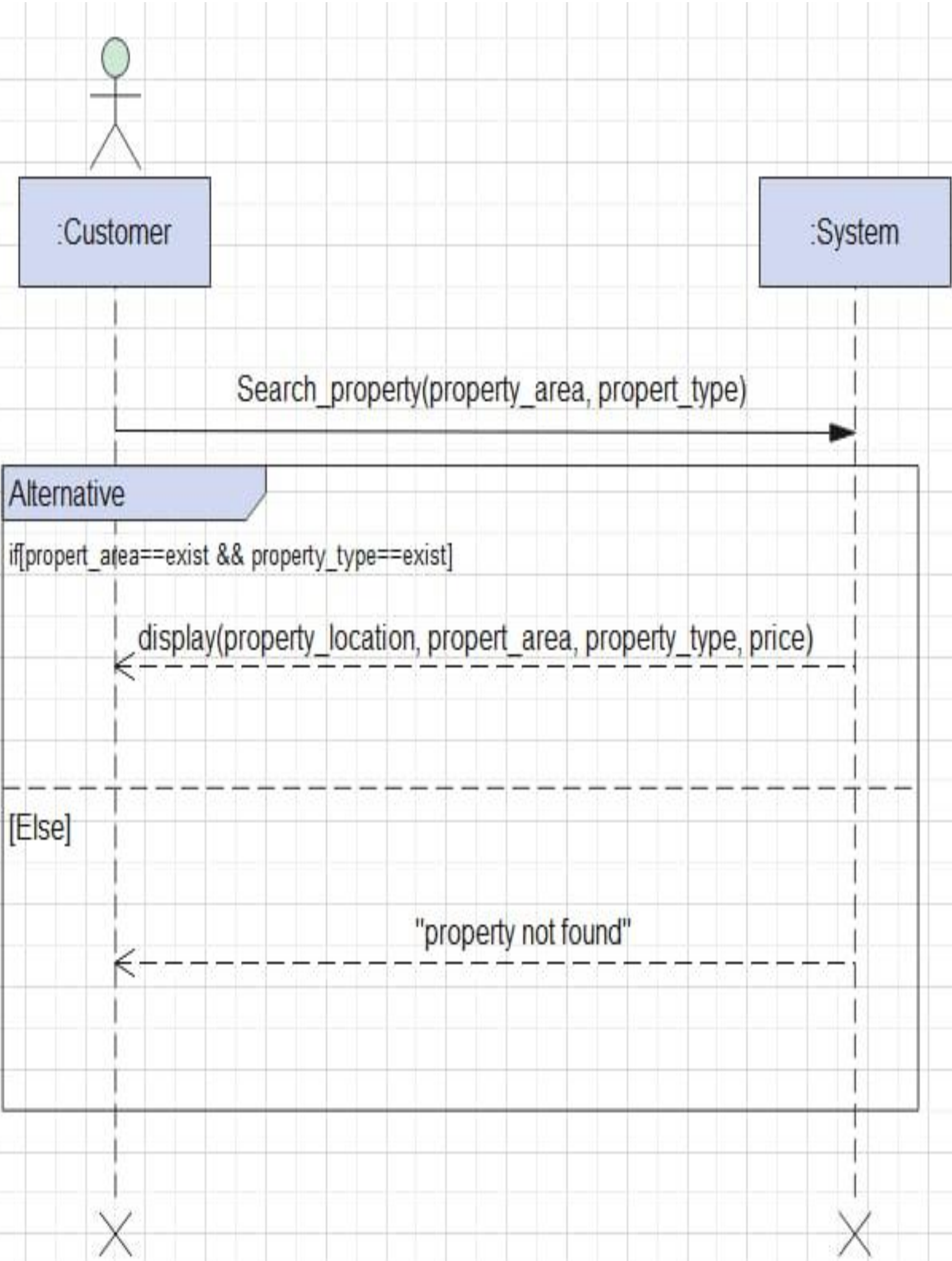
"property successfuly deleted"
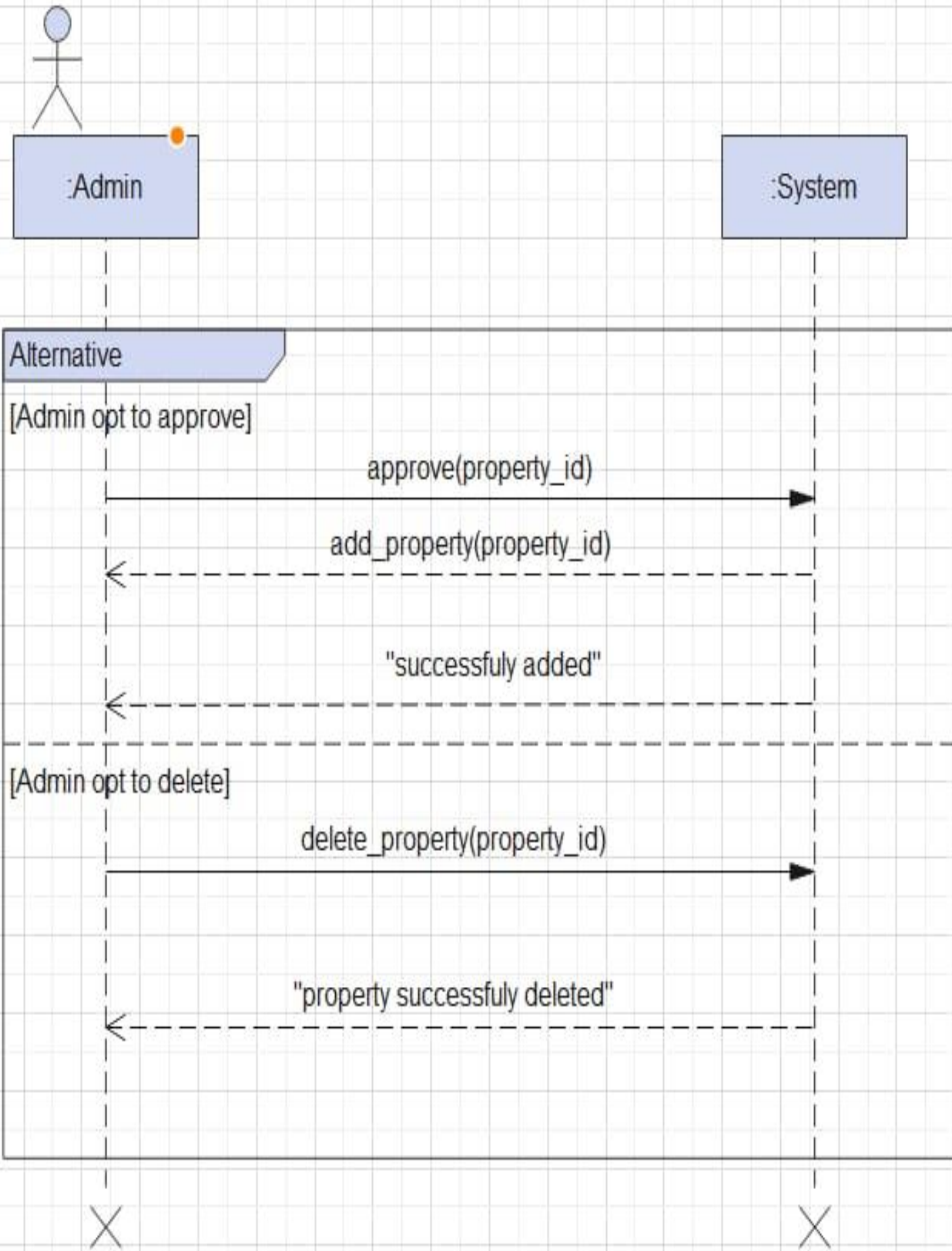
Activity Diagram:

