MYPLYMOUTH

APP DEVELOPMENT | EMILY ARMBRUSTER

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WHAT IS MYPLYMOUTH?

MyPlymouth is a mobile companion app designed to keep residents of Plymouth, CT informed, connected, and engaged with their town. It provides quick access to local government services, events, alerts, and resources in one easy-to-navigate place.

PRIMARY FUNCTIONS OF MYPLYMOUTH

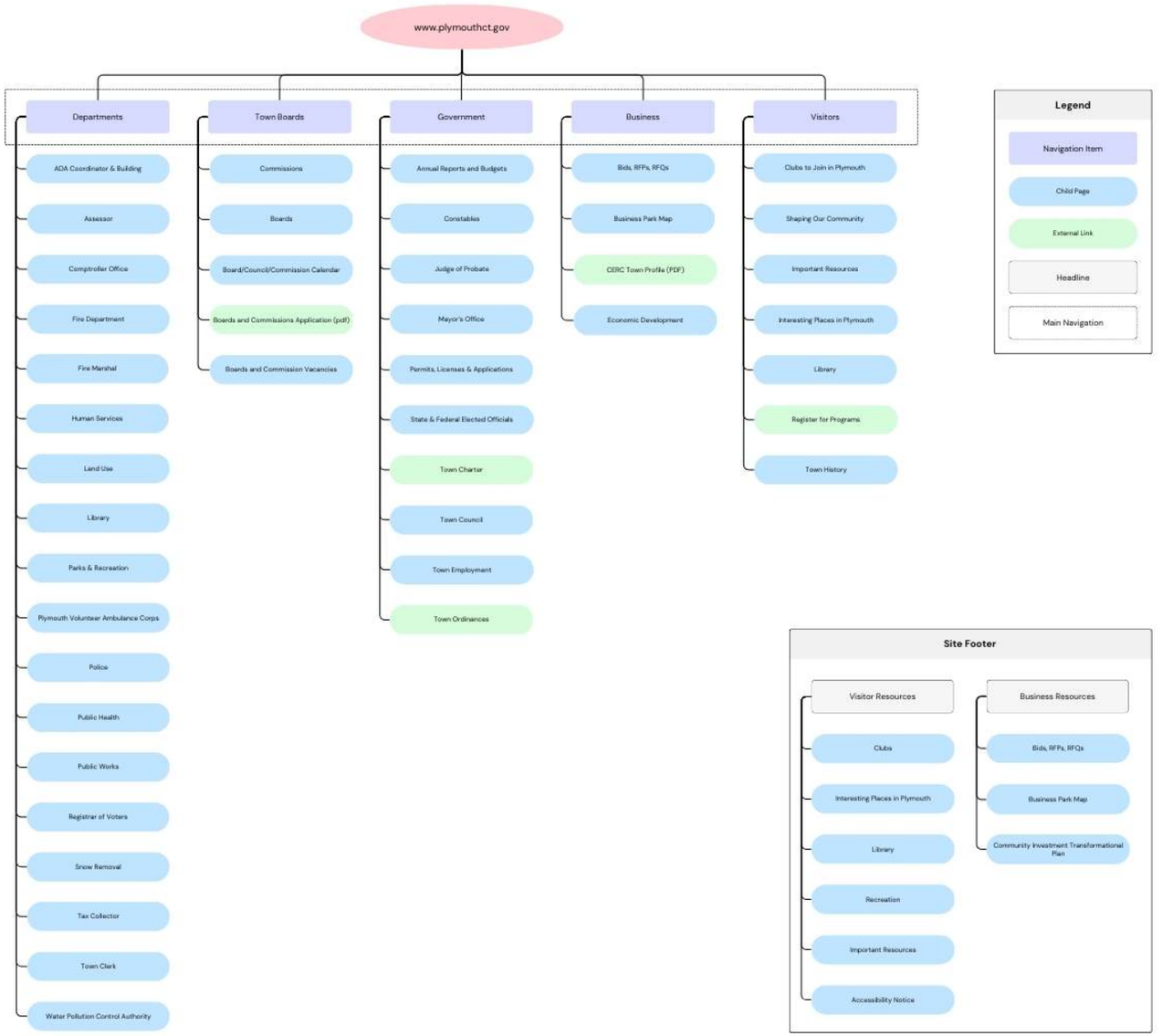
- **Stay Informed:** Get real-time emergency alerts, town announcements, and weather-related updates.
- **Civic Services at Your Fingertips:** Pay bills, apply for permits/licenses, and submit reports (like maintenance issues or hazards) directly through the app.
- **Connect with the Community:** Browse and register for programs and events. View the community calendar, including Board & Commission meetings.
- **Access Key Resources:** Explore town department info, school schedules, public resources, and elected official contacts.
- **Support Local Business:** View business park maps, economic development info, and bids/RFPs/RFQs for local opportunities.

