



HOUSE RENTAL MANAGEMENT SYSTEM

Team Members

01

Wakil Ahammad
ASH2025026M

02

Mir Mohammod Tahasin
MUH2025007M

03

Suraiya Akter
BKH2025013F

04

Sumaiyea Akter Prema
BKH2025023F

05

Mithun Sarkar
MUH2025029M

PREPARED FOR:



Dipok Chandra Das

ASSISTANT PROFESSOR
INSTITUTE OF INFORMATION TECHNOLOGY
NOAKHALI SCIENCE AND TECHNOLOGY UNIVERSITY

MOTIVATION

The house rental system provides a way for people to access housing without having to own or purchase a home. House rental systems provide a means for property owners to earn income by leasing their property to tenants. Tenants benefit by having access to a place to live without the financial commitment of purchasing a home. This arrangement is a convenient and flexible solution for individuals and families who may not want to commit to a long-term mortgage or who need to relocate frequently. Additionally, rental systems often include services such as maintenance and repairs, making it a hassle-free option for both landlords and tenants. Overall, house rental systems provide a practical solution for those seeking temporary or long-term housing.

SCENARIO:01

Case 1.1:

“A” is a owner of a house. He want to rent his house so that he add video, picture and location of his house.

- “A” log in the web portal
- Show Owner and Renter button in a drop down box
- Owner Button select show add , promote ,modify option.
- Add Option show when add option clicked show picture,video and location.
- “A” want to add pictures so he click picture then select the picture of his house then click OK.
- “A” also want to add videos so he click video then select the videos of his house and click OK.
- Show a search box where Enter the location of this house, also use GPS in bottom corner.
- Then hits ok.

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SCENARIO:1(CONT.....)

Case 1.2:

His house is not going on rent, so he want to advertise it on a online based platform.

- Same as (1.1)
- Select promote option

Show a Drop down box where shows promoting payment & time limit where click only one.

- “A” choose one then show payment process and on the button show some button (Bkash, Nagad, Rocket, credit & debit card)
- Hits a button then show search box for phone number,from contact button and send OTP button.
- Number enter and hits send OTP button then send a OTP to desire number .
- He add the OTP and payment Proccess done.

