Prototype Project 4: Balsamiq Interactive Prototype

Introduction

In this project, I designed a mobile application for an apartment rental company, where users can search for apartments near them, viewing different places to rent to find one to their liking. Features included in this Balsamiq prototype are:

- Map Search: Users can search for apartments, requiring them to enter different fields to bring up a map view of apartments near them, as well as a list view.
- Apartment detail/3D walkthrough: Users can view the apartment details and enter a 3D space for a virtual tour.
- Report Issues/Maintenance: Users can report any issues they find within the apartment and any maintenance needed by uploading pictures.

https://www.apartments.com/charlotte-nc/?bb=y7qvw88k1Hh1gsxl

Task Sections

Task 1: Map Search For Apartments

Task Introduction: This task enables users to search for apartments, directing them to a map view of nearby listings and providing an option to switch to a list view. Features will include a search function that asks users to enter basic criteria such as city, price range, number of bedrooms, and whether pets are allowed. This task will also provide a map and a toggle for the list view.
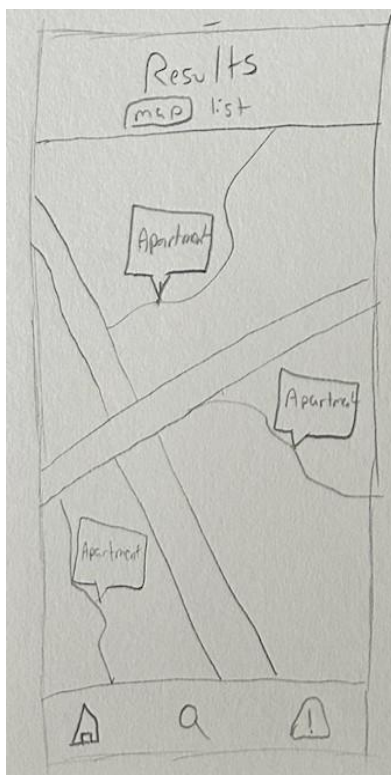
Wireframe Sketches:
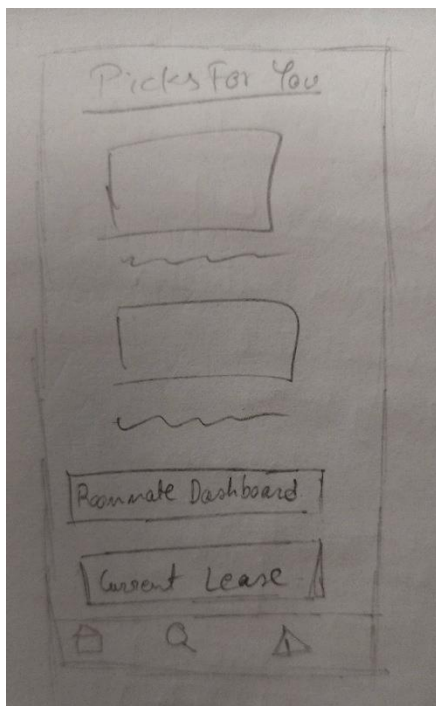
Home Screen, where the user is taken when entering the application
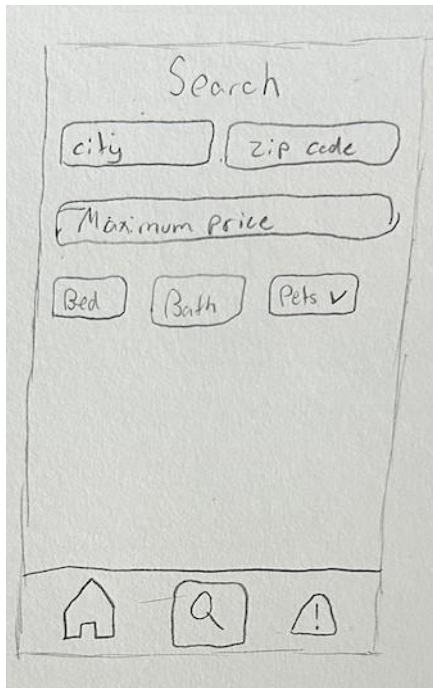
Once the user taps the search icon on the navigation bar, they are taken to a screen prompting them to enter information to match their requirements.
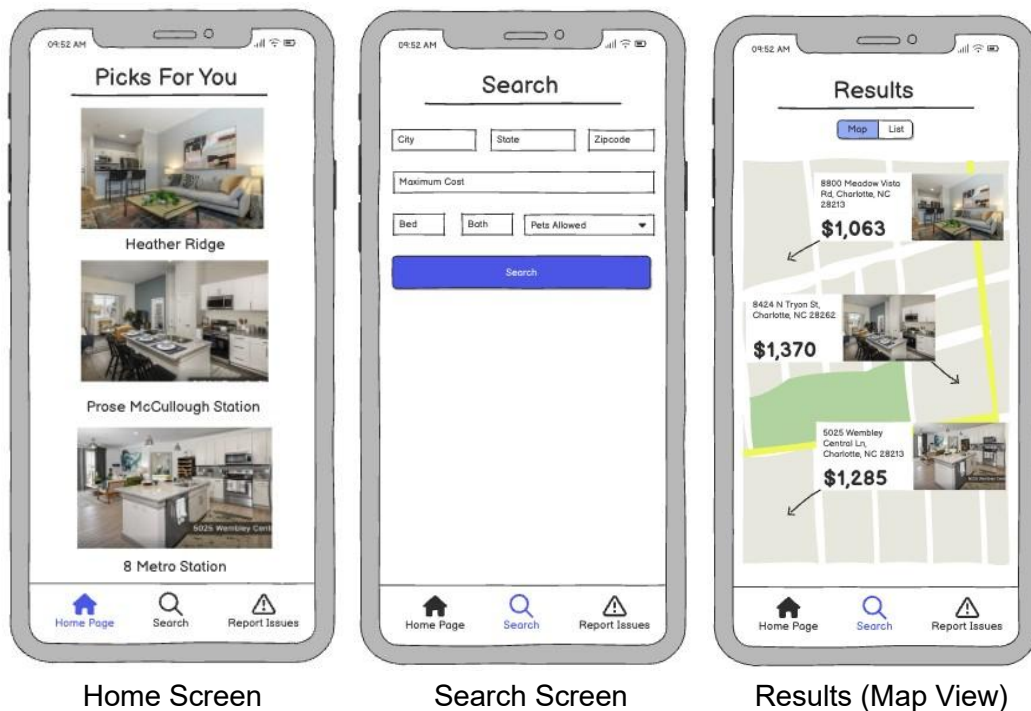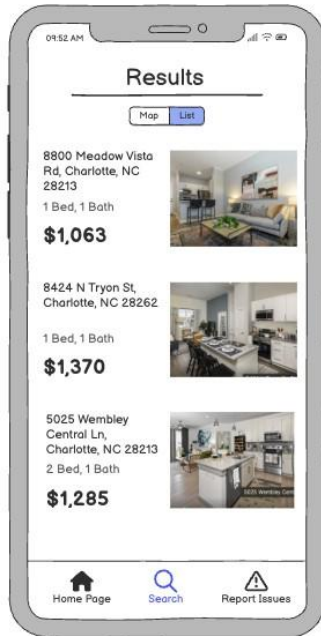
The user is then given multiple options based on their inserted fields. The user can use a map view to look through apartments near them or view a list. In this screen, the user is on the map view.
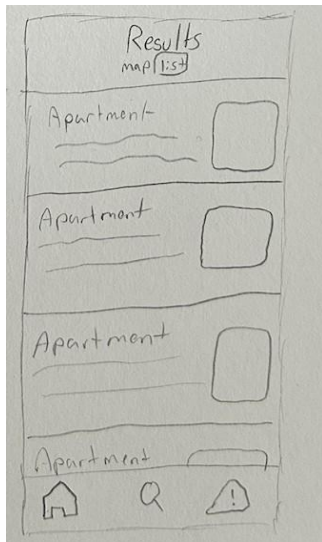
The user can also view a list of apartments near them by toggling the buttons at the top.