TARGET AUDIENCE

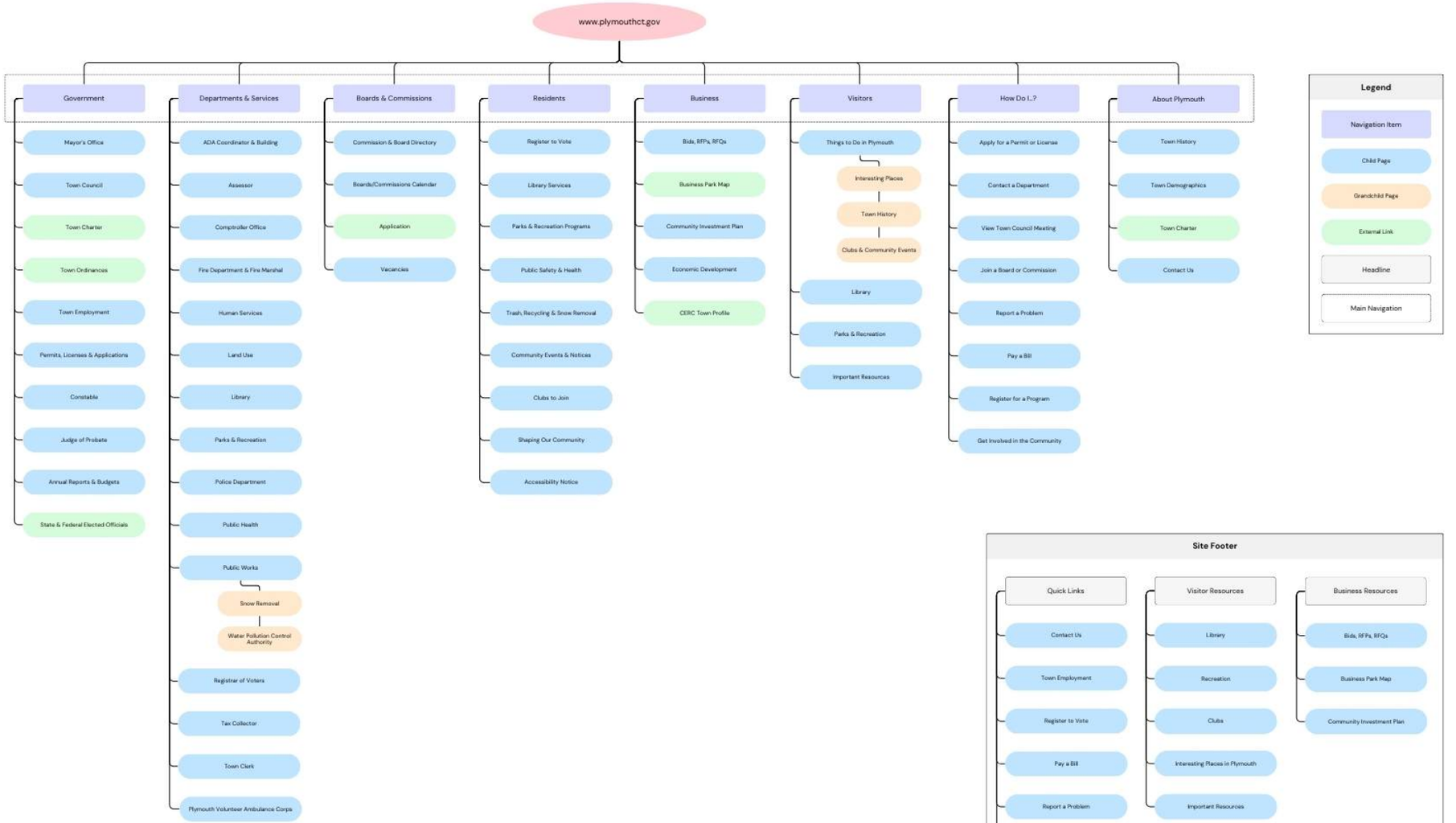
MyPlymouth is designed for residents, business owners, and community members of Plymouth, Connecticut who want an easier, faster way to stay connected with their town. Whether you're a parent looking for local events, a business owner checking permit updates, or a senior resident needing alerts about snow delays.

