Group – 9

Assignment 4B

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1. **Project Topic**
   Replica for

2. **Overview**

Apartments.com is a website where users may look for and rent apartments anywhere in the world. The features we are revamping and adding will benefit both users and agents/owners. To improve user experience when searching for apartments, we want to overhaul the search bar, image arrangement, and search filters. We plan to create a new function, like a chatbot, to assist users with their fundamental needs. We will also devise a plan of action to get feedback from clients who have lived in such properties for at least six months to rate and review the properties. Implementation of an agent's profile page with their license number, as well as information on nearby amenities like pharmacies, grocery stores, and public transportation will also be looked after.

3. Product Objective

- To design the search box so that no irrelevant information, such as an apartment in a different location, is displayed.
- To enhance consumer a realistic representation of the rental property through 3D walkthroughs and videos
- Developing chatbot functionality to offer user-friendly customer care.
- Added and updated filtering options to suit users' requirements (1bed-1bath, 2bed-1bath, 2bed-2bath, or price) for purchasing rental property in a way that the presented results meet the user-specified standards.
- To provide consumers the option to rate and review properties so they may discover more about the properties.
- Creating an agent profile with information such as a license number, which results in a verified agent profile for advertising apartments.
- Providing consumers with information about nearby conveniences and the amenities (laundry, convenience shop, supermarket) available at the specified property.
- To only provide users with advertisements for unsold properties.
- To provide consumers the opportunity to book a tour with a rental agent to look at a particular rental home.

4. User Needs:

- Location is one of the most crucial factors when choosing a place to stay. The website needs to be more specified about the locations searched by the user. The user needs more clarified locations while they are searching for the apartment's details such as street address along with the search areas. Also, they expect the results of available apartments to be shown within that searched area only.

- The website should mention all the details of the convenient travelling facility near the apartment. The user needs detailed information of what modes of transportation are available for them, when he purchases the apartment.

- Utility should be included in the description so that the users get more details about the apartments. Also, specifically the user expects the details of the utility paid by the lessor and lessees.

- Included in the description of the website about the pet's policy. If the user has a pet or plans on getting a pet, the landlord's terms and conditions should be mentioned on the website. These should give detailed information about the pets allowed weight limitation and the rent charge.

- If the user filters for expected budget rent in certain areas, then the website is expected to show results within that range.

- The website must include all the facilities that are at walkable distance from the apartment. The list of facilities such as nearby restaurants, shops, pharmacy.

- With so many users parking is an important part of consideration's it is necessary to mention about those details on the website. If the user has a car or any other vehicle, then he will be able to park near the apartment and how much it will charge should be mentioned.

- While mentioning about the apartment it is very important about to know under whom the apartment belongs to i.e., under the management or landlord. Because this description is needful for user before applying for the apartment as he would be contacting him for further details.

- Users don't want to wait until your leasing office opens to receive a response from the team. Customers expect both convenience and immediate reply after they searched or asked questions about the apartment.

- For scheduling the tour, it is always important to check the availability of both user and landlords. So, the website can include the calendar that includes the availability of the landlords and user schedule the tour as per his availability

5. **Target Audience**
- **Age group:**
  14-70 years (Students, Men/Women, Old age people who are looking for apartments)
- **Location:**
  United States of America

6. Personas

Name:	John
Location:	New York
Job Title:	Product Designer
Bio:	Lives with his girlfriend
	Living in rented apartment, 2.5 rooms with his girlfriend and works at an MNC.
	After a long day at work, he likes to throw on the couch in front of the TV.
Goals & Needs:	Needs apartment which looks same in-person as the one posted on website
	Design the house at low investment and without any effort.
Frustrations:	Unable to provide feedback for apartments whose in-person tour was taken so new customers might not be mislead.
	Damaged interior kept unrepaired by management because of previous renters.

Name:	Emily
Location:	Boston
Status:	Master's student
Bio:	Master's student who recently relocated to Boston from Florida.
	Looking for ways to envision her new apartment without driving to the university.
Goals & Needs:	Need photos of apartment from various angles to setup her desktop environment.
	Want to compare details of various apartments easily
	Needs validations from customer reviews
Frustrations:	The search engine does not sometimes show relevant results
	Hard to envision the overall image of the room
	Multiple steps and slow leading times for an app
	Want to avoid driving to university and stores

Name:	Smith
Location:	Portland
Age:	33
Bio:	Smith lived in Texas since childhood and now is moving to Portland to attend his college
	As Portland is completely new place, he would like apartment to stay till he graduates
Goals & Needs:	Refined search results based on specific user query
	Listing only places that have verified for tenant opening
Frustration:	Rental listings are often disorganized
	Hard to contact flat owners