Read More >>

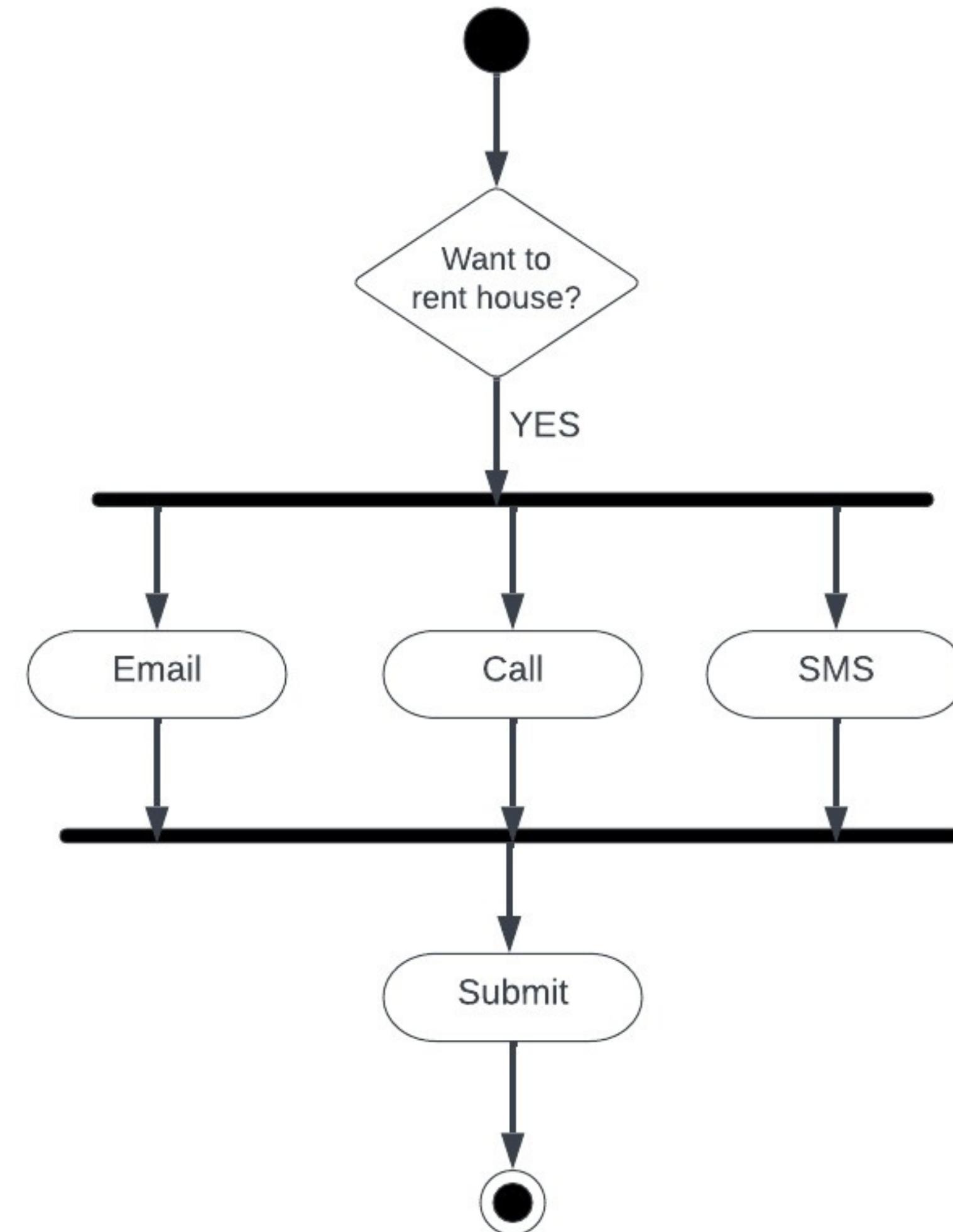
Use Case description for Rent House

Table 8: Rent House

Use Case 8	Rent House	
Goal	Message, call, email the owner if tenants like a home	
Preconditions	Tenants/Owner are signed in.	
Success End Condition	Conversation With owner and confirm this house if want.	
Failed End Condition	Owner Doesn't reply messages or receive calls or reply emails.	
Primary Actors: Secondary Actors:	Tenants, Owner	
Trigger	Click on Call, SMS, Email, Button	
Main Success Flows	Step	Action
	1	Users Messaged to owner for rent house.
Alternative Flows	Step	Branching Action
		No alternative flow.
Quality Requirements	Step	Requirement
		The system call, SMS, Email must respond fast

Activity diagram

Rent House



SCENARIO:2

Suppose B is a Tenant. He is searching a house in an unknown location. He don't have a specific knowledge about this location. Also he faced a lot of troubles while searching a good house with a cheaper rate. So for removing the troubles he searched for a online based house to-let system. Then he clicked on the system and do the following:

- B enter the application
- Show Have an account button?
- If yes, then go to the sign in page.
 1. Sign in with the user name and password.
 2. Then click submit and go to the homepage.
 3. If password is incorrect, then show wrong password and write again.
 4. If forgot password, then send a OTP to the phone number of the user.
 5. Change the password with the valid OTP.

SCENARIO:2(CONT...)

- If not, then go to the sign up page.
 1. Fill up the username, email or phone number, password and confirm password and NID in the textbox.
 2. Then click to “Registration” Button and go to the homepage.
 3. If Username is already been used, then show user-name is already been taken and show put new username.
 4. If Phone number or email address is already been used, then show phone number or email address is already been taken. Then show put new email address or phone number.
 5. If everything okay, then access to the homepage.

Case 2.2: Now B is in the Homepage.

- Show a search box with a search button.
- Search for a specific location in the search box and click on the button.
- Show all the houses related to the search location.