INFORMATION ARCHITECTURE

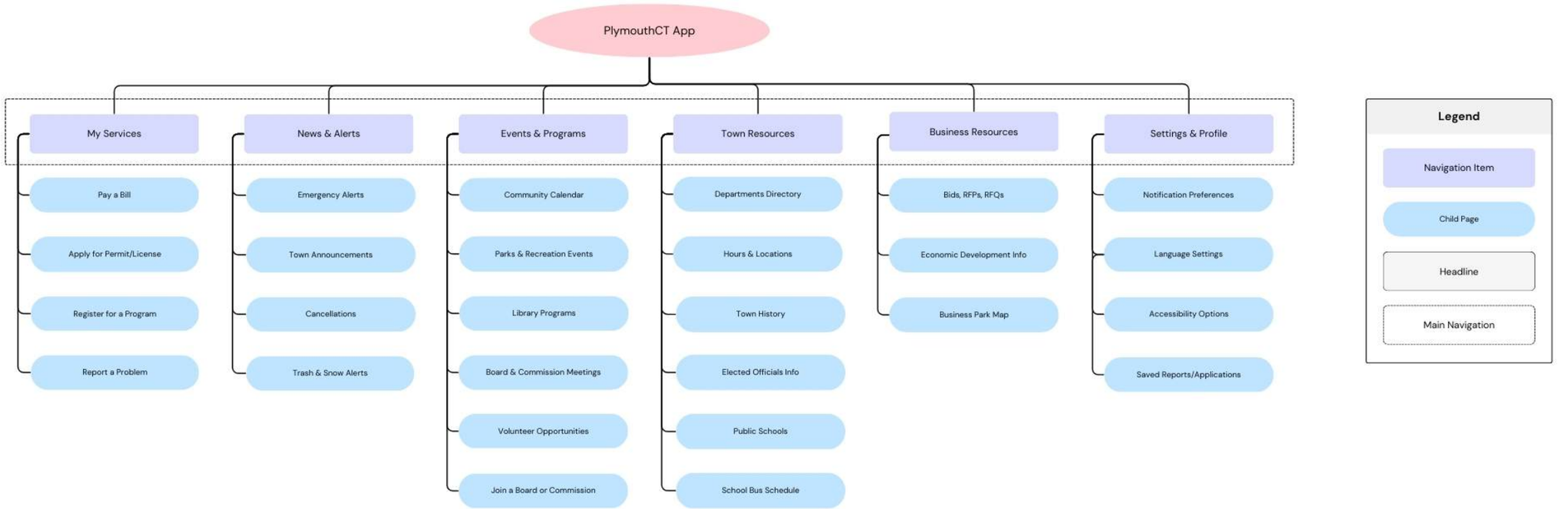
CURRENT WEBSITE SITEMAP

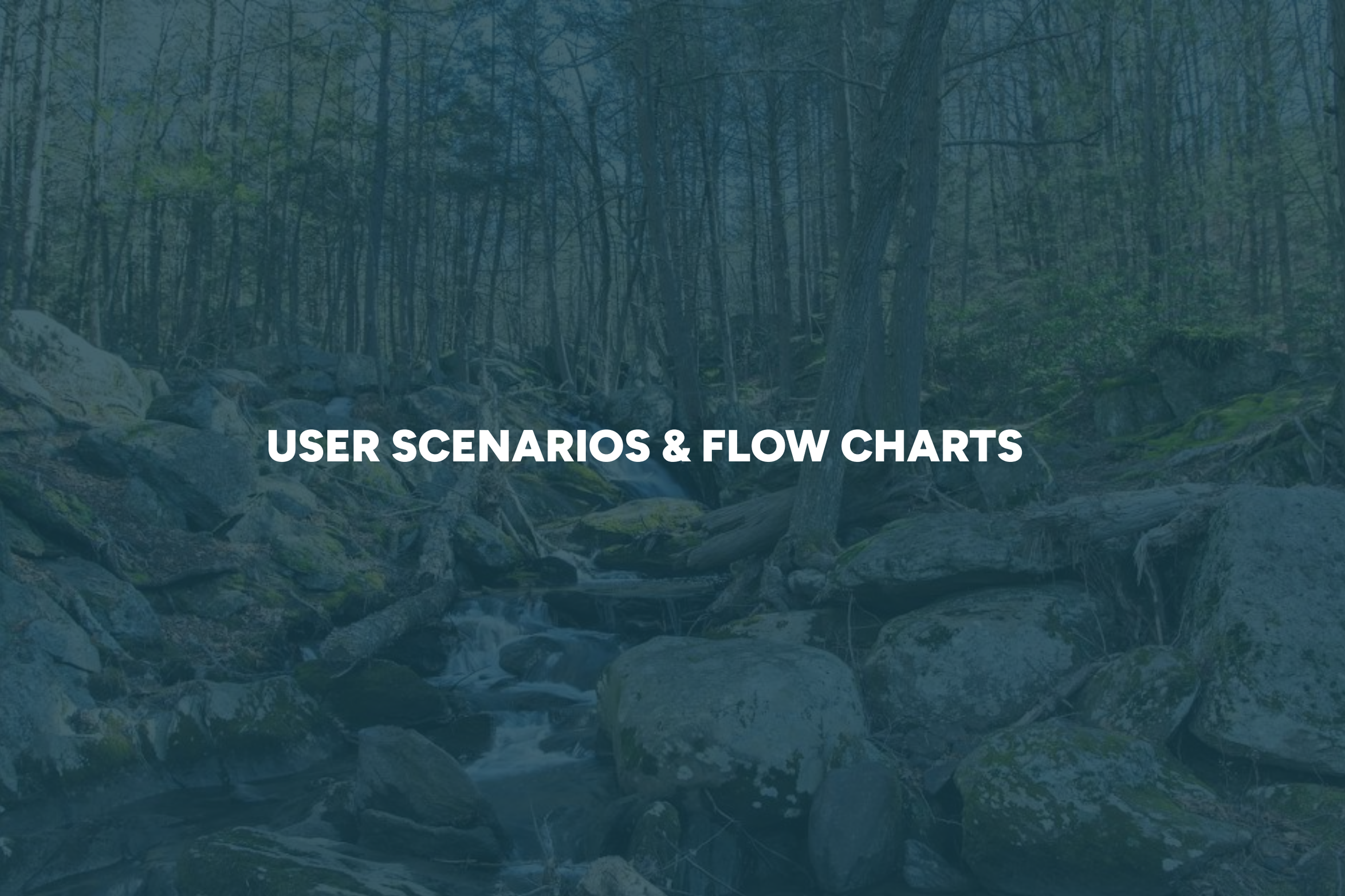


PROPOSED WEBSITE SITEMAP



PROPOSED APP SITEMAP





USER SCENARIOS & FLOW CHARTS

USER STORIES

JANE

“As a working parent, I want to quickly find and register my kids for local library and recreation programs, so I can keep them active and engaged without having to dig through different websites.”

CARLOS

“As someone who likes being involved in my community, I want to get updates on town board meetings and volunteer opportunities so I can stay informed and participate when needed.”

LENA

“As a small business owner, I want to access permit applications and see open town bids and RFPs so I can manage my business with less paperwork and more transparency.”

USER SCENARIOS

JANE

SCENARIO 1 – BUSY PARENT

Jane is a full-time marketing coordinator with two children, ages 6 and 9. Between work and school drop-offs, her time is limited. She's looking for affordable weekend activities to keep her kids engaged and off screens, but she often forgets to check flyers or town bulletin boards. On her lunch break at work, she opens the MyPlymouth app on her phone to explore local options. She navigates to Library Programs, filters for age-appropriate events, and finds a Saturday craft hour and a STEM workshop hosted by Parks & Rec. With just a few taps, she registers both kids, receives confirmation emails, and adds the events to her family calendar.

CARLOS

SCENARIO 2 – ACTIVE RESIDENT

Carlos is a high school social studies teacher who recently moved to Plymouth. He's deeply interested in civic engagement and wants to be an active part of his new town's future. Between teaching and coaching his school's debate team, he doesn't have time to visit town hall or look at the website for ways to get involved. One evening, he downloads the MyPlymouth app on his tablet. Browsing through the Town Resources section, he finds a list of Volunteer Opportunities and notices an open spot on the Historical Preservation Board. He taps Join a Board or Commission, submits his interest form, and enables notifications for future board meetings.

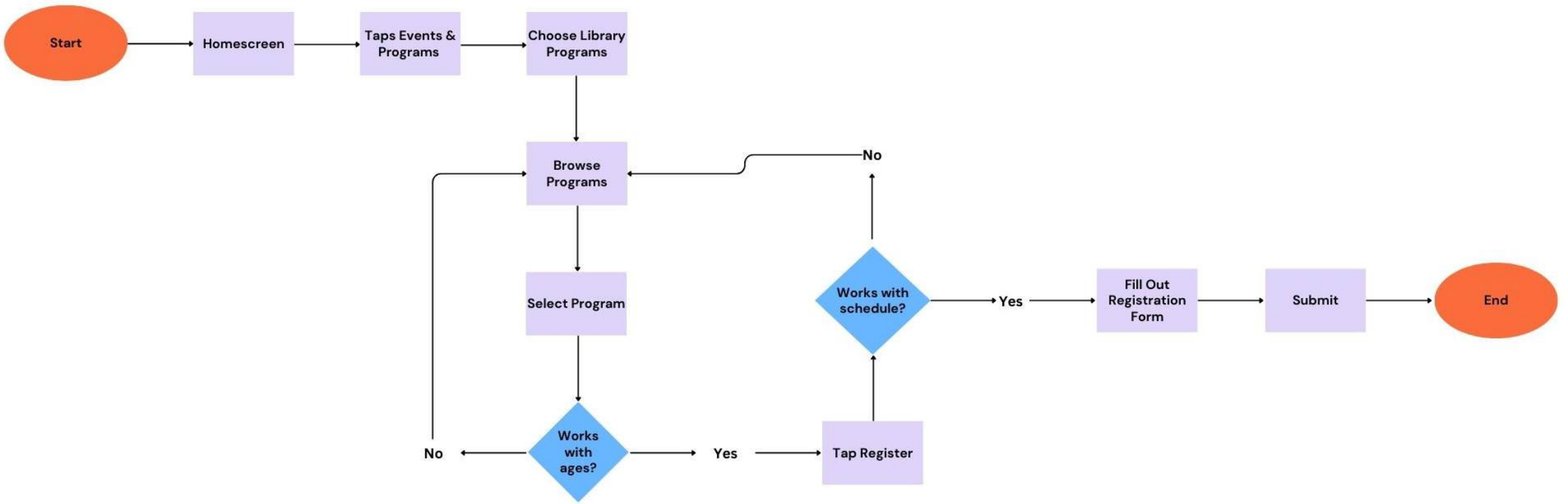
LENA

SCENARIO 3 – BUSINESS OWNER

Lena owns a small, family-run restaurant near the town center. Business is steady, but she's looking for more ways to stay engaged with the town and bring in more catering work. After a customer tells her about a town event seeking local food vendors, Lena checks the MyPlymouth app. She heads to the My Services section to renew her food service license, which is due soon. Then, she navigates to Business Resources, where she browses the latest Bids, RFPs, and RFQs. She sees an open RFP for catering an upcoming Parks & Rec event, downloads the document, and prepares her proposal.

