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Dr. Stewart

CS 447

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Group Assignment 4

Project Topic: Our project focuses on the challenges of moving to a new place and having limited resources to meet people and become familiar with an area. We want to provide our user group access to information about their new home and resources to find roommates, friends, restaurants and activities to allow them to settle into their new home as quickly as possible.

Team Member Contributions

1. **Hailey** - Created the roommate flow including the design description, Figma Prototype and video animation as well as contributed to the design rationale and prototyping decisions for the overall prototype.
2. **Katherine** - Profile task in the design description and design rationale. Created profile figma prototype
3. **Matt L** - About the area task in the design description and design rationale. Pieced together and animated video. Created about the area figma prototype
4. **Matt M** -Join a recreational sports league in task in the design description and design rationale. Created a prototype in figma to represent the task of joining a baseball league. Recorded this section of the video.

Video link:

https://drive.google.com/file/d/1ld1092Ukh1D_lgzN9b-Ap4U62uq1l6mB/view?usp=sharing

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I. **Link to Figma Project:**

https://www.figma.com/file/mRr4lnw0dkE1pm16LlMlW8/CS-447---G4-Prototype?node-id=0%3A1

II. **Design Description** *(can be copy and pasted from I4 if using the same design decisions / principles)*

A. ***Find a Roommate*** - When on the homepage of the application, there are 4 buttons to allow users to navigate to each subsection. To find a roommate, the user can select the first button labeled 'Roommate' to be redirected to a new screen. One of our main priorities for this application was to keep it simple and organized to avoid overwhelming the user with unnecessary options. Once the new screen loads, the user will be able to see several different filtering options that will help them interact with the application and narrow down their potential matches. In reality, the user will be able to type into the search box any zip code, move the sliders and check the boxes to apply any combination of filters. For the purpose of the prototype, I implemented interactivity by clicking on either the icon in the search bar, labels of the sliders or the boxes of the checkboxes. Each filter can only be applied mutually exclusively to maintain simplicity. Although this offers limited functionality, it allows the user to understand the basis of how the fully implemented application will work. If the user were to select 'Clean' as the filter to be applied, they would be redirected to a new page showing two roommate options that have designated themselves as clean. From here, the user can either

navigate back to the original filtering page to apply a new filter and see new results or select one of the options from below to see their full profile. The full profile contains a picture, their name, hometown, college, and facts about their personality and habits. If the application were fully functional, the user would be able to navigate from a full profile back to the potential roommate list and navigate to other profiles that met the same criteria. Some of the profiles aren't fully developed yet either which results in an 'Under Construction' screen appearing. The two users that are developed are Kevin and Maya. From their full profiles, the user can decide whether to message them by clicking the 'Message' button at the bottom of the screen or navigate back to look at other options. The messaging screen is very similar to a typical messaging layout with the name at the top, the conversation back and forth in the center and a keyboard located in the lower half of the screen.

B. **Learn about the Area**- When on the homepage of the application, there are 4 buttons to allow users to navigate to each subsection. To learn about the area, the user can select the 'about the area' button to be redirected to a new screen where they can search for the area they want to learn about. Once they search for an area they are presented with local businesses in the area such as grocery shops and barber shops with a star rating under them, as well as a map at the bottom of the page. When the user clicks on any business they are presented with a picture of the business, a description of the business, and reviews the user can leave. They can navigate back to the previous screen with the back arrow or click the leave a review button. On the review screen they can type a review and leave a star rating

then either cancel or save the review, either way they will be taken back to the search result screen. If the user clicks the map they will be taken to a street view where they can either click the back arrow to go back to the results screen or click the other arrow to see the other side of the street view.

C. **Join a recreational sports league** - When Mark first opens the app, there is a main menu screen with four main categories to choose from. These categories are roommates, about the area, businesses and organizations, and social. Mark would click on the businesses and organizations tab to get more information about sports leagues. The next page displays six sub categories of businesses and organizations. These include events, restaurants, organizations, sports, activities, and services. Mark then taps on the sports button. These buttons are stacked vertically and centered on the page. After clicking sports, Mark is redirected to a page specifically about sports. He clicks the drop down menu, which displays a list of sports, and clicks baseball. This drop down then collapses and his choice of baseball is displayed on the screen. He then can select between competitive or casual leagues by checking the appropriate field. Next, he checks the type of league he wants to join by checking the coed or same-gendered box. He then presses the search button.

After clicking the search button, users are given different options for baseball leagues sorted by proximity to their apartment or house. Users can swipe to scroll down through all of the options. Mark then would click the info button which would display more information pertaining to that actual league. After Mark reads the description of the league and decides he wants to join he clicks the

send a message button to send a message to the league's commissioner. Clicking this button redirects Mark to a messenger where he can message Steve the commissioner about joining the league.

D. **Create a new profile** - It starts with a homescreen where you can click to view your profile or create one if you haven't made one yet. Once that is clicked, the user is taken through the three stages of creating a profile on separate pages. The first page asks the user to enter their name, age, and location, all of which are required information to create a profile. The next page asks for a short bio, interests, and organizations. These are on a different page since they are not required information for creating a profile. The third step allows the user to select a photo to associate with their profile. Once all of these steps have been gone through, the user is able to see what their profile would like to somebody who clicked on it and they can either cancel, further edit, or confirm their profile. If the user clicks the 'Cancel' button at any point, they are taken back to the screen first presented saying that the user has no profile that offers them the option to create one. If the 'Edit' button is clicked at the end, they are taken back to the 'Select Photo' page since it is the last page choice they made but they can easily navigate back further using the back button but ideally, each previous design decision will have been saved and left unchanged if no edits are made to a given section.