REQUIREMENT ELICITATION TECHNIQUE



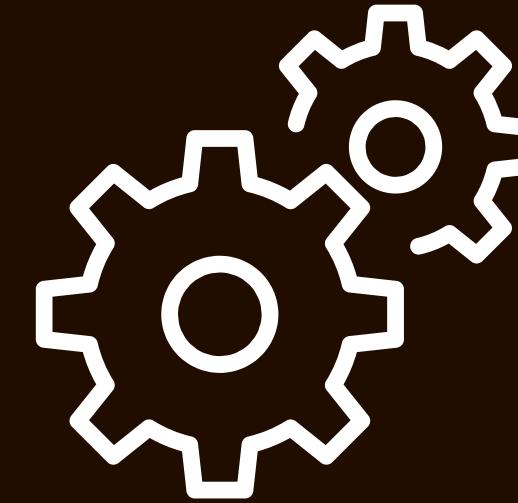
Interview



Questionnaire



Existing System



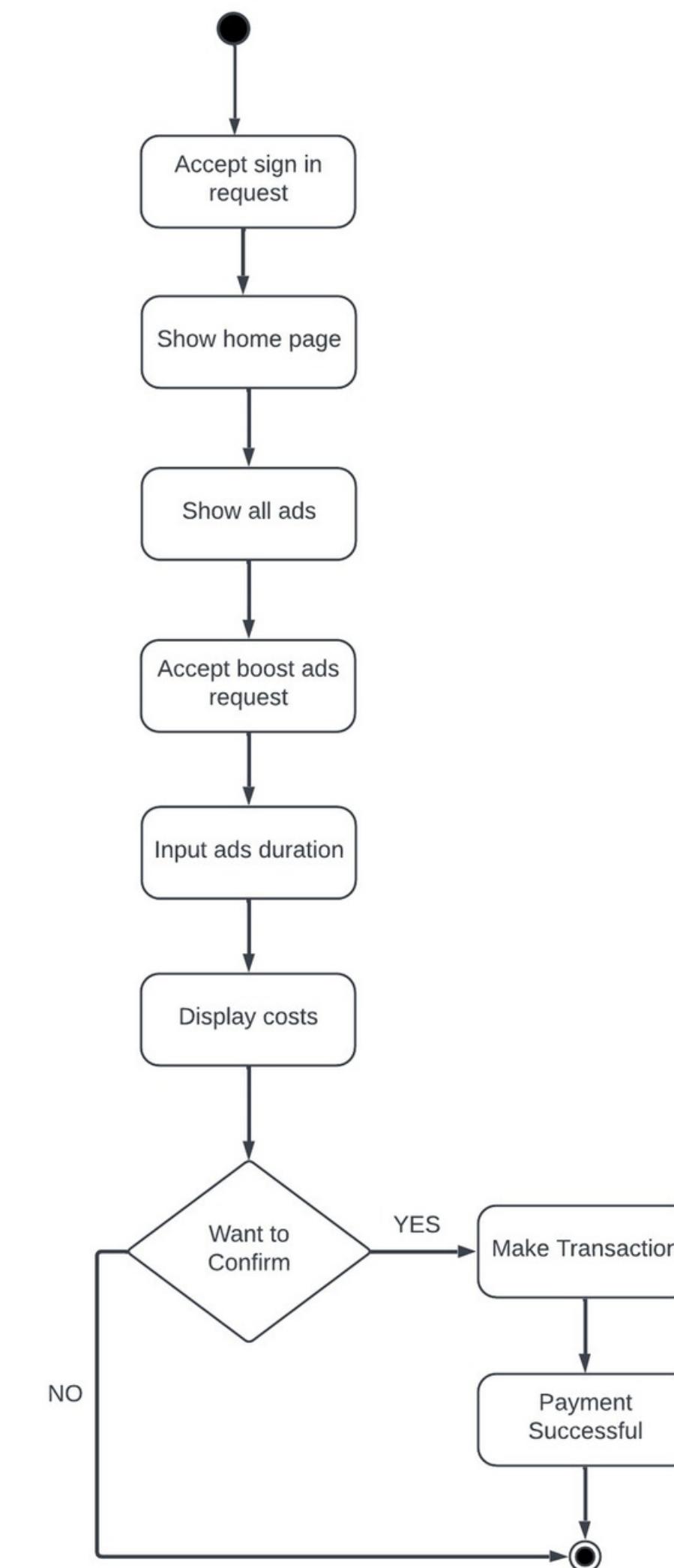
Use case description: **Boost Ads**

Table 19: Boost ads

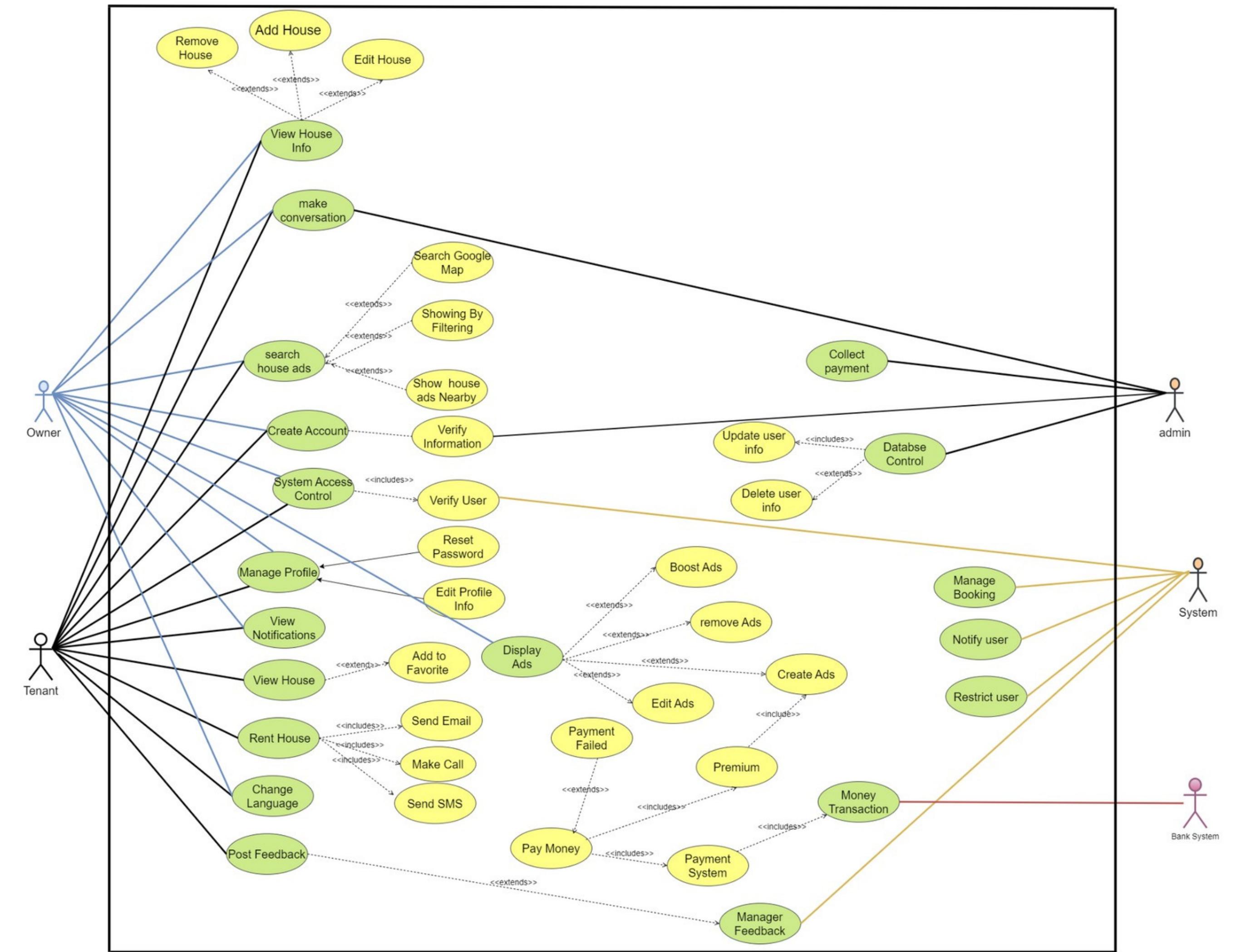
Use Case 19	Boost ads	
Goal	Owner wants to boost his created ads.	
Preconditions	Owner is signed in. Owner has created ads. Owner selected an ad.	
Success End Condition	Owner successfully <u>boost</u> his created ads.	
Failed End Condition	Owner failed to boost his created ads.	
Primary Actors: Secondary Actors:	Owner	
Trigger	Boost ads request.	
Main Success Flows	Step	Action
	1	Owner request to boost his created ads
	2	System will prompt Owner that how many days he wants to boost <u>his ads</u> .
	3	Owner will provide boost duration as days.
	4	Then system will calculate total cost for boosting that ads by multiply per day boosting cost with total boosting duration.
	5	System will boost the ad and update the ad as boosted ads.
Alternative Flows	Step	Branching Action
	4a	Owner selected not to boost the ad and clicked cancel.
	Quality Requirements	Requirement
	The feature should have minimal impact on performance, with quick response times and minimal lag or delay when boosting an ad.	

Activity diagram

Boost Ads



Use case Diagram



Questionnaire

Questionnaire for landlords:

- What type of problem do you face to get your home rented?
- What kind of information do you collect from tenants?
- How secure do you think collecting money from tenants by online payment method?
- How secure do you feel it is to advertise your home in online?
- In your opinion how much should each ad cost per day?
- What is your opinion about our online review system?