Name:	Musk
Location:	Cambridge
Age:	35
Work:	Engineer
Bio:	An Engineer living in Cambridge.
	He is currently living in a condo with his spouse for past 2 years and has been very happy living there.
	Place is getting expensive, so he is looking for a place cheaper to save money for their future home.
Goals & Needs:	Be a homeowner
	Save enough money for a down payment of his permanent home
	One day move back to his homeland
Frustrations:	Finding a cheaper apartment
	Not enough selection when searching online
	Location constraints

Name:	Isaac
Age:	23
Status:	Undergraduate student
Location:	Chicago
Bio:	Isaac is pursuing his undergrad degree from Chicago.
	He usually studies at library and does not stay at his apartment often.
Goals & Needs:	Find new apartment at very low budget
	End up in an apartment which is managed by management so quick response to any issues
Frustrations:	Live chat option not available to connect to support team
	Present detailed apartment tour does not exist
	Recommendations of appropriate apartments based on filter option selected does not show correct results

Name:	Evelyn
Age:	55
Status:	Retired housemaker
Location:	Andover
Bio:	Evelyn is a housemaker who does not usually prefer walking.
	She takes her car out for buying grocery and other products.
	She has an emotional support animal named Lili.
Goals & Needs:	Try not to stress for unnecessary things.
	Stay healthy if possible.
	Wants to move to a town with less people and find an apartment at low prices and which has got a garage for parking and the apartment is pet-friendly
Frustrations:	Parking slots unavailability
	More crowded areas
	Pet-friendly apartment not mentioned on website

7. **Use Cases**

Use Case 1 - (Heavy)

Use Case	Finding Nearby Facilities for the selected Apartment.
Actor	User
Subject Area	Apartments.com
Trigger	User desiring to rent a property based on neighborhood.
Precondition 1	Must be on a property webpage.
Precondition 2	Must be connected to the Internet.
Description	When the user navigates through the website, neighborhood option must be there on the home page which help user to find a perfect apartment according to their convenience.
Alternate flow 1	After the customer logs into the website, they should be able to search for the appropriate location they want after that it is difficult for the user to find neighborhood option for the selected property.
Improvements	There must be an information box so that the user will be able to know the available sources of commuting or daily needs.
Alternate flow 2	When the user searches for the exact location of the apartments only the address is mentioned in the description below which confuses the user to remember where the location is.
Improvements	When the address is displayed below the selected apartment it must be hyperlinked and redirected to google maps.

Use Case 2 - (Heavy)

Use Case	Enhanced Filtering Option
Actor	User
Subject Area	Apartments.com
Trigger	Users get confused while applying the filter as there are too many options given in the filter section.
Precondition 1	Must be on a search home webpage.
Precondition 2	Must be connected to the Internet.
Description	When the user navigates through the website's search bar then they should be able to apply filter according to their preferred location and property type so that the unwanted properties are not displayed.
Alternate flow 1	After the user logs in into the website, they should be able to search rental properties on the search bar for the appropriate location.
Improvements	Providing a filter menu in the search bar to locate the suitable properties according to a user's preferred location.
Alternate flow 2	After searching for the location too many filter bars are present which confuses the user which filter to apply.
Improvements	One filter option must contain all types of other filters so that it catches users' attention.

Use Case 3 - (Heavy)

Use Case	Improvised Feedback
Actor	User
Subject Area	Apartments.com
Trigger	Users get confused while renting a property by seeing so many options. So, feedback must be visible for every property.
Precondition 1	Must be on a preferred property webpage.
Precondition 2	Must be connected to the Internet.
Description	When the user looks for a rental property, they come across many options which brings confusion. Providing a rating for every property helps in clarifying the confusion.
Alternate flow 1	After the user searches for a property in any location, they should be able to make the decision firmly on some reliable facts.
Improvements	Providing customers with reviews would help unaccustomed users to take a decision on renting that property.
Alternate flow 2	To provide more authentic reviews to unpracticed users surveys to be held.
Improvements	Authentic reviews can be acquired by getting feedback from currently living peoples in a rental property.

Use Case 4 – (Heavy)

Use Case	Customer Service
Actor	User
Subject Area	Apartments.com
Trigger	While navigating through the website there is no option for direct customer service which confuses the user while seeking customer support
Precondition 1	Must be on a preferred property webpage.
Precondition 2	Must be connected to the Internet.
Description	When the user looks for a rental property, they come across many options which brings confusion. Providing a rating for every property helps in clarifying the confusion.
Alternate flow 1	When the user looks for a rental property, they come across many options which brings confusion. Providing a rating for every property helps in clarifying the confusion.
Improvements	Providing customers with reviews would help unaccustomed users to take a decision on renting that property.
Alternate flow 2	To provide more authentic reviews to unpracticed users surveys to be held.
Improvements	Authentic reviews can be acquired by getting feedback from currently living peoples in a rental property.