Balsamiq Prototype:

Home Screen   Search Screen   Results (Map View)

Results (List View)

Interactive Elements:
- Input Fields: Used to input the city, maximum price, bedrooms, etc.
- Toggle Button: Toggles between map and list view.
- Dropdown: Used in the search screen, indicating if the user wants pets allowed.

Design Patterns:
- Search Form: Users can enter a specific value to narrow down the content. The apartment search feature utilizes this to allow users to find apartments based on their specific needs.
- Two-Panel Sector: In the results screen, the user can toggle between a map view and a list view in order to enhance exploration, giving users more options and freedom during their search.
- Responsive Disclosure: Only showing map or list view depending on the user's choice reduces visual clutter and supports a clean interface.

Task 2: Apartment Details / 3D Walkthrough

Task Introduction: For this task, users will be able to look at the details of the apartment they have selected. This will include text describing the apartment, images of the apartment, and a virtual tour that takes the user throughout the apartment. The user will be able to navigate to this from the home screen or the search function.

Wireframe Sketches:
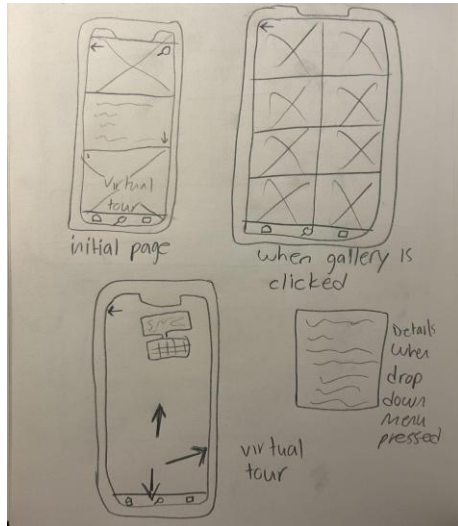
Top left: This sketch shows the initial page when an apartment is clicked. All the basic details as well as an image of the apartment is shown. There are also buttons to access more info through a drop down arrow and the virtual tour feature.

Top right: This sketch shows the image gallery that the user can see when they click on the image on the initial page
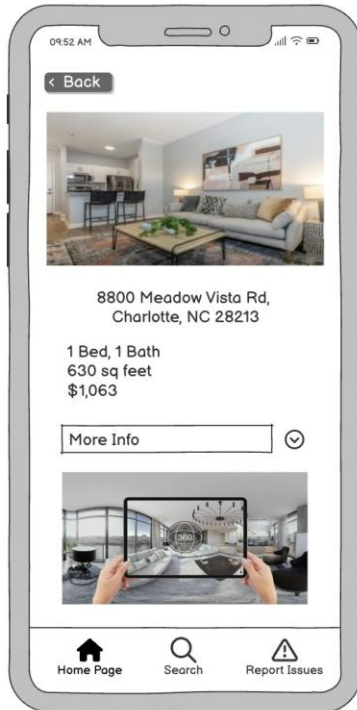
Bottom left: This sketch shows what the virtual tour will look like. There are arrows for the user to navigate through the home

Bottom right: This sketch shows what the text box will look like when the user clicks on the drop down arrow

Balsamiq Prototype:

Home screen that the user sees when they open the application

When the user clicks on an apartment, a details page opens up with a clickable image of the apartment, details under the image, and the button to access the virtual tour. The user can click on the back button to go back home. The user can also click on the drop-down arrow to see more details on the apartment.
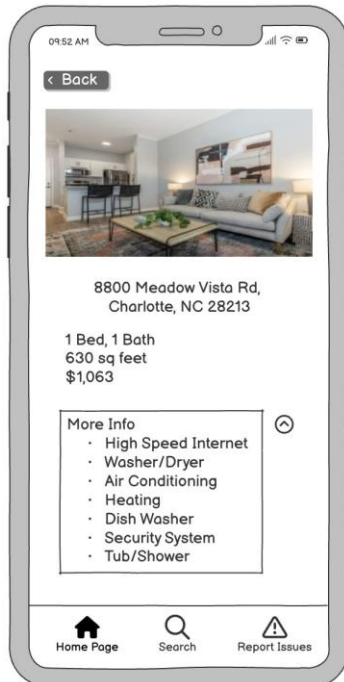
Here, the user has clicked on the drop down arrow to see more details about the apartment. The user can then click on the arrow again to see less details or click on the image at the top to see the image gallery.
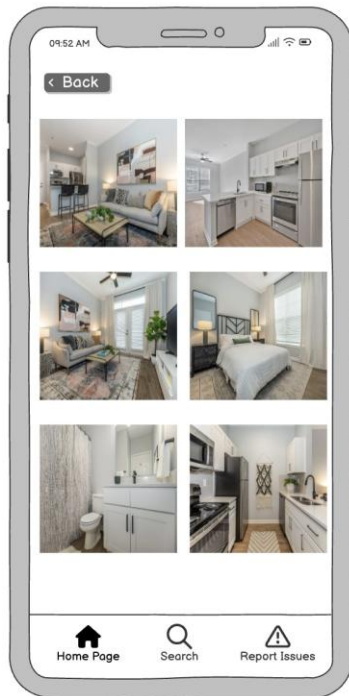
Here, the user has clicked on the image at the top of the initial page to open up the image gallery. From here, the user can look through all the images and when they are done, they can click back to go back to the first page.
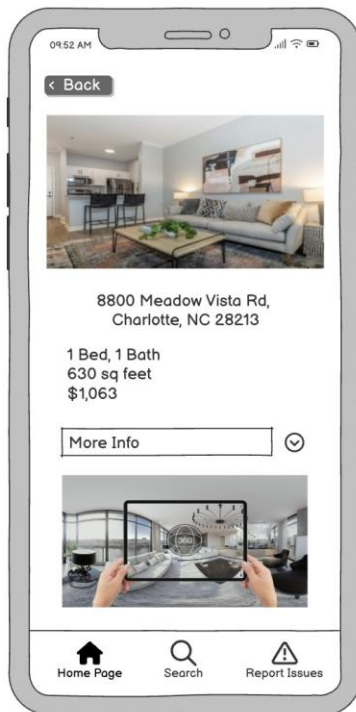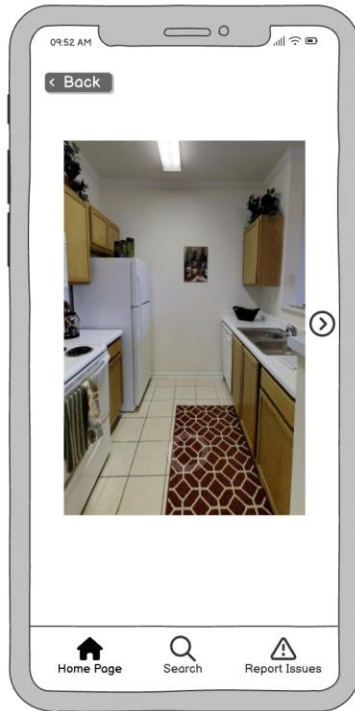
Here, the user has clicked on the virtual tour button and they are shown a screen with an image in the center and a clickable arrow button to pivot the pov.
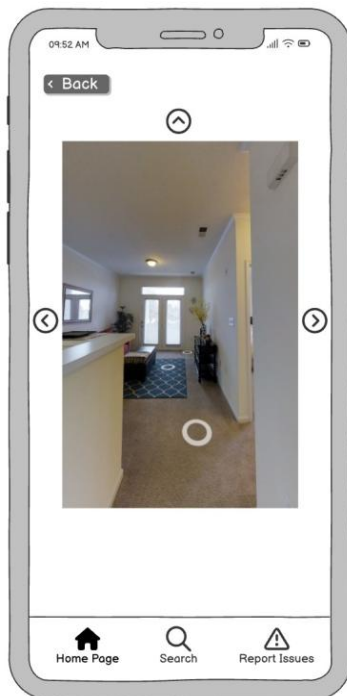
The user clicked on the right arrow button from the previous pov and now has more options to see the apartment.
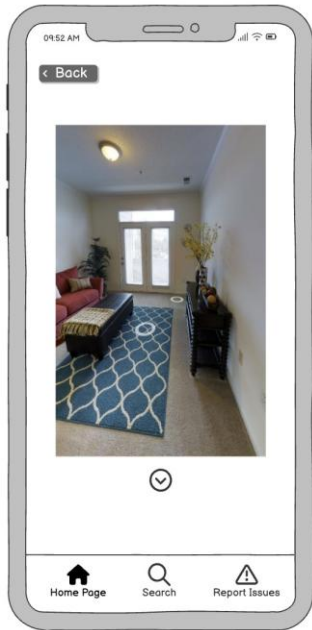
The user clicked the forward arrow and can now see the living room. From here the user can go back and see other parts of the apartment.
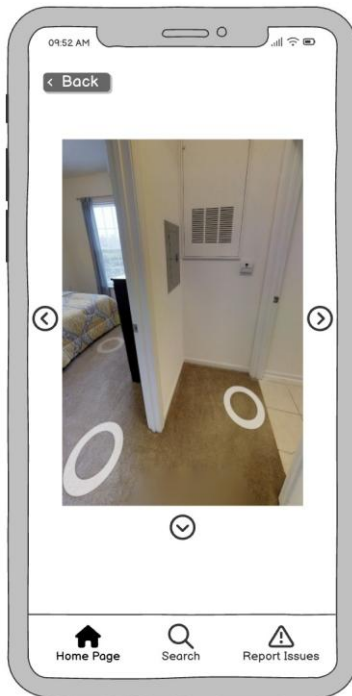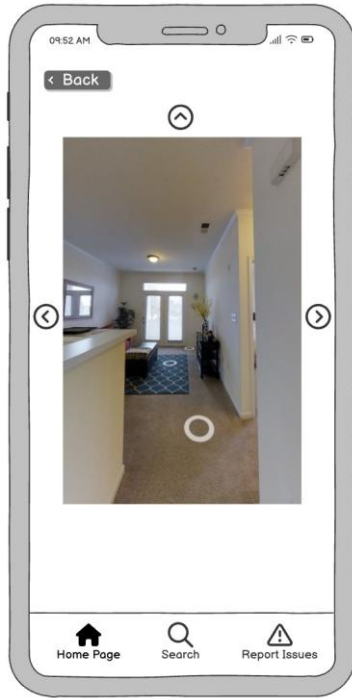
The user has clicked on the right arrow and can now see the hallway with the bedroom on the left and the bathroom on the right. First the user will click on the left.
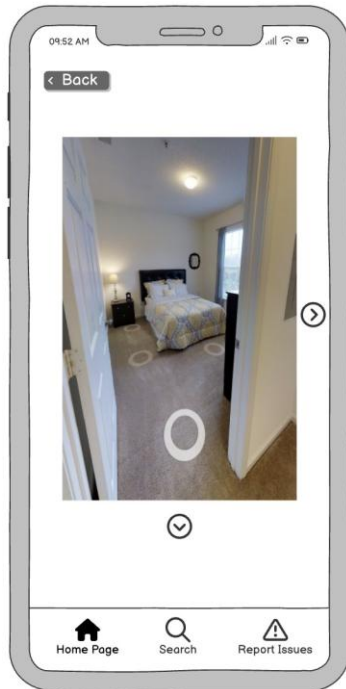
From this screen, the user can see the bedroom. The user can then choose the right arrow to directly pivot the pov to the bathroom or click the back arrow to go back to the hallway.
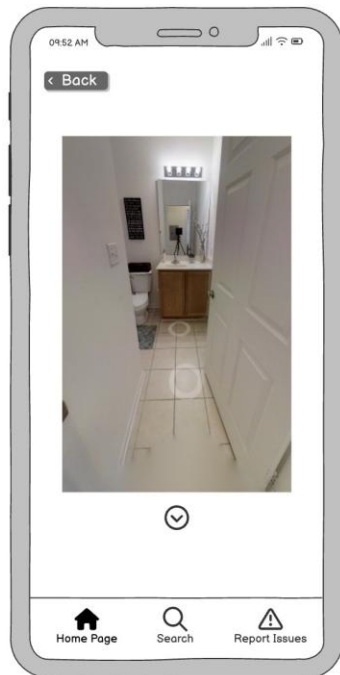
From this screen, the user can see the bathroom. The user can then choose to go back by clicking the back arrow. The user is free to go around the apartment as much as they please. Once they are done, they can click on the back button at the top left to go back to the initial screen.