- What other features or facility do you think should be added to this system?

Questionnaire

Questionnaire for tenants:

- Tell us your opinion about this system.
- When you want to rent a house, then what type of information is important to know about that house?
- What is your opinion about our online review system?
- What type of security do you need from this system as a user?
- What other features or facility do you think should be added to this system?

Table 22: Make Payment

Use Case 22	Make Payment	
Goal	Owner want to make payment	
Preconditions	Owner are signed in.	
Success End Condition	Payment successful for created ads.	
Failed End Condition	Insufficient money on the selected financial service.	
Primary Actors: Secondary Actors:	Owner Bank system	
Trigger	Transfer money for creating ads.	
Main Success Flows	Step	Action
	1	System will give a request to the specific mobile financial bank selected by the Owner for getting transaction of an amount.
	2	System will provide the amount of balance and the mobile number.
	3	Mobile bank will validate whether the given account has sufficient balance for transaction.
	4	Mobile bank will transfer that amount of balance from mobile bank to system bank.
	5	System then ask the stakeholders to enter the transaction id sent from mobile bank to the mobile number (financial service number).
	6	Getting full amount of money system will show a notification that the amount payment successful. And either add ads or remove ads or boost ads or edit ads.
Alternative Flows	Step	Branching Action
	3a	Account has insufficient balance.
	Step	Requirement
Quality Requirements		1. The feature should be secure, with appropriate measures in place to protect users' personal and financial information from unauthorized access or breaches.