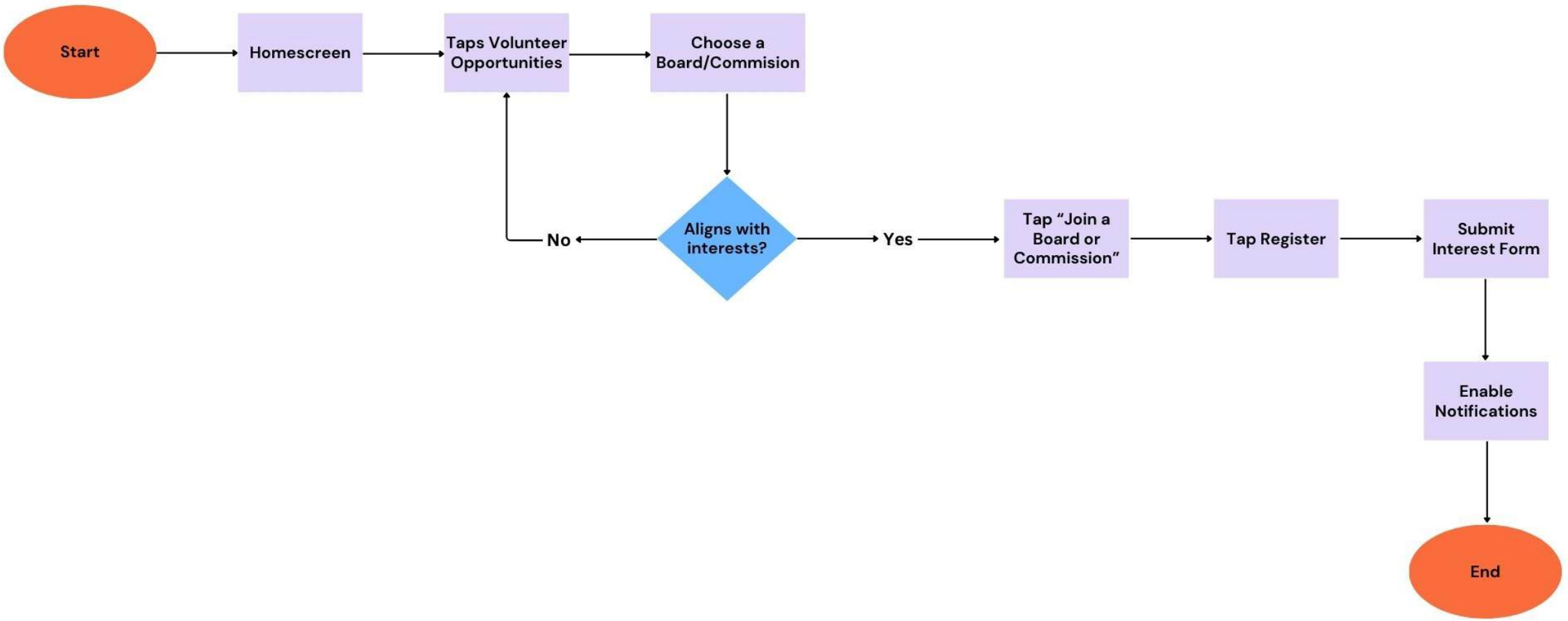
USER FLOW 1: JANE

“As a working parent, I want to quickly find and register my kids for local library and recreation programs, so I can keep them active and engaged without having to dig through different websites.”