Interactive Elements:

- Drop-Down Menu: The user can click on a drop-down arrow in the apartment details page. The purpose of this is to keep the UI condensed. Given that this runs on a mobile device, space is limited, so giving the user the option to see more or less details prevents clutter.
- Buttons: The user can use clickable buttons throughout the application to navigate through the different apartments as well as the features of the application.
- Updating Center-Stage: This occurs whenever the user clicks on an apartment listing, on the apartment image, or when the user clicks on the virtual tour button. All of these actions require changing the center stage. These center-stage changes show the user the obvious next step and make sure they understand the result of their action.

Design Patterns:
- Thumbnail Grid: The application uses thumbnail grids for showing the image galleries of the apartments. When the user clicks on the image in the apartment details page, a gallery in the form of a grid is shown with all the images.
- One-Window Drilldown: The user can see a list of apartments from the home page with an image to go along with them. When the user clicks on an apartment, the page is replaced with the apartment details and more information that the user may want about the selected apartment.
- Escape Hatch: Throughout the application, back buttons are clearly given to allow the user to retrace their steps and "escape" whichever screen they are currently on.

Task 3: Report Issues / Maintenance

Task Introduction: This task enables the user to raise any issues in the apartment. This might be related to maintenance such as electricity, water, wifi, and other facilities. The user even has an option to upload photos to their issues.

Wireframe Sketches:
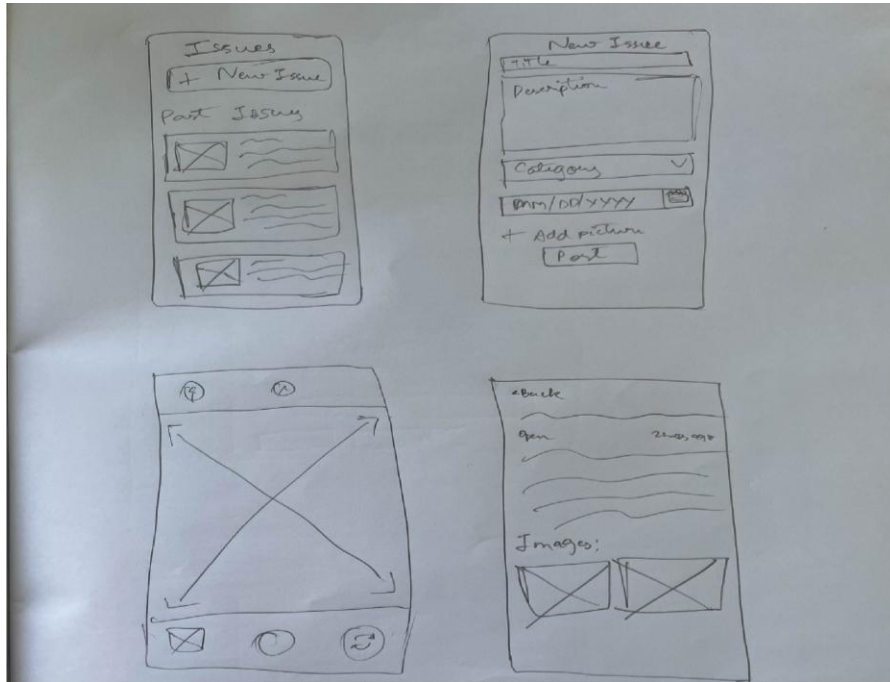
Starting from top left, the first wireframe shows the issues page where users can report a new issue or see their past issues. Clicking on any of the past issues takes the user to the detailed issue page, which is at the bottom right corner.