AD 1:

Search Property:
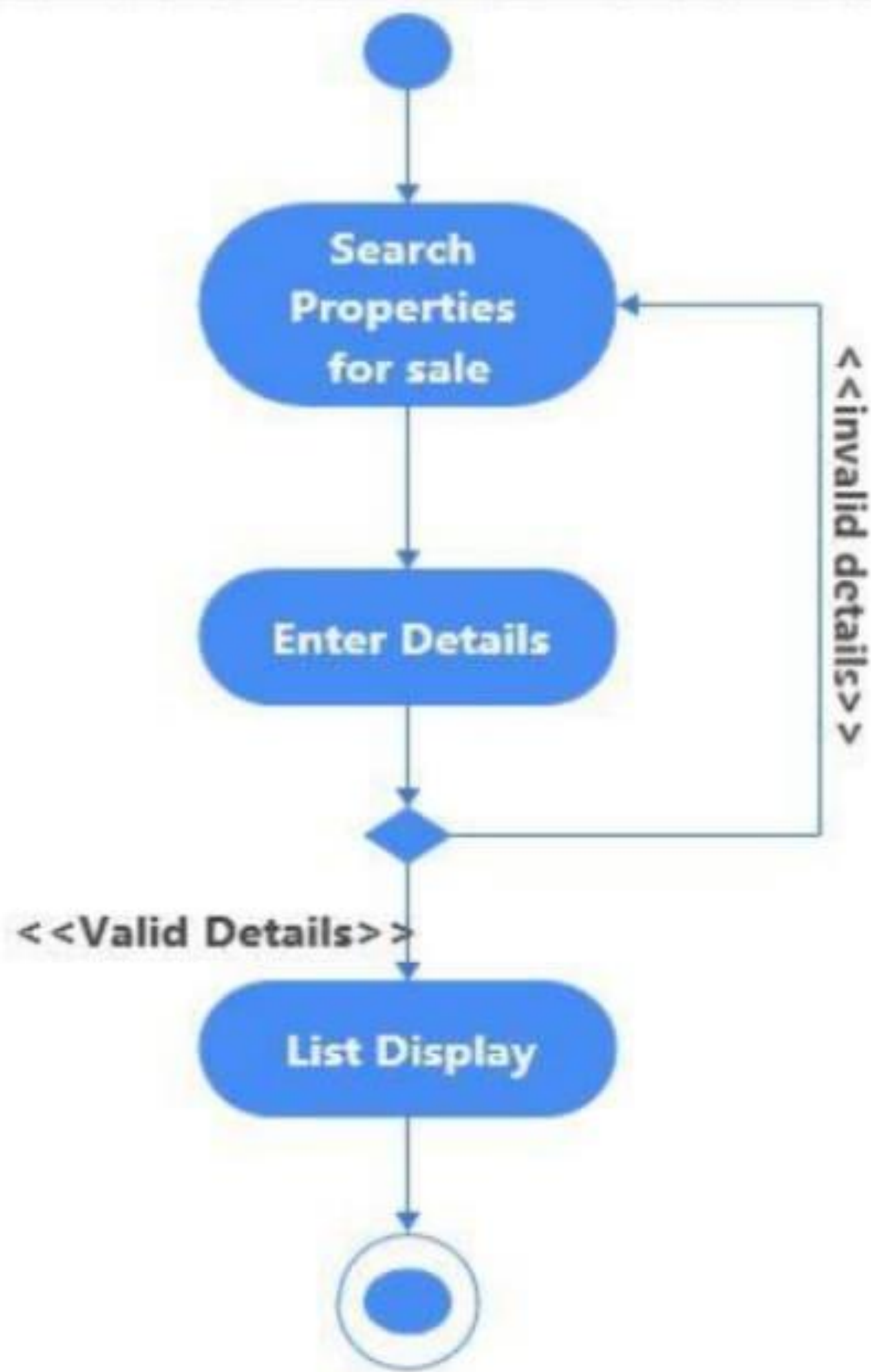