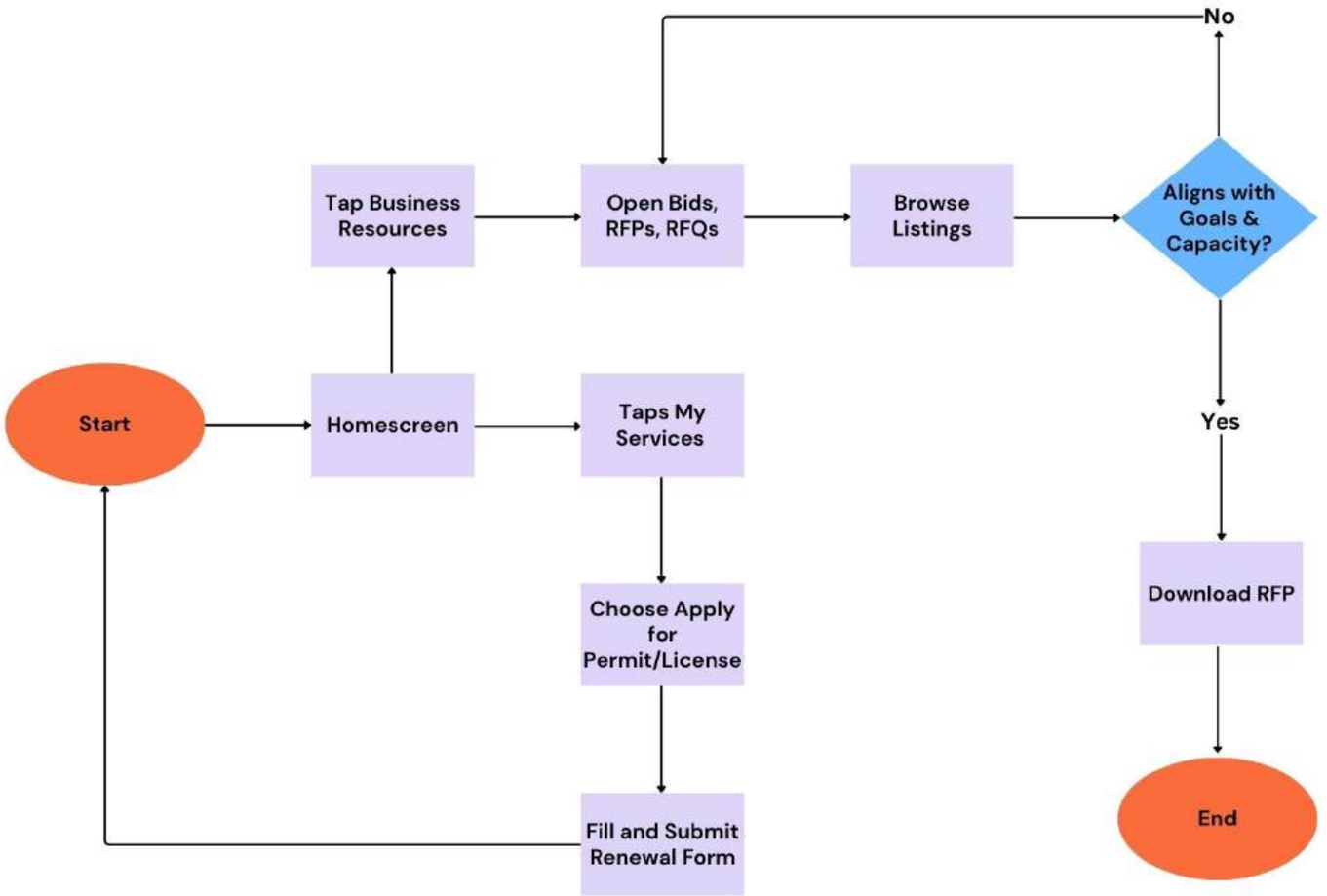
USER FLOW 2: CARLOS

“As someone who likes being involved in my community, I want to get updates on town board meetings and volunteer opportunities so I can stay informed and participate when needed.”



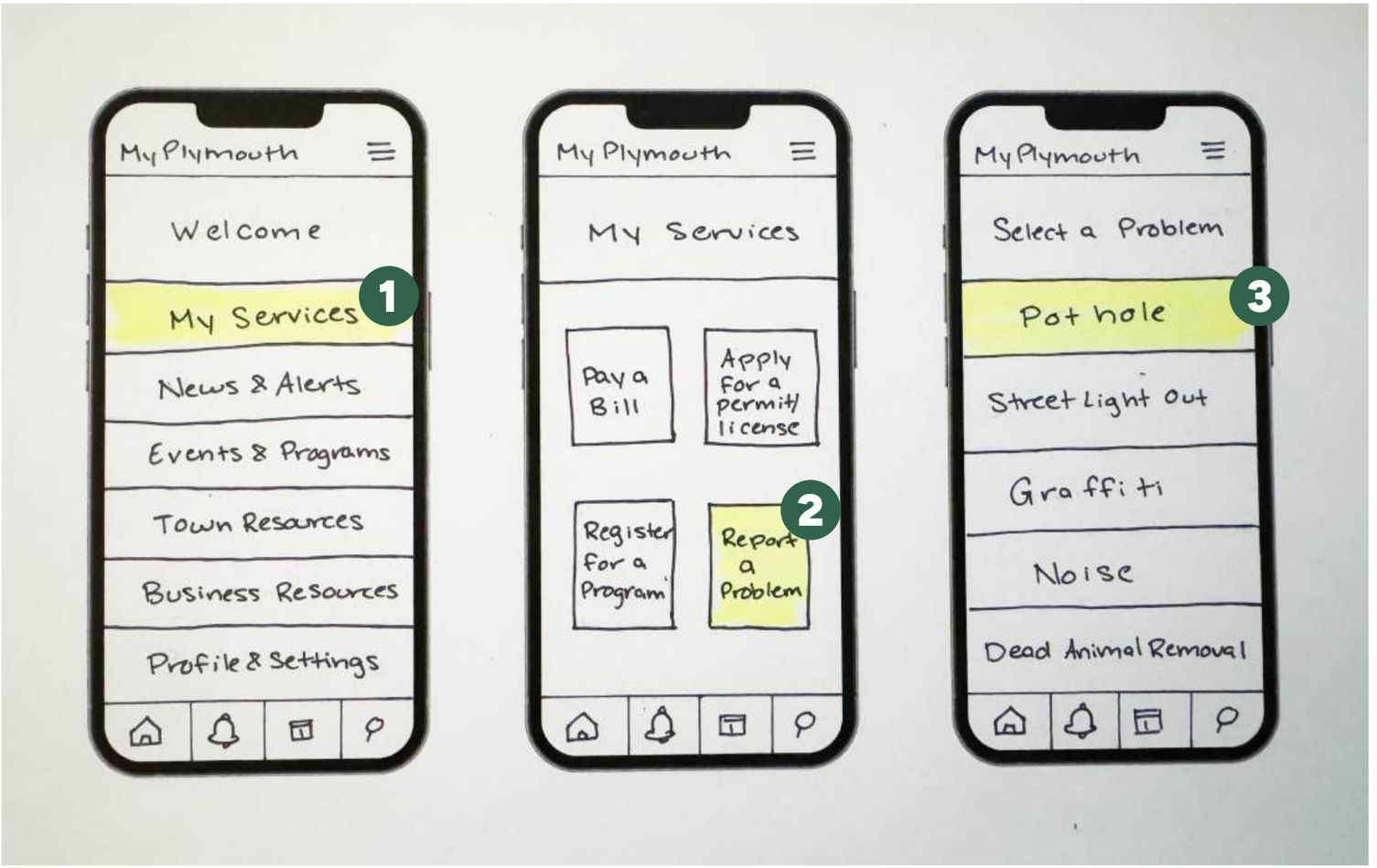
USER FLOW 3: LENA

“As a small business owner, I want to access permit applications and see open town bids and RFPs so I can manage my business with less paperwork and more transparency.”