If the user decides to raise a new issue, then the user has to click on the new issue button. On clicking this, it takes the user to the new issue page (top right corner). Here, the user has to enter certain information like issue title, description, select category, date, and time of when the issue occurred, and even add images.

When the user clicks on the add picture button, it takes them to their camera from where they can click and add the picture to their issue. Once all is done, the user has to click on the post to raise the issue.

Balsamiq Prototype:

Issues

+ Report a New Issue

Past Issues

Wifi Issue
Open
My wifi is down since 2022 and it's been 3 years since it worked. Lmao...

Wifi Issue
Open
My wifi is down since 2022 and it's been 3 years since it worked. Lmao...

Wifi Issue
Open
My wifi is down since 2022 and it's been 3 years since it worked. Lmao...

Wifi Issue
Closed
My wifi is down since 2022 and it's been 3 years since it worked. Lmao...

Home Page   Search   Report Issues

New Issue

Issue Title

Issue Description

Select Category
General
Kitchen
Wifi
Electricity
Water

MM/DD/YYYY

+ Upload a Picture

Post

Home Page   Search   Report Issues

New Issue

Pet fish chewed my wifi wire

My pet fish chewed on my wifi wire and it aint working now lol. Pls send help asap

Wifi
General
Kitchen
Wifi
Electricity
Water

04/15/2025

+ Upload a Picture

Post

Home Page   Search   Report Issues

Center check between the guides

Interactive Elements:
Text Inputs: Users can use the text inputs to enter details such as title, description, and more while raising a new issue.
Drop-down Select: Users can choose the category of the issue from a drop-down list. Once clicked, the user gets to choose the category by clicking on the drop-down list items.
Date Picker: There's also a date picker element present in the form, using which users can select the date when the issue occurred.
Image Selector: The user can click images and add them to the issue that they're raising using the image selector component.
Buttons: There are buttons across these features for various actions like posting issues, going back, selecting an issue, and so on.

Design Patterns:
Streams and Feeds: Content is displayed as a feed. Here, content refers to the issues raised by users. The issues are represented as cards that display relevant information and data.
Dashboard: The issue page is displayed like a dashboard, where users can either create an issue or have a section to view issues raised by them in the past. This serves like a dashboard.
Tags: Issues are tagged based on their status. They are either active or inactive. Each tag is presented in a different font color based on the status.