Contact Seller:
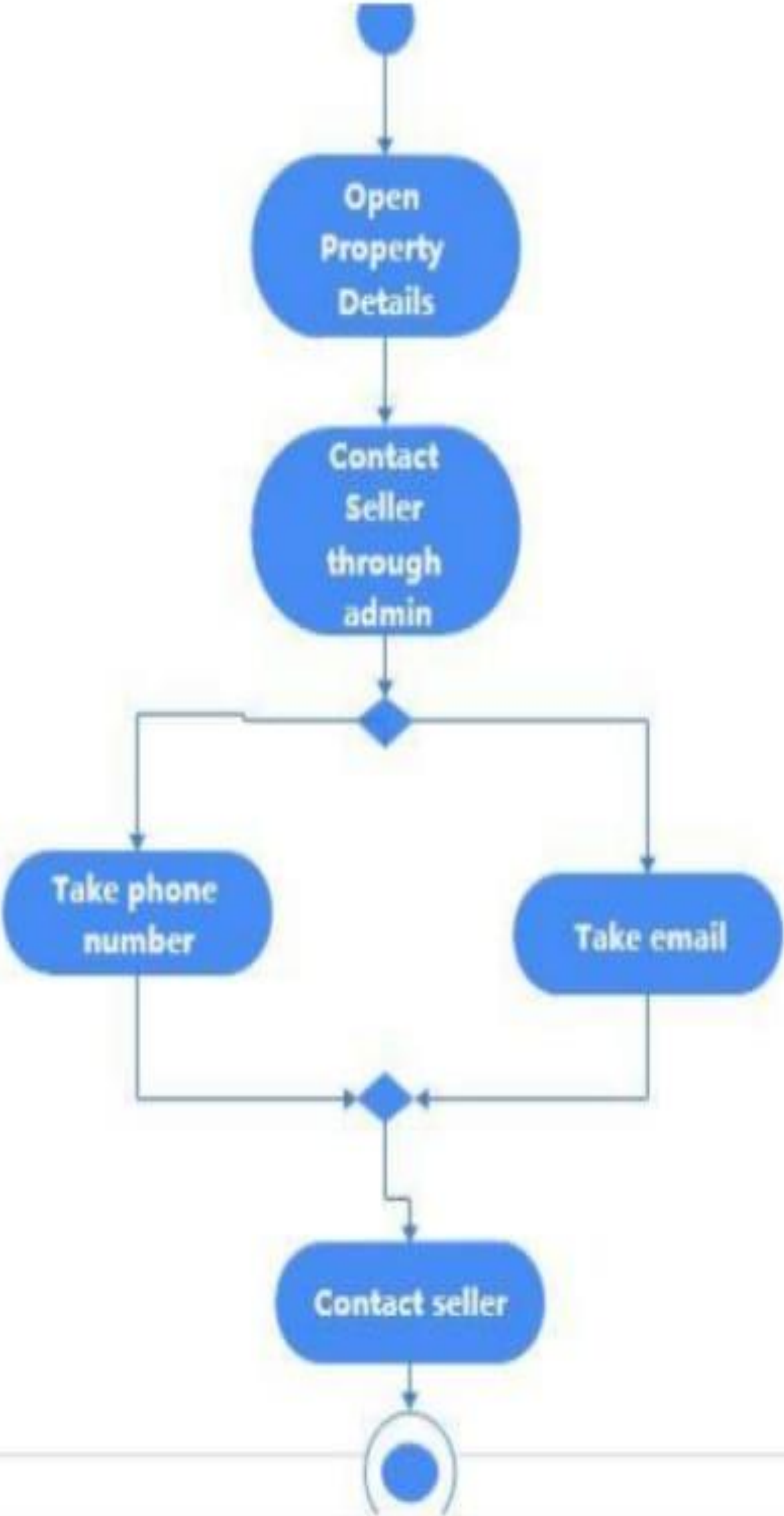
Make Payment