Use case description: Make Payment

Activity diagram: Make Payment

Activity Diagram (Make payment)

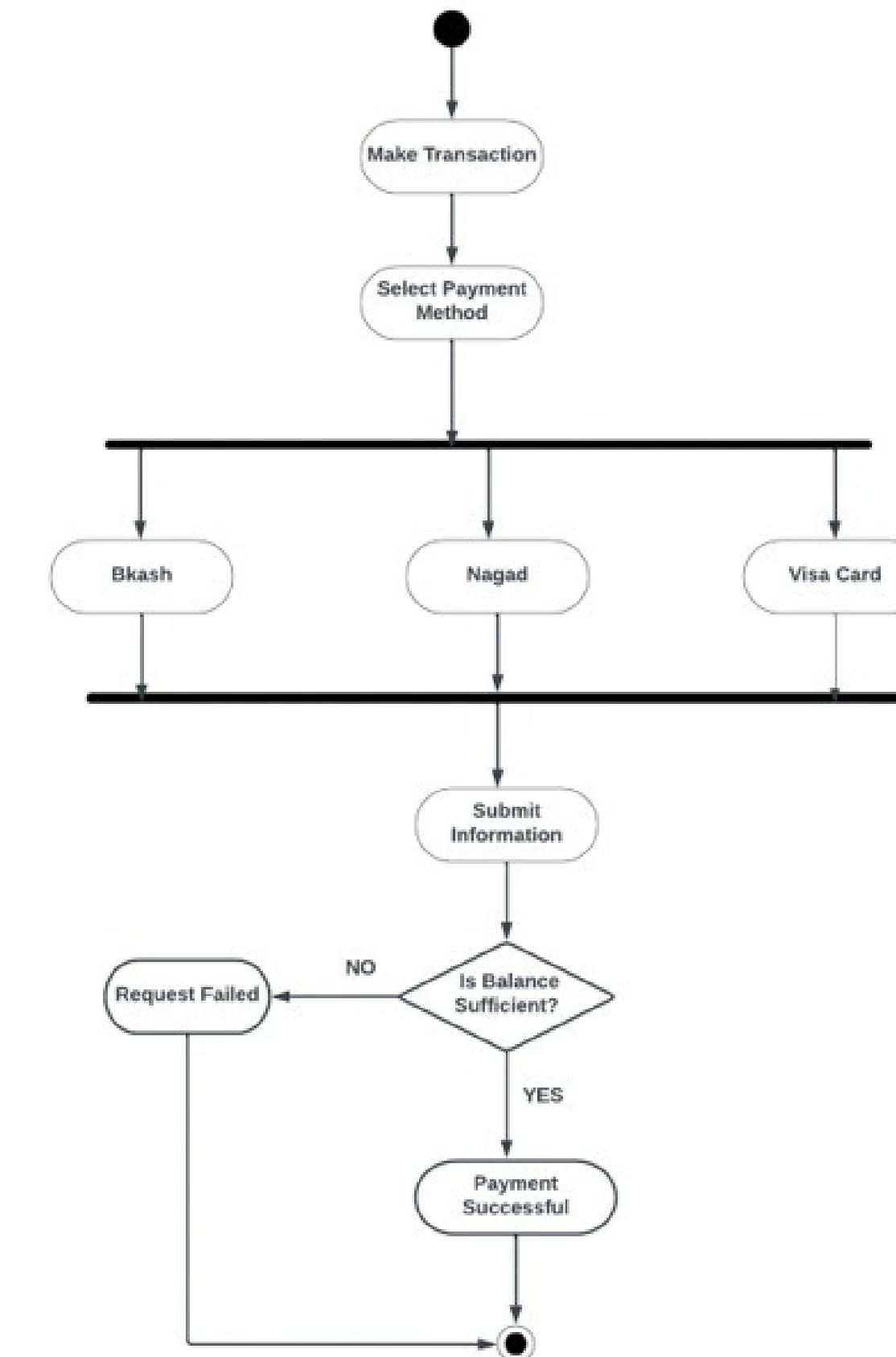


Figure 20: Money Transaction

Interview

- Short description about project(Goals and objectives)
- Registration process
- Ways of search a house
- Security
- Availability
- Advertisement of a house