Task 4: Roommate Dashboard

Task Introduction: This task enables the user to raise any issues in the apartment. This might be related to maintenance such as electricity, water, wifi, and other facilities. The user even has an option to upload photos to their issues.
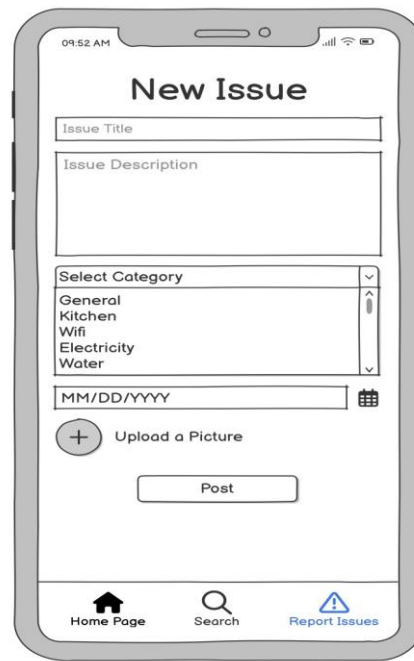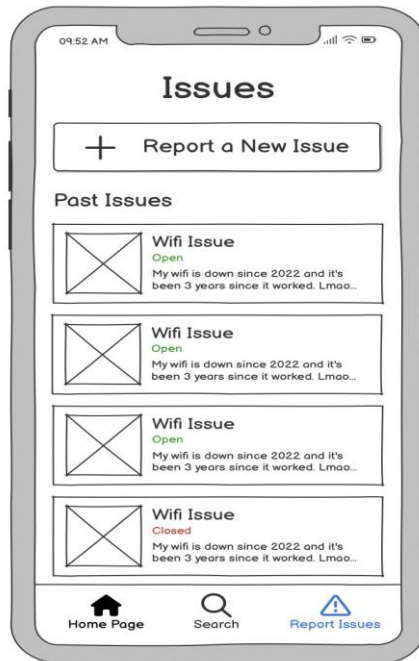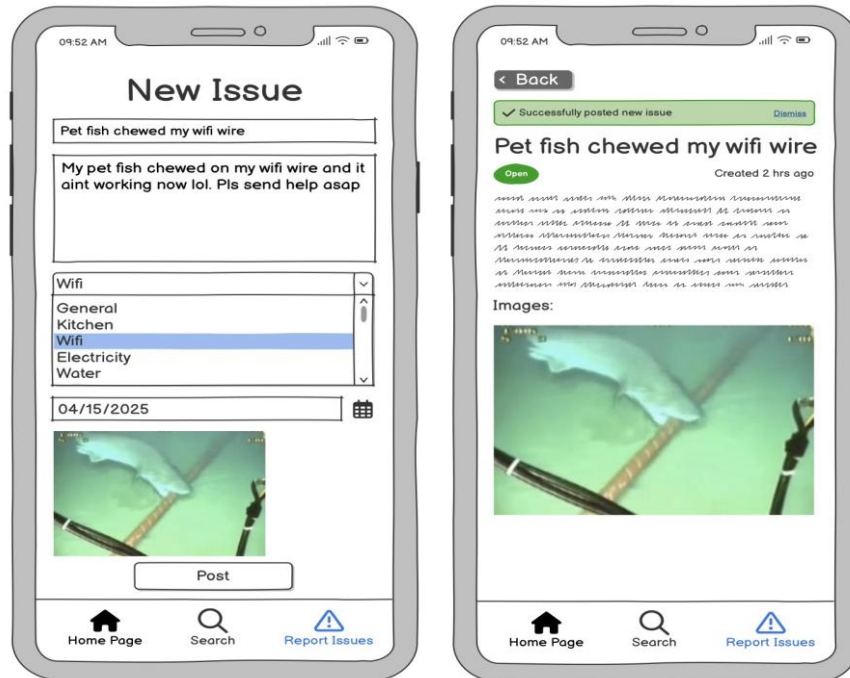
Wireframe Sketches:
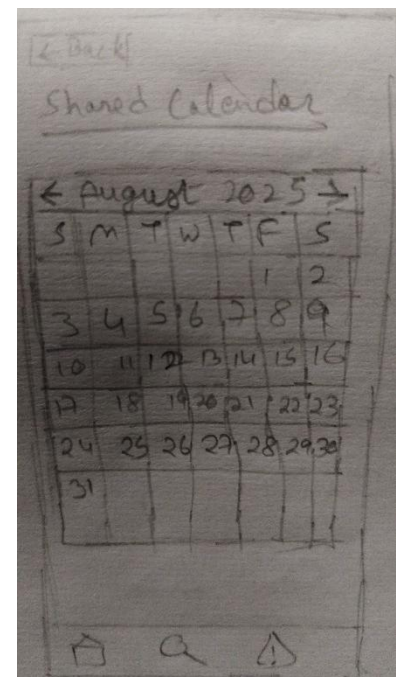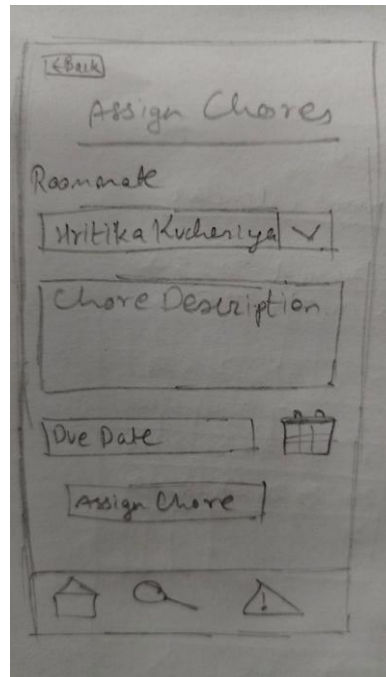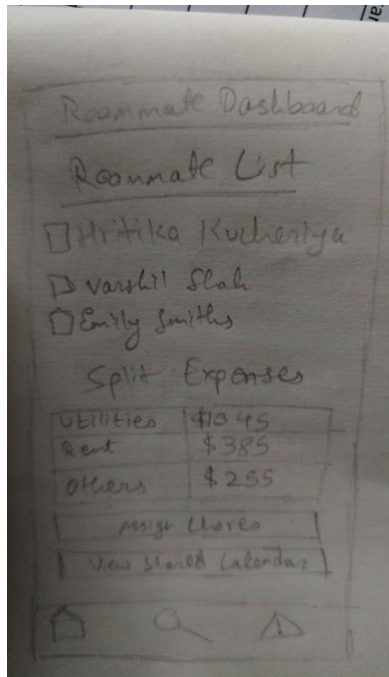
1. Roommate Dashboard
• Displays the list of roommates with checkboxes for selection
• Shows a breakdown of shared monthly expenses (Utilities, Rent, Others)
• Includes buttons to assign a chore or view the shared calendar

2. Assign Chores
• User selects a roommate from a dropdown
• Enters chore description in a text box
• Sets the due date using a date picker
• Submits the assignment with a button

3. Shared Calendar
• A scrollable monthly calendar view
• Displays chores assigned to each roommate on specific dates
• Each task includes roommate name and activity.