AD 4:

Post Property for Detail

Manage Record:

The diagram flow: Start → Login as admin → Manage Property Records → decision → (Delete property from list / Add property to list / Edit and display property list) → merge → End
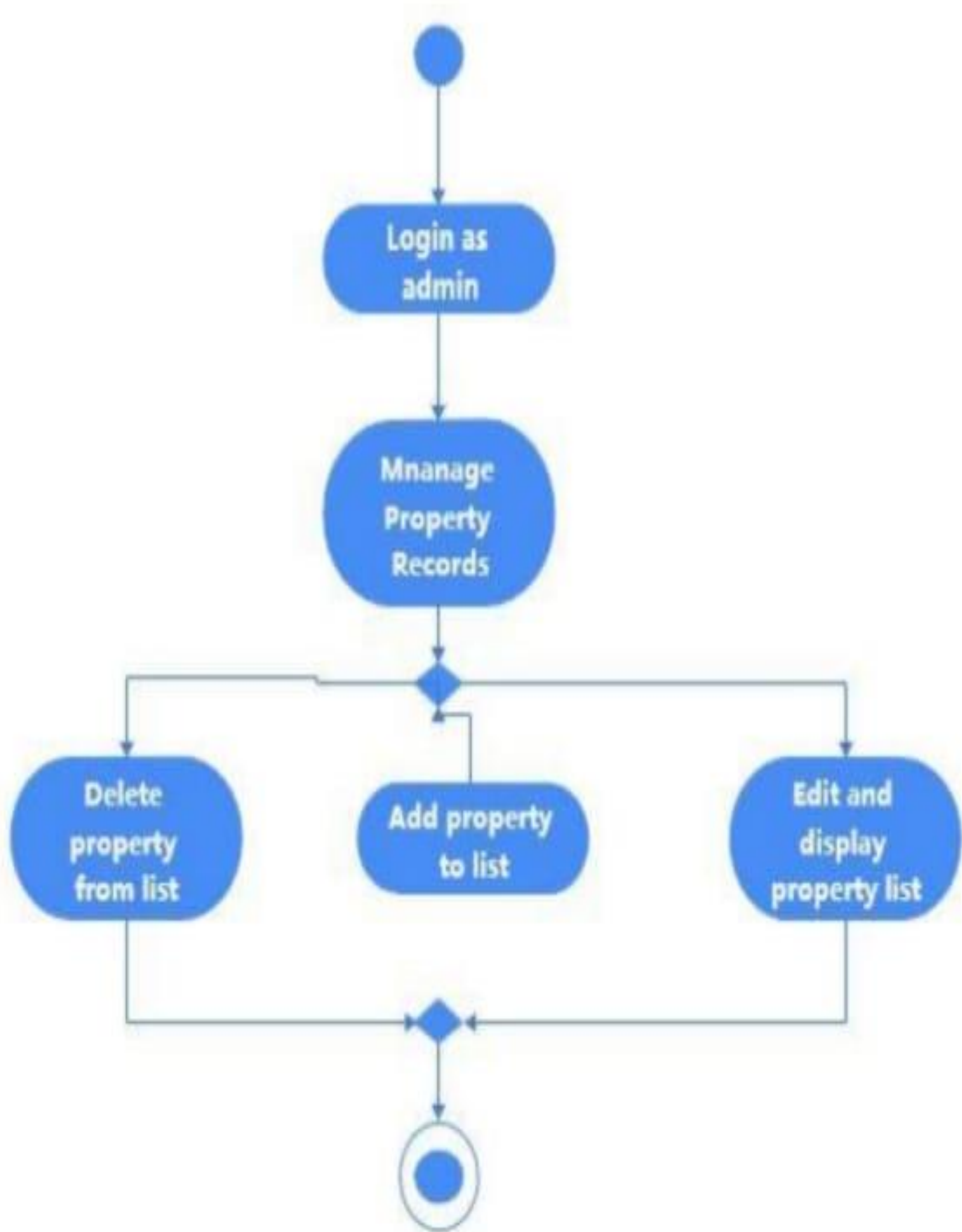
Interaction Diagrams (Sequence Diagram's):