LOW-FIDELITY PROTOTYPES

TASK 1: REPORT A TOWN ISSUE



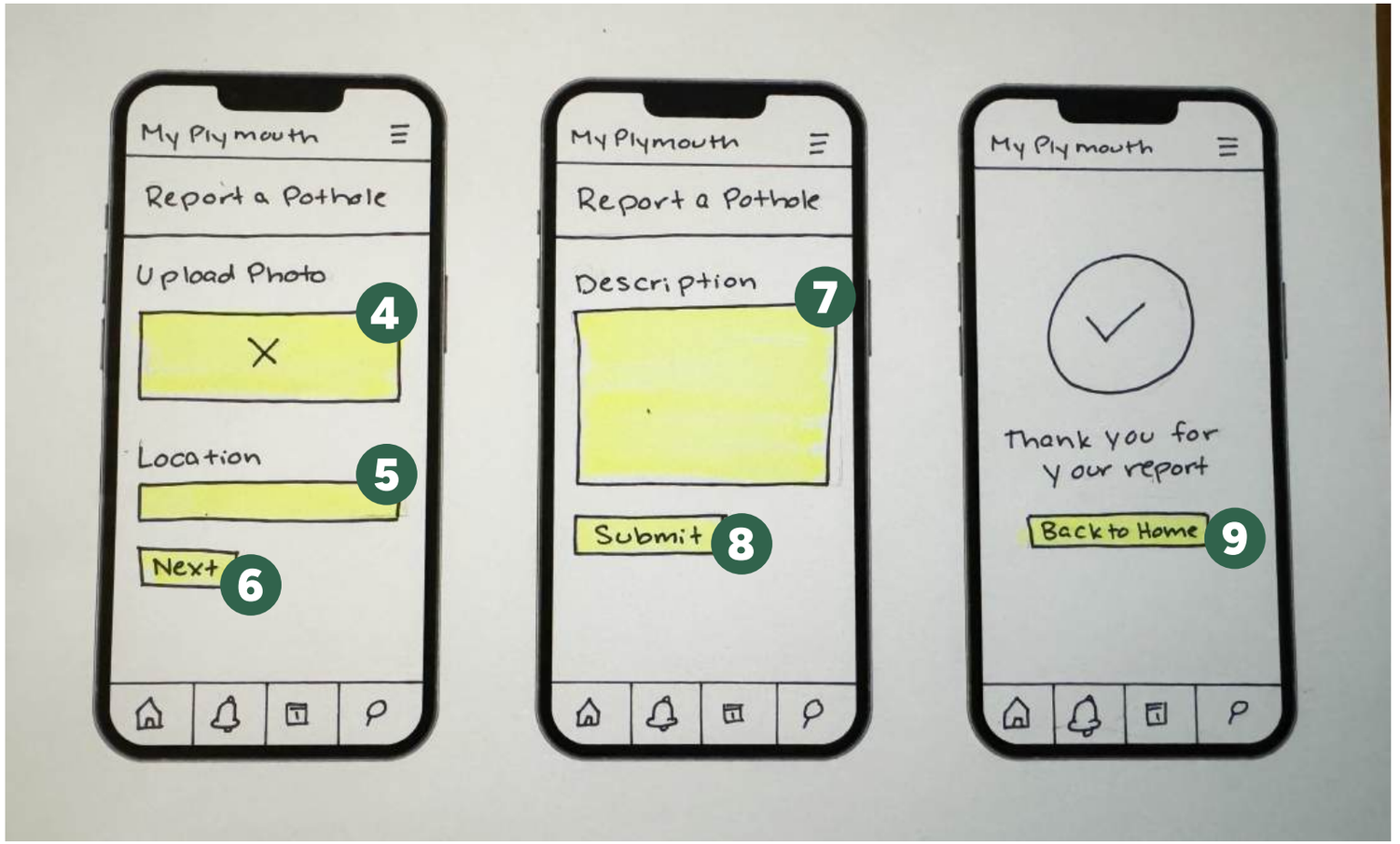
= Area the user has to interact with to complete the task

1. User opens the app to the home screen and selects “My Services” from the actions listed.

2. After clicking “My Services”, user is brought to the page where all of the services are listed. User then selects “Report a Problem”.

3. User is then prompted to select the problem they would like to report from a scrollable list of issues.

TASK 1: REPORT A TOWN ISSUE



= Area the user has to interact with to complete the task

4. After selecting their problem, the user is asked to upload an image of the issue.

5. The user is asked the identify the location of the problem.

6. The user will click next to add more information.

7. The user is then asked to add a description of the issue.

8. The user will finish the form by hitting submit and will be redirected to a confirmation page.

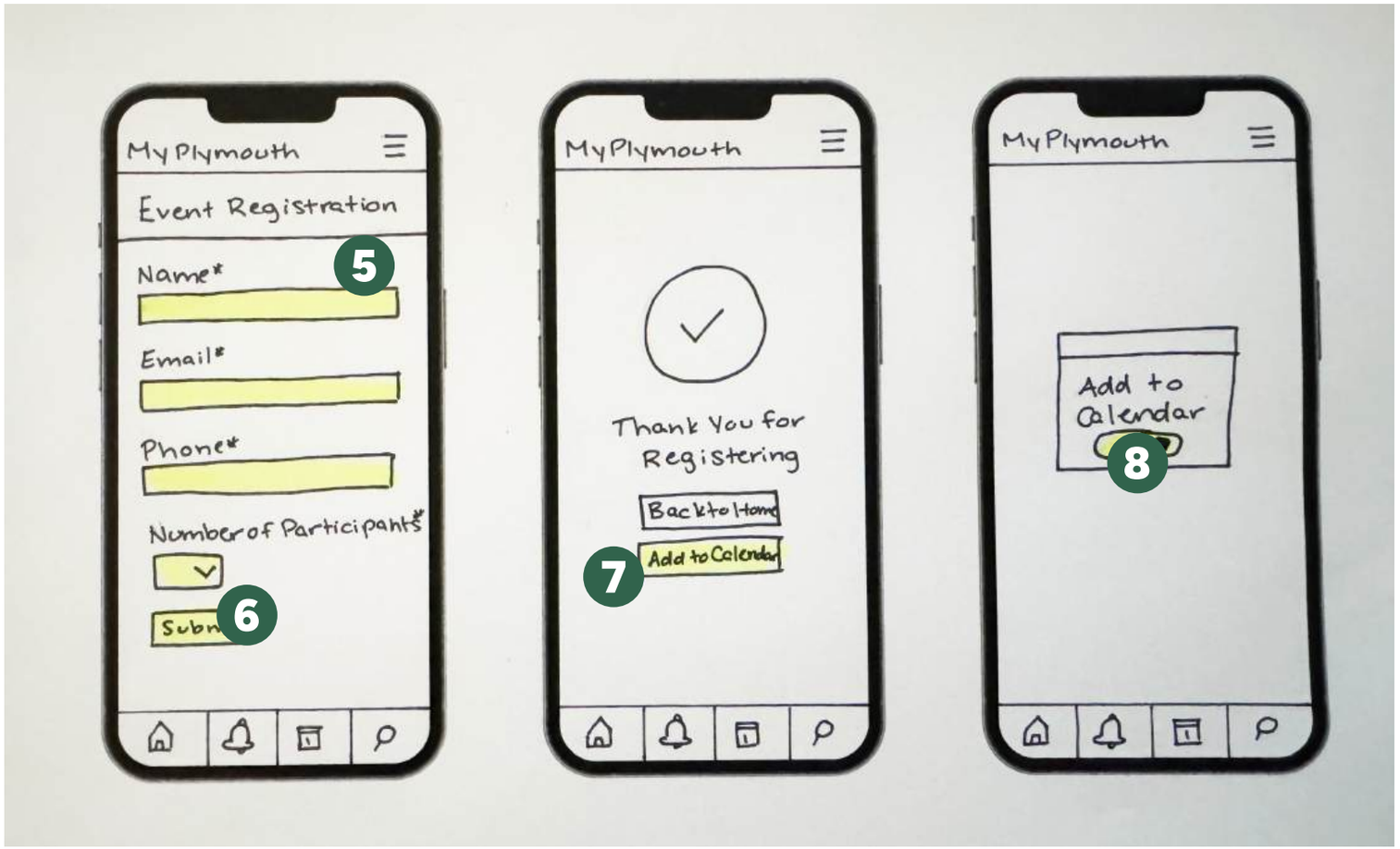
9. User can click “Back to Home” button to return to the main menu

TASK 2: REGISTER FOR A LOCAL PROGRAM

1. User opens the app to the home screen and selects “Events & Programs” from the actions listed.
2. The user can select and view an event from the calendar.
3. The events are also displayed in a scrollable list for the user to select from. An overview of the event is also displayed.
4. The event details page displays all necessary information about the event and users can click Register to fill out the registration form.