Balsamiq Prototype:
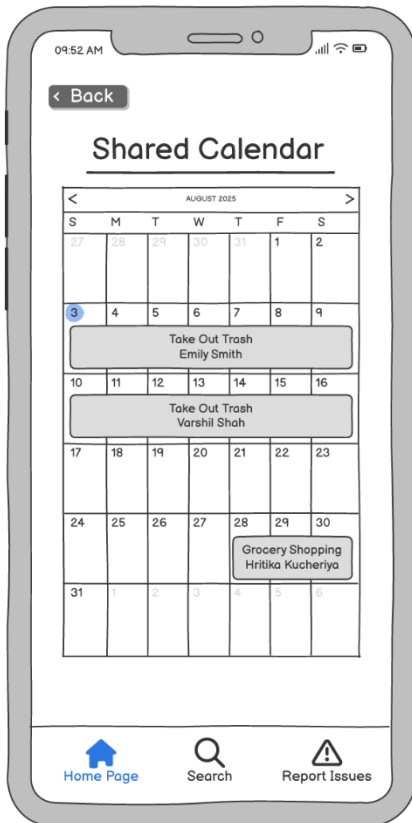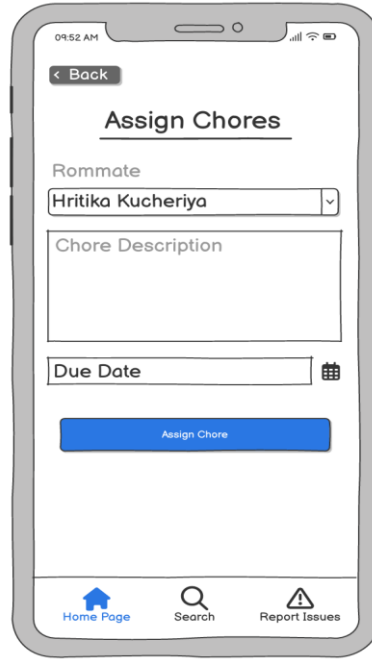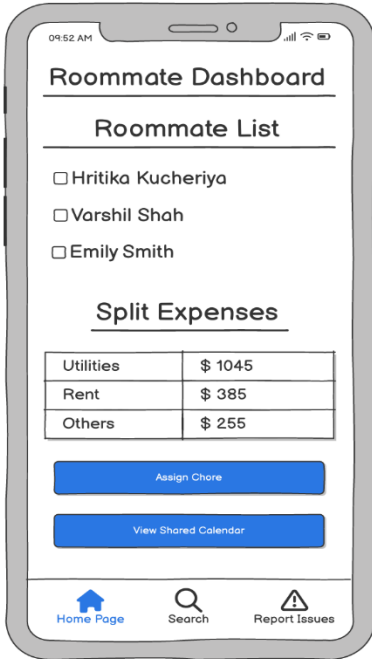
Roommate Dashboard

Roommate List

☐ Hritika Kucheriya

☐ Varshil Shah

☐ Emily Smith

Split Expenses

Utilities	$ 1045
Rent	$ 385
Others	$ 255

Assign Chore

View Shared Calendar

Home Page   Search   Report Issues

< Back

Assign Chores

Rommate

Hritika Kucheriya ⌄

Chore Description

Due Date   📅

Assign Chore

Home Page   Search   Report Issues

< Back

Shared Calendar

AUGUST 2025

S	M	T	W	T	F	S
27	28	29	30	31	1	2
3	4	5	6	7	8	9

Take Out Trash
Emily Smith

10	11	12	13	14	15	16

Take Out Trash
Varshil Shah

17	18	19	20	21	22	23
24	25	26	27	28	29	30

Grocery Shopping
Hritika Kucheriya

31	1	2	3	4	5	6

Home Page   Search   Report Issues

Interactive Elements:
Text Inputs: Users can use the text inputs to enter details such as title, description, and more while raising a new issue.
Drop-down Select: Users can choose the category of the issue from a drop-down list. Once clicked, the user gets to choose the category by clicking on the drop-down list items.
Date Picker: There's also a date picker element present in the form, using which users can select the date when the issue occurred.
Buttons: There are buttons across these features for various actions like posting issues, going back, selecting an issue, and so on.

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Tags: Issues are tagged based on their status. They are either active or inactive. Each tag is presented in a different font color based on the status.

User Study
Task Prompts:
- Task 1: Go to the search screen, enter the desired fields and press "search", tap the nearest result, go back, and change the view to list mode.
- Task 2: Click on an apartment from the home page. Look at the pictures of the apartment and look at the details about the apartment. When you are done, go through a virtual tour and when you are done, go back to the home homepage.
- Task 3: Click on the Report issue button in the bottom navbar. Then create a new issue. Once you are done with it, go back to the issues page and then open any one issue from that list.
- Task 4: Go to the Roommate Dashboard. Assign a chore to a selected roommate and check the calendar to confirm the assignment appears.

Common Points Feedback:
- Easy and simple to use.
- The maps feature was neat and not complicated to use.
- The list feature was simple
- Users wished the list feature would let them know if pets were allowed in the apartment.
- Users wished they could star any apartments that looked interesting to them.
- Searching for an apartment overall was an easy and simple process.
- The apartment viewing screen was easy and had all the details needed when searching for a new apartment.
- Users liked the ability to have a virtual tour of the apartment.
- Users thought the reporting feature was great.
- User liked the layout of the home screen and felt that it was intuitive

- In the apartment details page, the user felt that it was not very obvious that when you click on the image at the top, a gallery would open up
- Although they did not get it immediately, they were able to find the image gallery on their own
- The user liked they they could see more or less detailed information about the apartment
- User wished they could scroll down and still see the virtual tour button when they had more details showing
- The user thought that the virtual tour feature was very smooth and thought out well
- User did however, wish that there were more images to see the apartment in the virtual tour
- User said that the process to raise a new issue was easy and simple
- Felt that there could have been slight improvements
- User wasn't sure about the date, as in user didn't knew what it was exactly (whether to add today's date or the date the issue occurred)
- User wasn't sure on how to make the issue as closed
- Users liked the clarity of the roommate list and financial summary
- Shared calendar was appreciated; however, one participant suggested color-coding tasks
- One participant requested the ability to add recurring tasks or chore reminders

Summary: Participants found the app easy to navigate, with the map feature and list view being particularly praised for their simplicity. Searching for apartments was straightforward, and users appreciated having detailed information available in the apartment viewing section. The virtual tour feature received positive feedback for being smooth and well-executed, though some users wished for more images in the tour. Several users highlighted that the apartment details page could benefit from clearer indicators that clicking on the image would open an image gallery, though they were able to discover it on their own. Users also expressed a desire for the ability to mark or "star" apartments of interest, and they wished the list view would indicate if pets were allowed. When it came to reporting issues, the process was deemed easy, but participants were uncertain about how to set a date for the issue or mark it as "closed." Despite this, the reporting feature itself was appreciated for its simplicity. Participants were generally satisfied with the app's layout, intuitiveness, and functionality. The search, apartment viewing, and issue reporting features were simple to use and met their needs, although small improvements in clarity and additional features could enhance the overall user experience.