Some Photos During Our interview

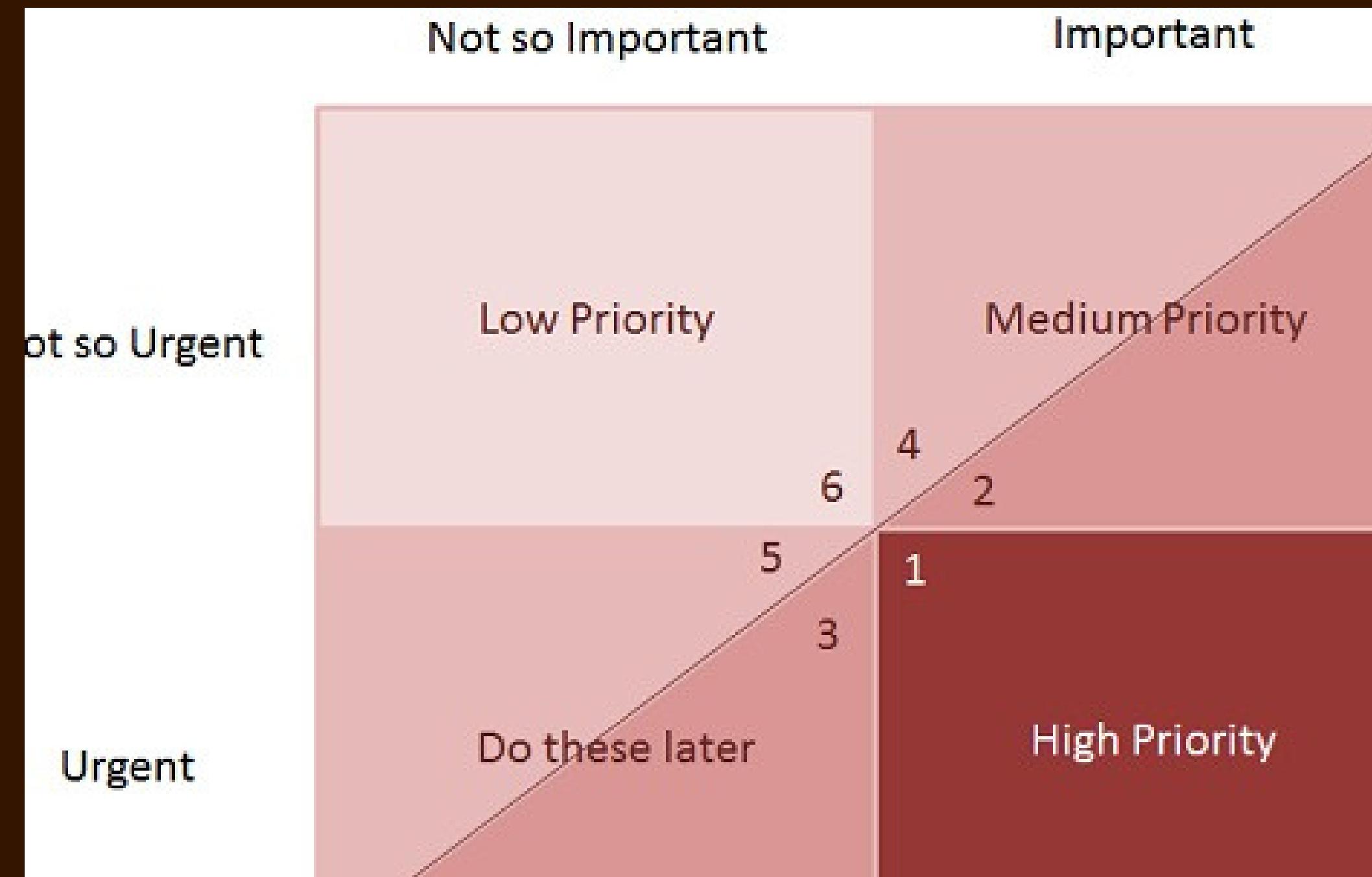


CHALANGES DURING ELICITATION

- Stakeholders Unwillingness to share information
- Incomplete or inaccurate information
- communication barriers
- reaching to landlords is tough
- time constraints