= Area the user has to interact with to complete the task

TASK 2: REGISTER FOR A LOCAL PROGRAM



5 The user will fill out the registration form including their name, email, phone, and number of participants.

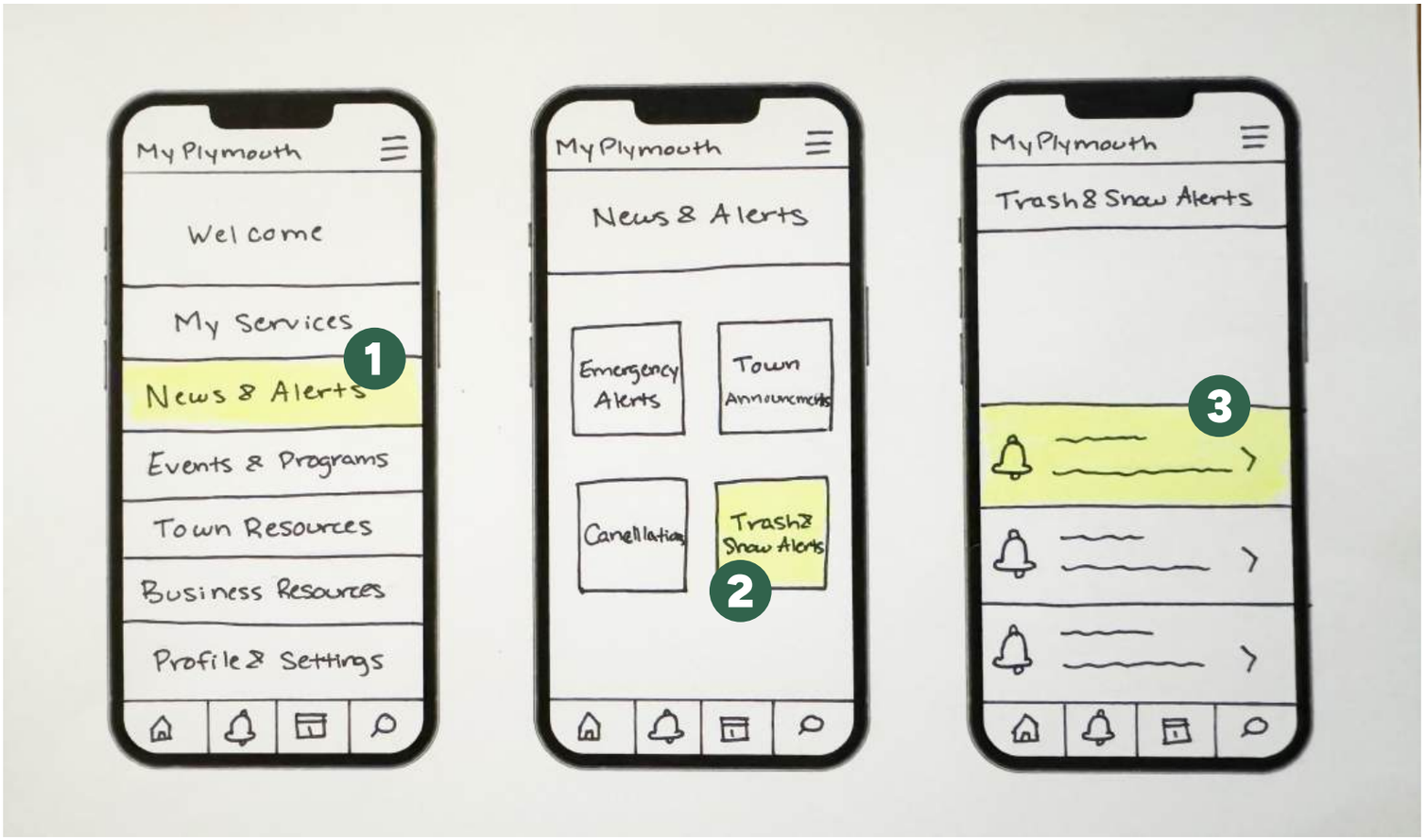
6 Hitting “Submit” will send the form and redirect the user to a confirmation page.