SD 1: Search Property

SD 2: Manage Record

Class Diagram:

Class Diagram
Online PropertyManagement System

Customer
- -name :string
- -email: string
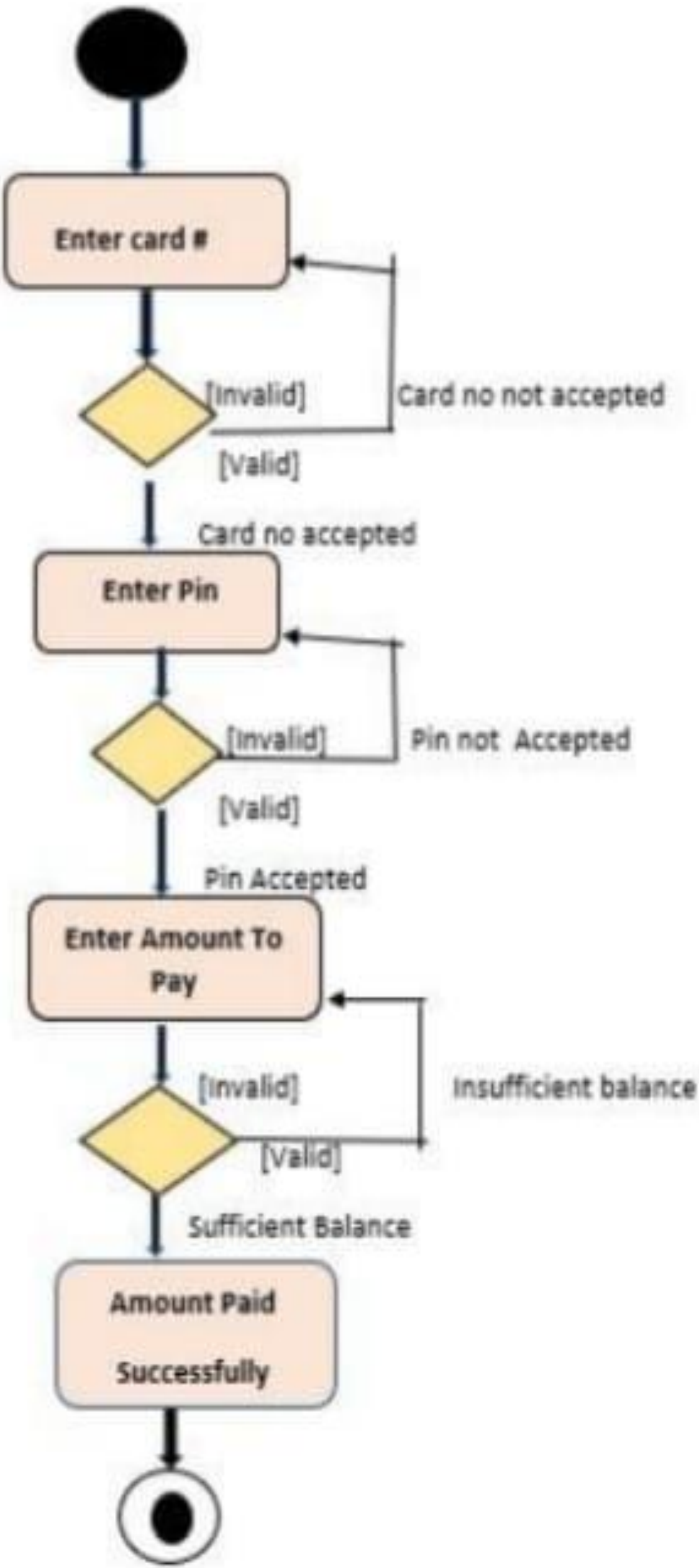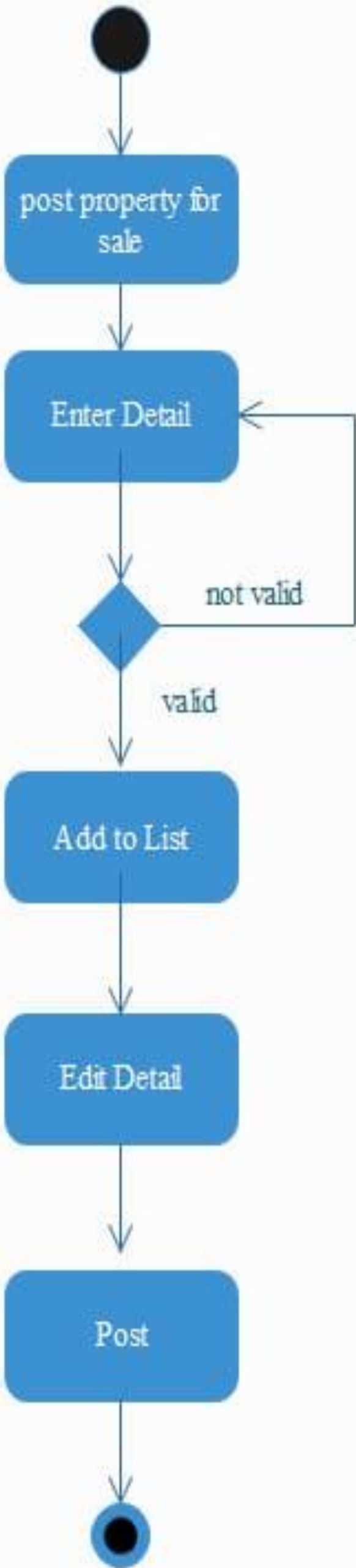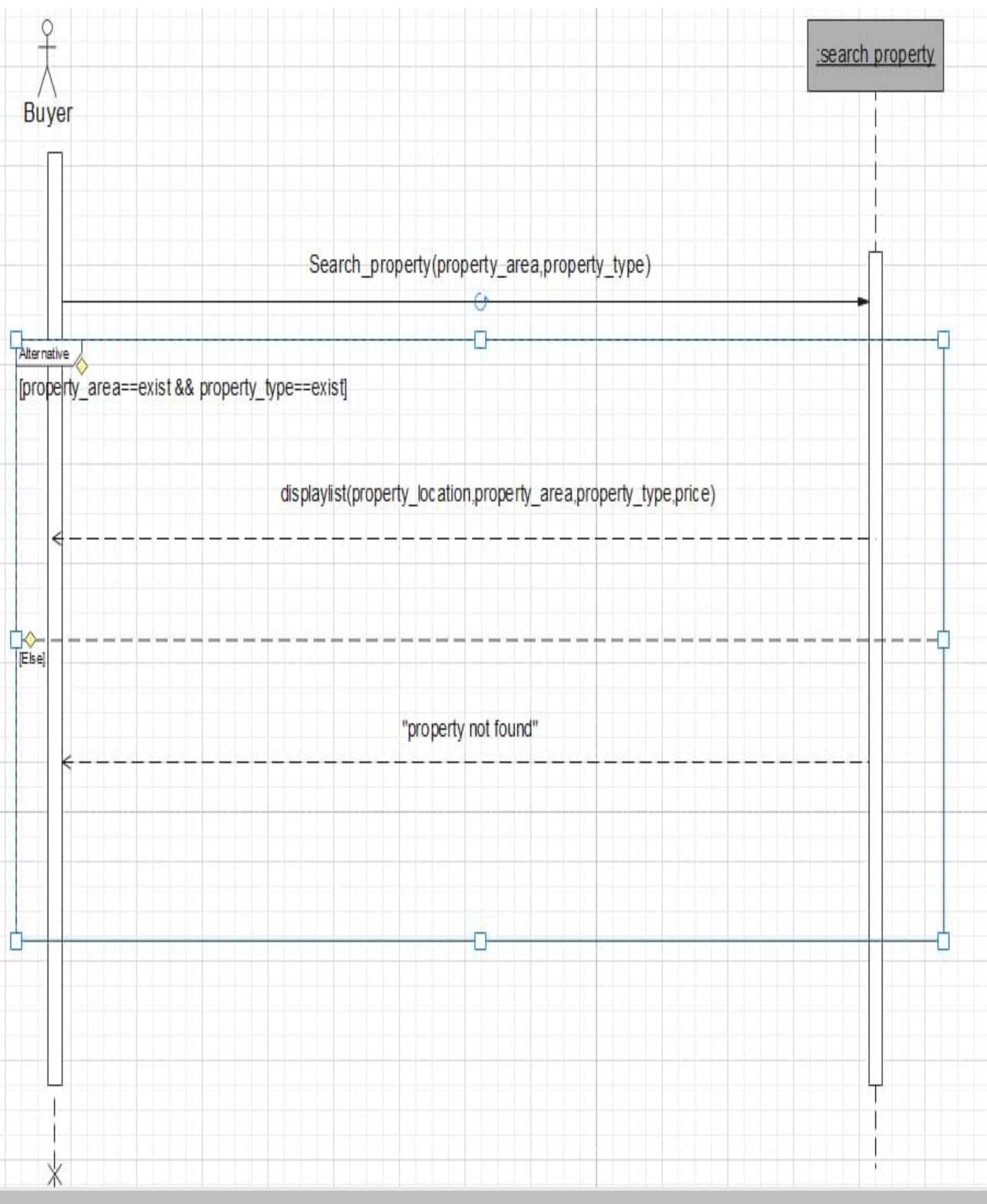