Task Coordination

I sketched the wireframes for each task based on a common homescreen sketch that I followed, created during the previous breakout room session. Then, transformed the wireframe sketches into a prototype with Balsamiq, coming together to implement the linking and functionality. Throughout the tasks, I used the same elements to maintain the structure, such as the navigation bar and other visual components.

Content Fidelity Matrix

Content Type	Very Low Fidelity	Low Fidelity	Medium Fidelity	High Fidelity	Very High Fidelity
Information Design			X		
Interaction Design		X			
Visual Design & Branding				X	
Editorial Content				X	

Inspiration Discussion

The primary inspirations came from Google Maps and Zillow. Google Maps provided the baseline for the map interaction model, specifically for location-based apartment browsing, interactive pins, and smooth navigation. Zillow influenced the layout for apartment cards, focused image listings, and 3D apartment views. These applications help guide the prototype and interactive flows to create my apartment search application.
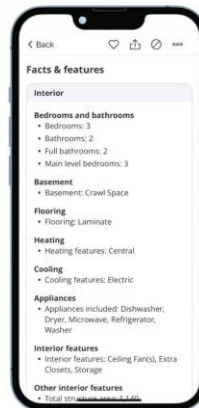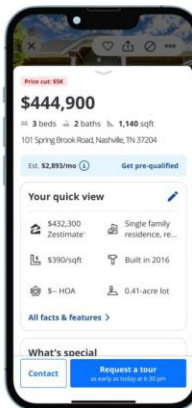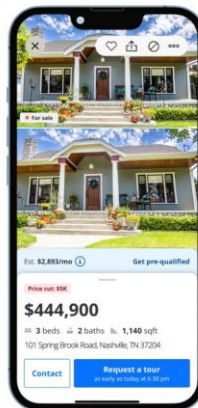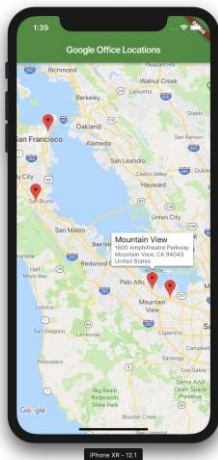
Self-Critique/Project Reflection

Task 1 Critique -
- The design is very clean and intuitive. The search inputs are clear and the map is very self explanatory. Overall, the design conveys the next step in finding an apartment well.
- Improvements Needed: I think the map itself could look a little bit cleaner by making the images and the listing themselves smaller. In the current design, they take up a lot of space and make it difficult to see the map in the background which the user might want to see.
- The design is simple and straightforward. It's easy to use and navigate across the pages and does the job of finding apartments using the map.
- Improvements Needed: Adding few details in the home screen suggestions like price range, how far is it from the user's current location and so on would make it better so that more content would be visible.
- Overall, I am proud of how the final design turned out for my task. The search functionality works well, and the toggle switch between map view and the list view worked flawlessly. Some things I could change are making the points on the map a bit smaller, since it may be difficult for the user to see the map.

Task 2 Critique -
- The design is consistent and follows the theme very well. The user experience is great in this project phase, and the 3D room tour works well.
- Improvements Needed: Add a title to each apartment info screen and center the info similarly to how the address is.
- The feature works well with all the guide marks, such as arrows to navigate across the 3D model.
- Improvements Needed: Reducing the whitespace in the 3D room tour would be better as there's a lot of whitespace currently -   Ricardo (Self-Critique)
- The 3D room tour feature turned out as expected and I'm happy with the outcome. There could have been some improvements like mentioning which room the user is in currently while navigating the house and reducing whitespace across the layout.

Task 3 Critique -
- Layout is clean, and uploading a maintenance issue is a very simple process with the use of the text inputs and dropdown menus.
- Improvements Needed: Needs an easier way to change or toggle the status of a report.
- The overall layout of the design was done well. It is simple and intuitive. There is a lot of detail that makes it feel very high fidelity and resembles the user experience well. I think the use of text and image inputs were done well.

- Improvements Needed: The design is done very well so the main place for improvement would be to add images to the past issues page. I assume that the image the user uploaded would go there but without an actual image there, it is hard to tell.
- Overall I'm happy with the prototype and usage of several components across the pages. There can be more improvements like adding updates to the issues or adding multiple images.

Task 4 Critique -
- I'm satisfied with how the Roommate Dashboard feature turned out, especially in terms of layout clarity and ease of navigation. The checklist for roommates and the structured breakdown of rent, utilities, and other shared expenses make the screen easy to scan and understand. The call-to-action buttons ("Assign Chore" and "View Shared Calendar") are clearly distinguished and well-placed for thumb access on mobile.
- One of the strengths of this design is that it keeps all critical information— roommate list, expenses, and chore tools—on a single screen, which reduces friction and prevents unnecessary screen transitions. Additionally, the consistent navigation bar across all screens helps reinforce a unified app experience.
- While the checkboxes are functional, they currently don't have a clear purpose since there's no direct action tied to selecting roommates on this screen. This might confuse users unless those checkboxes are connected to a bulk action in the future.
- While the checkboxes are functional, they currently don't have a clear purpose since there's no direct action tied to selecting roommates on this screen. This might confuse users unless those checkboxes are connected to a bulk action in the future.
- Overall, the Roommate Dashboard is intuitive, mobile-friendly, and aligned with the overall design, but small refinements in interactivity and layout could elevate the user experience further.