Prioritization technique requirements

Three level scale



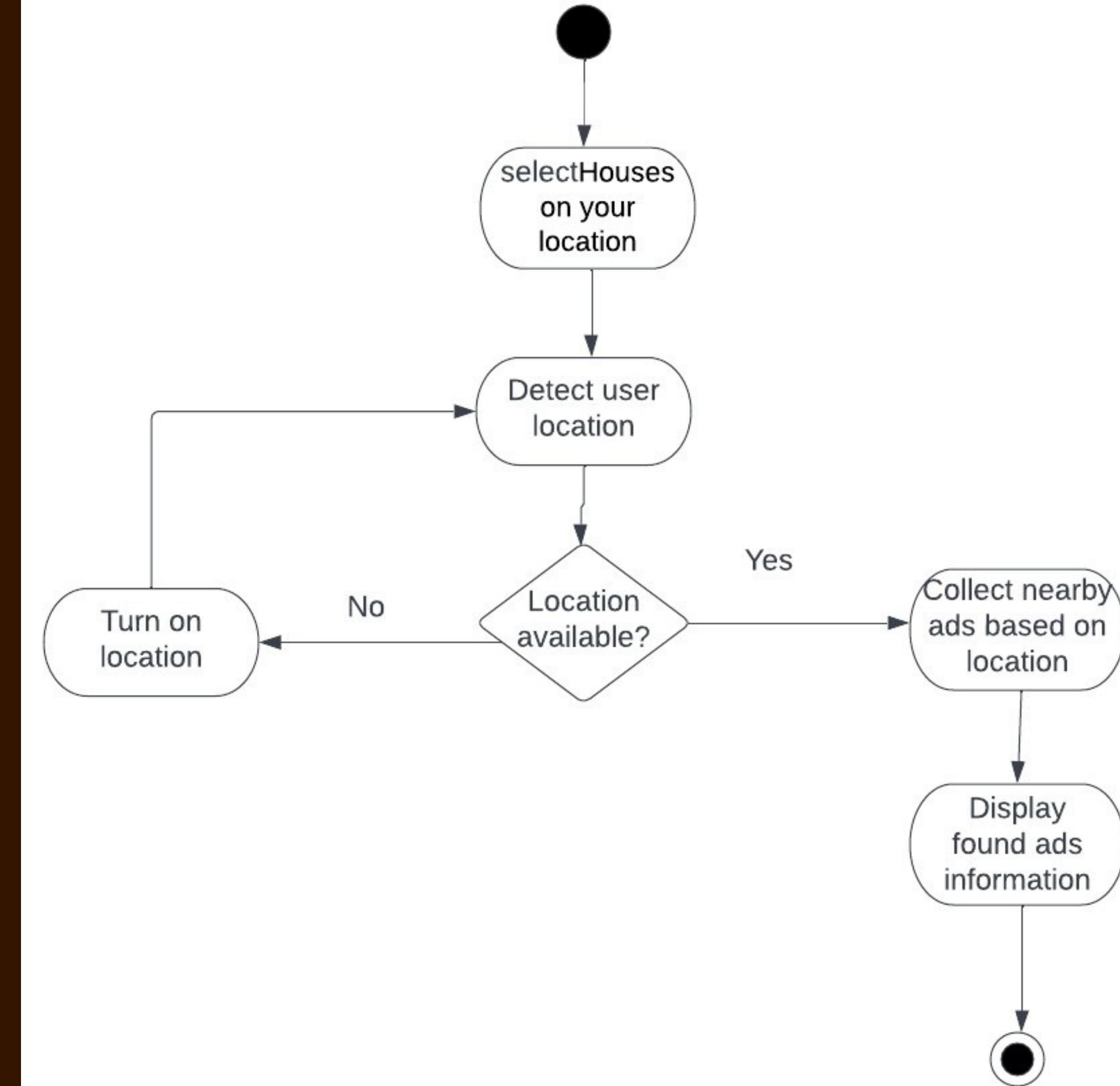
Use case description: Search House Nearby

Table 4: Search house nearby

Use Case 4	Search house nearby	
Goal	Users want to search house in his/her area.	
Preconditions	Users are signed in.	
Success End Condition	Users can see house ads near his/her area.	
Failed End Condition	No house found near user's area.	
Primary Actors: Secondary Actors:	Tenants Admin	
Trigger	Click on houses on your location	
Main Success Flows	Step	Action
	1	Users requested to click House on your location.
	2	System will detect user's location.
	3	System will search from the database server based on location captured from user's current location.
	4	System then shows houses which is matched the location at first then relatedads will show as related house section at last in the list.
Alternative Flows	Step	Branching Action
	2a	If system can't get access to device location, system will prompt the users to turn on the location service or send a notification to warn to search correct location and give system permission to access the location.
Quality Requirements	Step	Requirement
	1.	The system should be able to handle a high volume of searches and data without experiencing slow loading times or other performance issues.
	2.	The system should be secure enough to store user's location.

Activity Diagram

Search House Nearby



LIST OF CRITICAL REQUIREMENTS:

- Effective search and filtering capabilities.
- Secure payment system.
- Accurate and reliable property listings
- Responsive customer support
- Legal compliance
- Manage google map API

Difficulties and Negativities

Difficulties:

- Some Owner are not interested to discuss with us. Because they feel not much familiar with this system

Negativities:

- They are not familiar with review system.
- Owners are not interested to collect money by online payment method.