III. Design Rationale

As a team, we each made several changes to our designs from the paper prototype that is shown in our current digital prototype. In terms of the 'Roommate' flow, one of the main components that was updated due to user feedback was the filters. We added

several more features to give the user more options to narrow their search. In the paper prototype, we had two sliders indicating levels of cleanliness and preferences towards pets. There was also a set of checkboxes indicating whether the user's preferred roommate gender was male or female. After receiving user feedback, we decided to add some additional filters that our users would find important. We created another checkbox to include in the gender preference section to indicate that a user may not have a preference to whether they live with a male or female. This gives our users more options and allows them to have a more customizable experience when finding a good roommate match. We also added another set of checkboxes to indicate occupation. The user can now filter by whether the potential options are employed, unemployed or a student. This offers information in two aspects. On one hand, the user could filter based on people with similar lifestyles as themselves. I would imagine it is much easier to live with people who are on a similar schedule, either a strict 9-5 everyday or a more flexible schedule as we have experience in college. On the other hand, this also offers insight into their financial situation. If someone indicates that they are unemployed, it may raise concern as to how they will afford rent, utilities and other necessities as a roommate. There were other little additions such as a back arrow from the larger profile to the filter page but the additional filters were the main changes that really elevated the user experience in this prototype iteration.

On the about the area page we decided to focus on the usability of the page more than the design of the page. When clicked you are taken to a simple search bar which hits almost every aspect of usability except possibly error rate. The next page displays the location you have searched for to confirm you are looking in your correct area. It also

displays local businesses with pictures and a star rating next to them, ranking from high stars to low stars. We decided to rank them from high to low as people typically want to see the most popular and best places when moving to a new area. We decided to include pictures so they can have an idea of what they are looking for. When selecting a local business we went with a similar design to other review apps with a picture, a description, and user reviews of the business below. This design is simple yet effective as the user can gather lots of information on this one page.

For the task of joining a sports league, the changes made from the paper prototype largely revolved around improved fidelity and some additional features. In terms of fidelity, colors were added to start focusing on a color scheme. We chose a blueish neutral color. Whether or not these colors remain the same in the final app, choosing a color scheme helps associate similar features of the program. Pictures were also added when a user selects a sport as well as for each of the leagues. Another feature that was added in response to the feedback from the paper prototype was the option to choose between same-gender or coed leagues. This option was added on the page where users select their sport and competition level as a box that users can check.

On the screen where users can scroll through the different leagues after searching a particular sport, the fidelity was also improved. Through Figma, users can now either drag or scroll through this page to look through the different options. The colors of the pictures for each baseball league also help to improve the general aesthetics of this page. One of the final changes that was made to improve the fidelity of this task was on the screen that displays more detail about a league. On this page, an actual description was written out so that users can actually read more information about the league. This was

improved from the general scribbles that indicated text on this section from the paper prototype.

With creating a new profile, one of the big design decisions for the persona we created was making sure he was able to fully represent himself and his interests so as to create a fuller picture of himself to connect with other users. An important update based on the feedback from the paper prototype was to make sure the information about what is going on is clearly provided at each step. There was a limit to how much detail we could provide based on the level of fidelity of the prototype but we added detail where possible, such as the opening page and message when a user clicks on the profile icon after one is created. We also made sure to include a clear error message when the user tried to create a profile without all of the required information (such as name). Finally, we made sure to add flexibility with what does and does not have to be required. For instance, there are capabilities included for if the user does not want to include a picture and there are constraints in place to allow for a profile to be further edited after the preview before confirming and publishing it to the other users.

IV. Prototyping Decisions

When designing the prototype, we considered both the filtering and implementation decisions. In terms of our filtering decisions, we started by incorporating a simple design with a blue color palette. We keep the background plain and added color to the features to highlight the important functionality of the product. We also used large, plain text to make everything easy to read and interact with. For the content of our prototype, we used realistic information in terms of what would be included such as people, stores, sports leagues, etc. However, we decided to use fake names for users,

stores, etc. The user can still get the overall experience while using the prototype even without realistic information since the filter information closely resembles what will be there in the real product. The prototype has almost all the features implemented horizontally as the user can navigate to all the pages and see the majority of the content within each subsection. For this prototype, we implemented the features vertically to an extent that the user can understand how the flow would work but avoided replicating behaviors to save time. For example, in the 'Roommate' section, there are several profiles presented after a filter is chosen to investigate further. Only two of the profiles are implemented to allow the user to click on them and view a larger profile. The other profiles navigate the user to a screen that reads "Feature under construction". Every potential roommate match's profile will look the same so we felt that it didn't need to be duplicated for the sake of this prototype. This also applies to the interactivity of our prototype. We implemented enough features to give the user the general idea of how they would interact with the application but not every button, filter, etc. fully works in this iteration of the prototype.

On the other hand, when making decisions regarding implementation, we wanted to consider the medium we used as well as the resolution. For the medium, we designed our prototype on Figma which is prototyping software. This was cost efficient and allowed the entire group to collaborate while designing which led to a more cohesive vision than our paper prototypes. This also allowed us to design a high resolution prototype since we were able to use premade icons, colors, shapes, etc. Each of us created a more hybrid model on our paper prototype so we were able to elevate this prototype with the feedback we received from users.