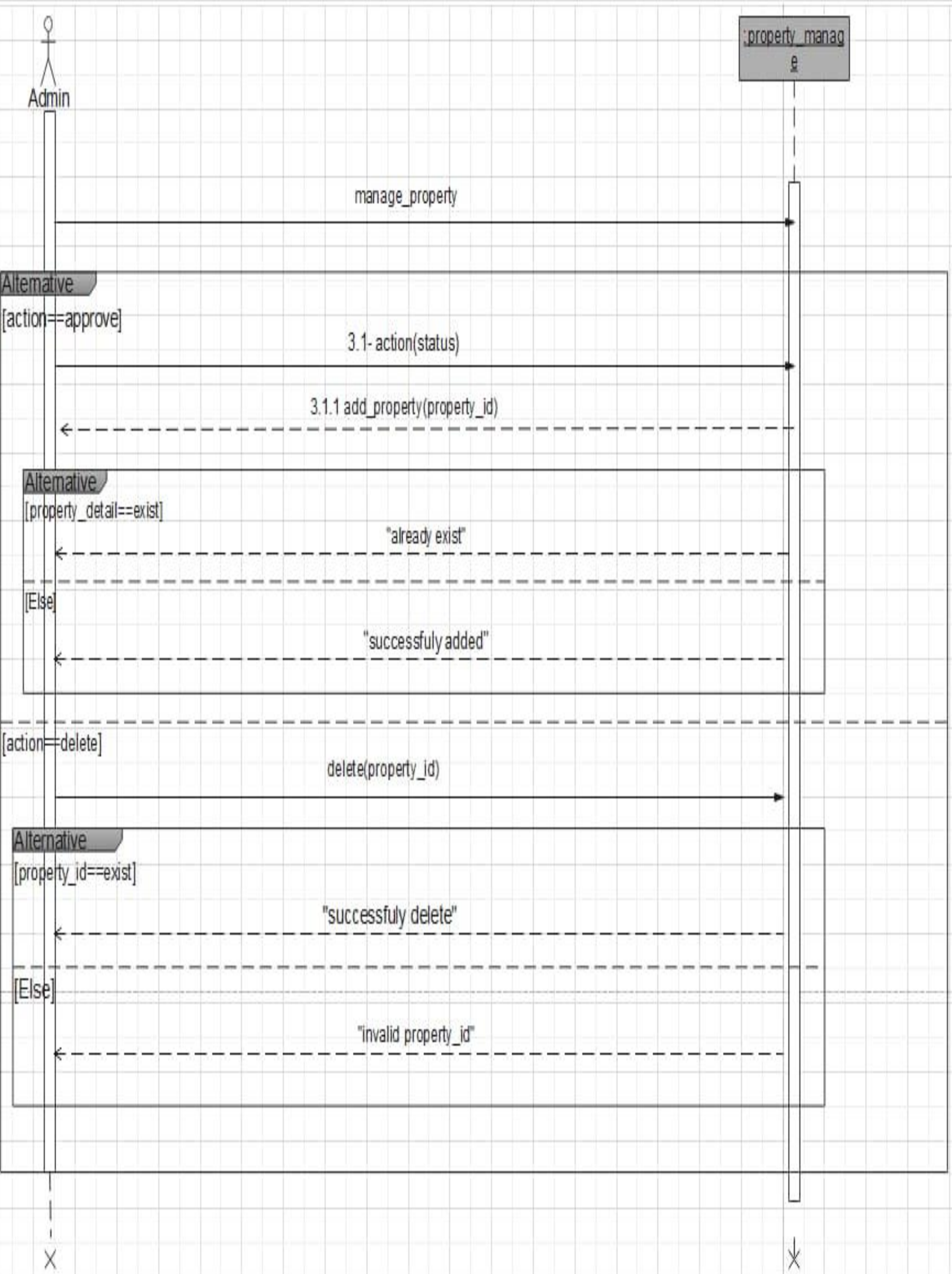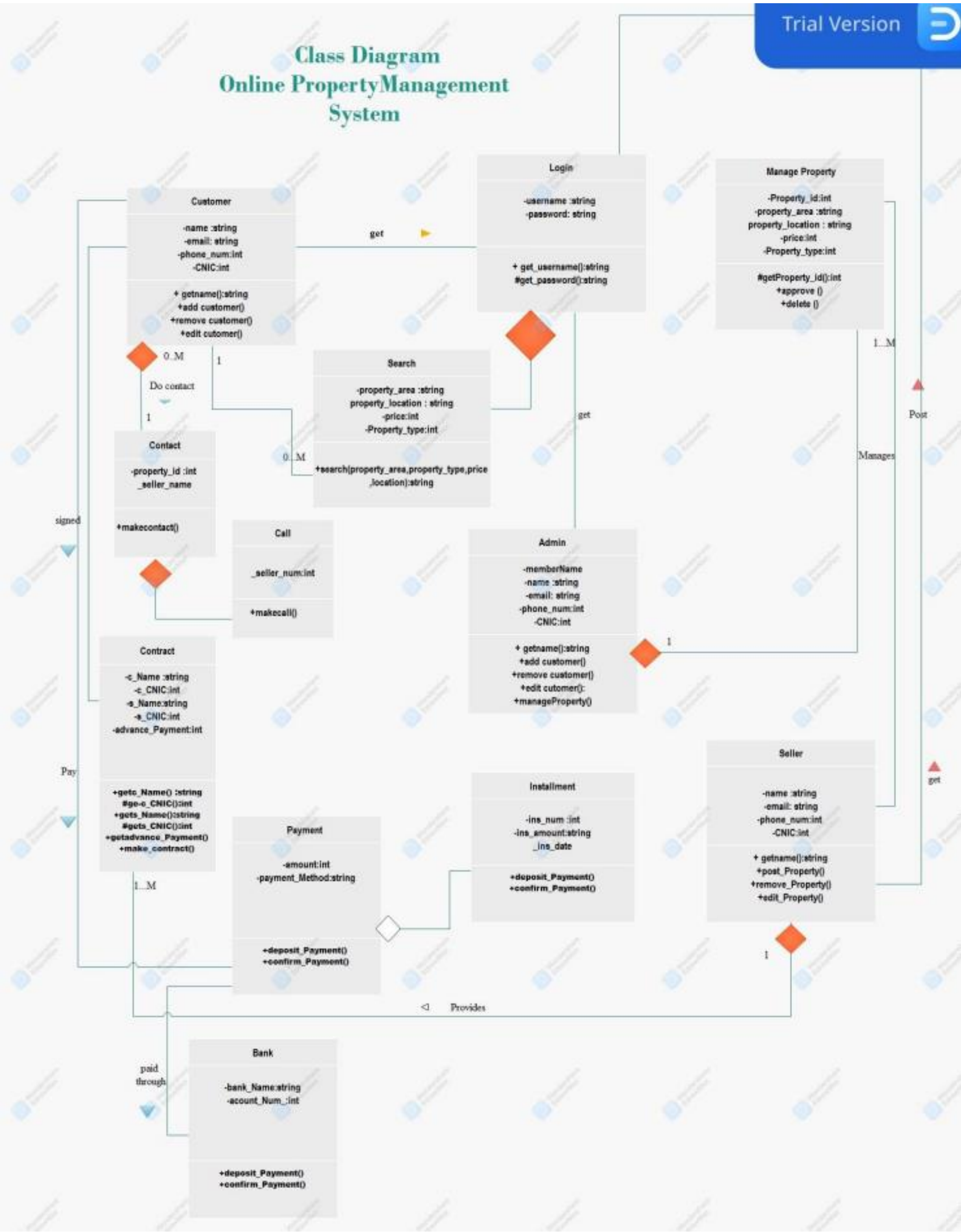- -phone_num:int
- -CNIC:int