Use Case 5: (Medium)

Use Case	Alert user if property is sold.
Actor	User
Basic Flow	To get assurance of a property whether sold or available, the property description should clearly mention, respectively.
Alternate Flow 1	There are situations where the property still is available to customers to buy it for rent when it is already sold, which creates chaos amongst customers.
Improvement	Alerts should be sent to users if the property they are looking after to buy for rent has already been sold to another user.
Alternate Flow 2	If a user is not notified about the status of property, the user is enquiring about then they must be able to connect customer service team for further assistance.

Use Case 6: (Medium)

Use Case	Sign up process
Actor	User & Agent
Basic Flow	Users must sign up or create a new account with their email-id or phone number to start scheduling tours for a rental property or buy it on rent. Similarly, Agents must create accounts with their email-id or phone number by providing authentic permit from government.
Improvement	Users must be able to sign up with their already existing Google or Facebook or Apple accounts enabling an ease in the complete sign-up process. Agents must be able to login to their accounts to confirm a tour requested by the user.

Use Case 7: (Medium)

Use Case	Property Dealer Agent Identification
Actor	User
Basic Flow	To get assistance with a property, the user can contact an Agent.
Alternate Flow 1	Many times, users find that the Agent profile is Spurious after trying to reach out to them via their provided contact information.
Improvement	Agents should be hired only if they have a permit license, so the users do not get in trouble while searching for rental properties. For, this Agent's profile details such as contact information must be visible to the users on the website.
Alternate Flow 2	If a user is unable to seek assistance from the Agent, the user should be able to email or call the respective email and phone-number provided to connect with the Agent to get assistance and must be able to schedule a tour.

Use Case 8: (Medium)

Use Case	Improvising Budget for rent option.
Actor	User
Basic Flow	Users when searching for rental property can see all kinds of properties ranging from highest to lowest.
Improvement	Users must be able to see those rental properties which fit in their budget. Thus, budget adjustment should be enabled to search for a property in specified range.

Use Case 9: (Medium)

Use Case	Information about board members of the website
Actor	User
Basic Flow	Most of the time, especially on apartment rental sites, there is no information mentioned about the board members of the company or who is maintaining the website which is necessary information for the users.
Alternate Flow 1	After navigating through the website, a section for board members must be displayed so the user gets to know who is maintaining the website.
Improvement	A section displaying the board members must be given which is easily visible for the user
Alternate Flow 2	After navigating through the menu bar an option for "About us" or "Know more about us" is not mentioned which makes it difficult for the user to get detailed information about the website.

Use Case 10: (Medium)

Use Case	Estimated cost for utilities.
Actor	User
Basic Flow	Estimated cost for the utilities is not displayed after viewing property details.
Alternate Flow 1	After entering the location suggestions for apartments are displayed but the information given in the suggestions confuses the user regarding planning for his monthly budget as the details mentioned are extra and only gives the basic idea of the property.
Improvement	After visiting the apartment details a description box regarding approximate budget for utilities such as parking and laundry facilities must be mentioned.
Alternate Flow 2	After selecting the apartment, some prices of utilities (Laundry, Parking, Hot water, heating) are displayed combined. Customer cannot understand the pricing of each utility, making him confused to deal the apartment.

Use Case 11: (Light)

Use Case	3-D Walkthrough of the property
Actor	User
Basic Flow	When the user selects a property to view, only images of the property are present.
Improvement	Along with the images an option for 3-D walkthrough must be given which will be helpful for the user to see the structure of the property.

Use Case 12: (Light)

Use Case	Details of the Landlord or owner of the property.
Actor	User
Basic Flow	After viewing a particular property there is an option of "schedule tour" but there are no details of the owner mentioned which confuses the user whether to trust the property or not as it can be fake.
Improvement	Detailed information about the property owner must be mentioned besides the" schedule tour" option.

8. **Requirements using the Moscow Approach**
   (Must have, should have, could have, Won't have)

Must Have
- Once the user is registered on the website, privacy policies must be implemented.
- The user must be able to view the property ratings and its reviews mentioned by other users to get an idea of the property.
- Apart from the website, the agent must be active on different platforms to have a smooth conversation.
- Once the apartment is selected, the user must be able to view the agent's profile and information.
- The user must be able to search quickly for the apartments based on the filters applied.
- A user-convenience option must be implemented.
- The sold apartment feature must be designed so that the new user should have a prior idea about it and not waste time on it.

Should Have
- The chatbot function should be implemented to have a live chat at any moment of time in case of any queries.
- An email should be sent to the registered email address about the listings according to the user requirements

Could Have
- The dark mode feature could be implemented for user's safety in case the user is looking for apartments at night.

Won't Have
- There won't be multiple languages supported for the website.
- The user can't search for apartments with an image relevant to the existing apartments on the website.