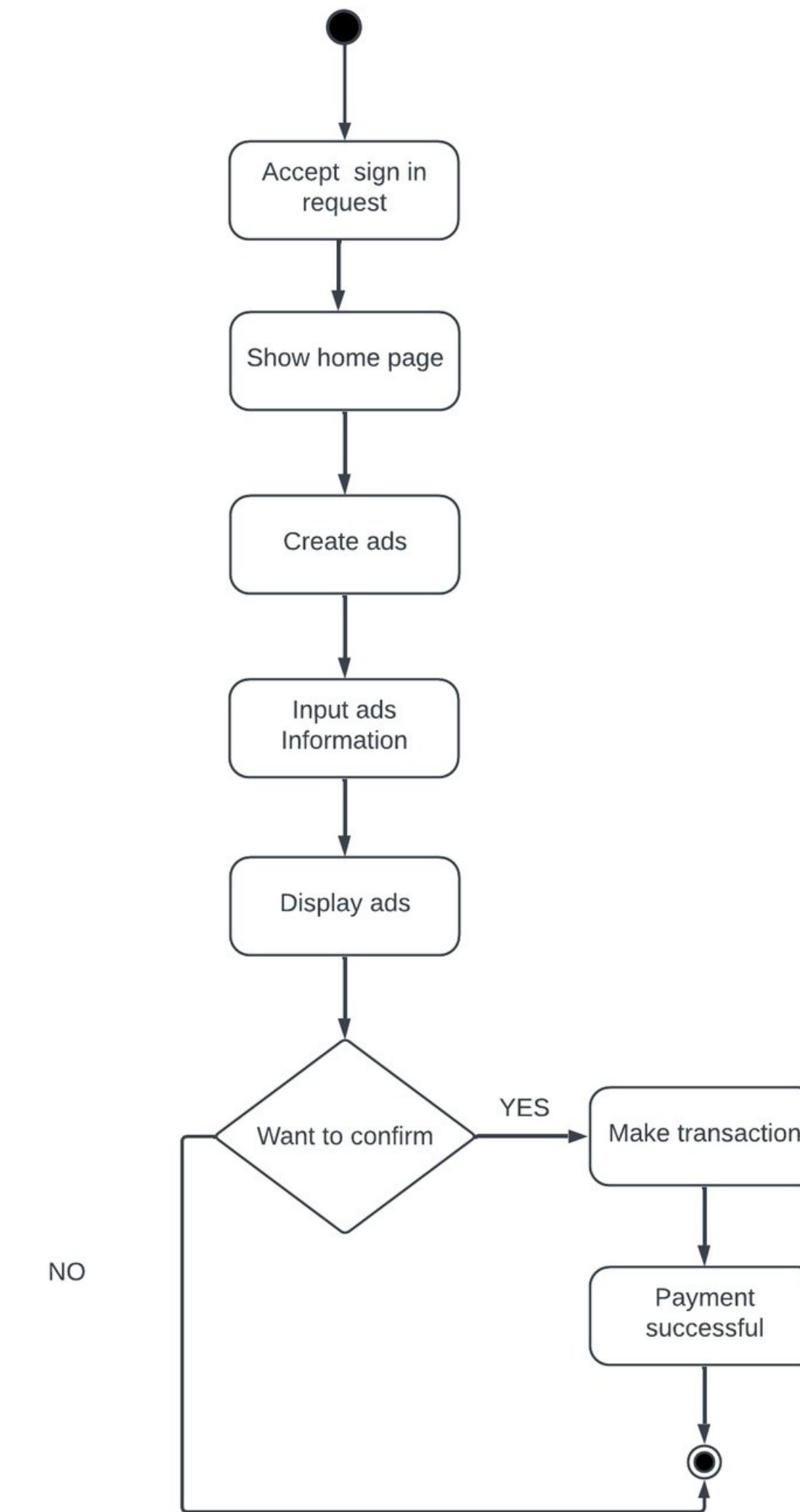
Use case description: **Create Ads**

Table 18: Create ads

Use Case 18	Create ads	
Goal	Owner wants to create his own ads.	
Preconditions	Owners is signed in.	
Success End Condition	Owners successfully create his house ads.	
Failed End Condition	No new ads created.	
Primary Actors: Secondary Actors:	owner	
Trigger	Create ads request.	
Main Success Flows	Step	Action
	1	Owners requested for creating new ads.
	2	System will display a form where Owners have to fill up by giving number of beds, rent per month, gas and water bill, picture of that house, deposit paid, terms and conditions to follow acceptance.
	3	After filling up all the information in the form Owners can submit ads information.
	4	System will request for providing ads duration (how many days ads will show) with a minimum of 3 days and maximum of 2 months.
	5	System will calculate total cost for that ads by multiply per day ads cost with total ads duration and display it below ads duration.
	6	System now <u>store</u> the ads information and show newly created ads in created ads list.
Alternative Flows	Step	Branching Action
	5a	Owners choose cancel option.
Quality Requirements	Step	Requirement
		Not applicable.

Activity diagram

Create Ads





THANK YOU