- + getname():string
- +add customer()
- +remove customer()
- +edit cutomer()

Login
- -username :string
- -password: string

- + get_username():string
- #get_password():string

Manage Property
- -Property_id:int
- -property_area :string
- property_location : string
- -price:int
- -Property_type:int

- #getProperty_id():int
- +approve ()
- +delete ()

Search
- -property_area :string
- property_location : string
- -price:int
- -Property_type:int

- +search(property_area,property_type,price ,location):string

Contact
- -property_id :int
- _seller_name

- +makecontact()

Call
- _seller_num:int

- +makecall()

Admin
- -memberName
- -name :string
- -email: string
- -phone_num:int
- -CNIC:int

- + getname():string
- +add customer()
- +remove customer()
- +edit cutomer():
- +manageProperty()

Contract
- -c_Name :string
- -c_CNIC:int
- -s_Name:string
- -s_CNIC:int
- -advance_Payment:int

- +getc_Name() :string
- #ge-c_CNIC():int
- +gets_Name():string
- #gets_CNIC():int
- +getadvance_Payment()
- +make_contract()

Installment
- -ins_num :int
- -ins_amount:string
- _ins_date

- +deposit_Payment()
- +confirm_Payment()

Seller
- -name :string
- -email: string
- -phone_num:int
- -CNIC:int

- + getname():string
- +post_Property()
- +remove_Property()
- +edit_Property()

Payment
- -amount:int
- -payment_Method:string

- +deposit_Payment()
- +confirm_Payment()

Bank
- -bank_Name:string
- -acount_Num_:int

- +deposit_Payment()
- +confirm_Payment()

get · Do contact · 0..M · 1 · signed · Pay · 1..M · paid through · Provides · Manages · Post · get · 1 · 1..M · 0..M · 1