7 On the confirmation page, there will be two options; to go back to the homepage or to add the event to their calendar

8 If they select “Add to calendar”, a popup will appear asking them to toggle on the event.

= Area the user has to interact with to complete the task

TASK 3: CHECK TRASH & SNOW ALERTS



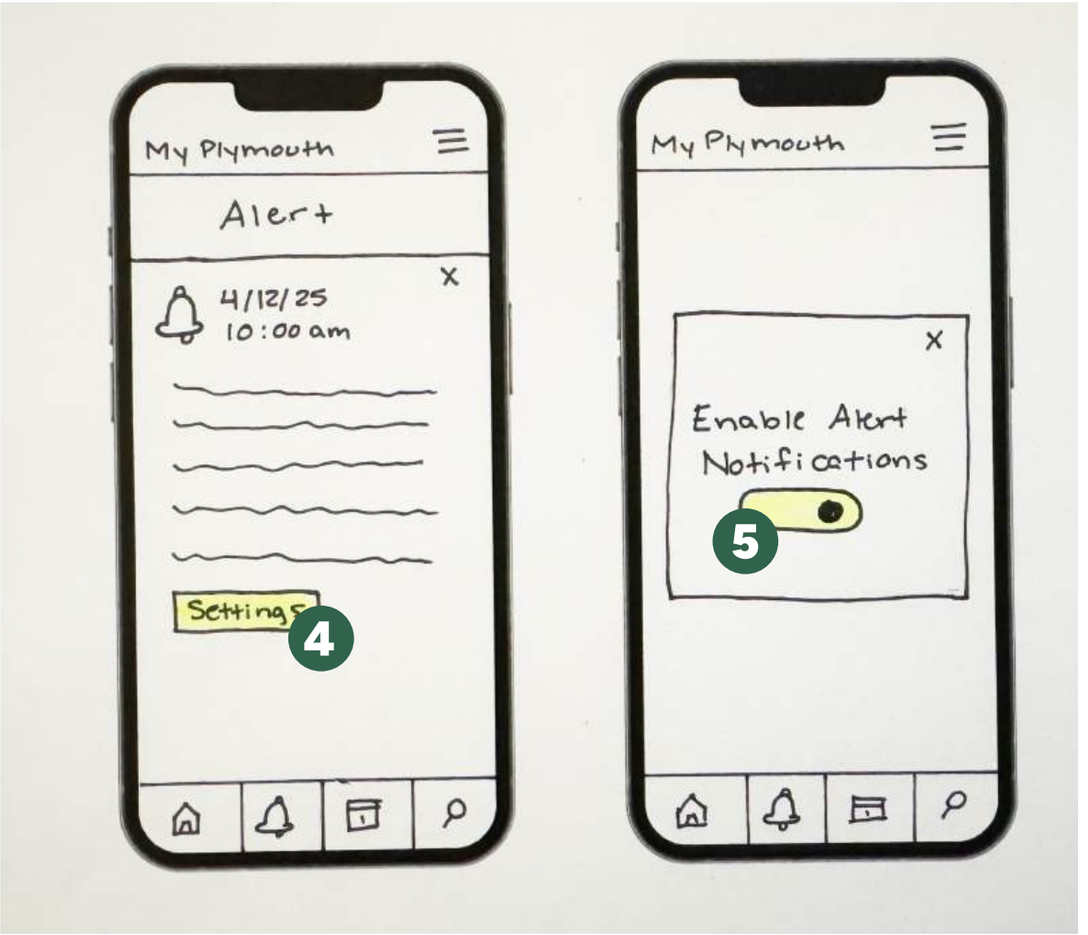
1. User opens the app to the home screen and selects “News & Events” from the actions listed.

2. After clicking “News & Events”, user is brought to the page where all of the services are listed. User then selects “Trash & Snow Alerts”.

3. User is then shown a scrolling list of all notifitcations. To view more about the alert, they can select the alert.

= Area the user has to interact with to complete the task

TASK 3: CHECK TRASH & SNOW ALERTS

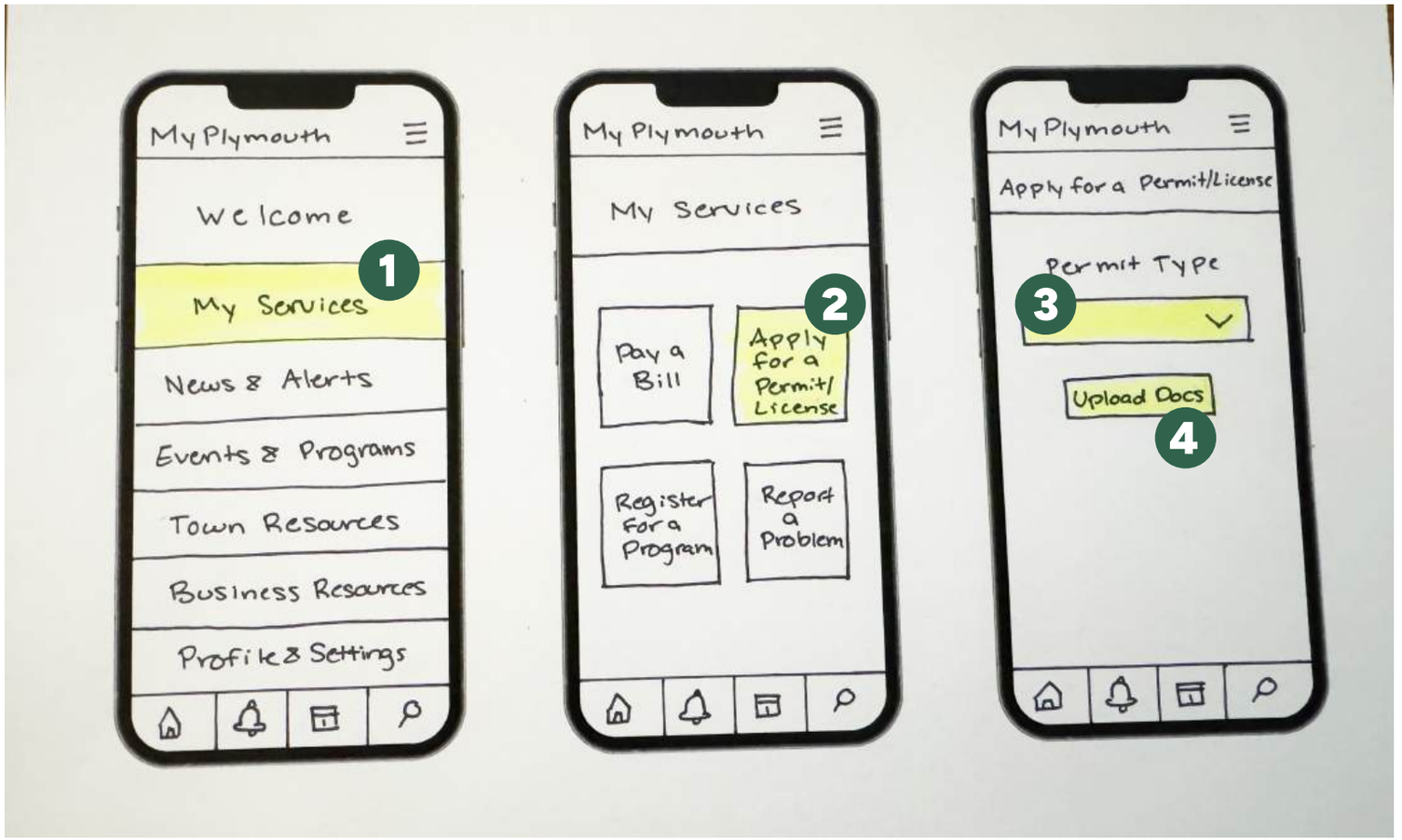


= Area the user has to interact with to complete the task

4 After selecting the alert, users will see the full alert message along with the time and date it was sent. There is also a “Settings” button where they can view their notification settings.

5 A popup will appear asking the user if they would like to enable alert notifications. They can toggle this on or off.

TASK 4: APPLY FOR A PERMIT OR LICENSE



1. User opens the app to the home screen and selects “My Services” from the actions listed.

2. After clicking “My Services”, user is brought to the page where all of the services are listed. User then selects “Apply for a Permit/License”.

3. User is then prompted to select the type of permit they are applying for from a dropdown menu.

4. After selecting their permit, the user will click the button to upload their documents.

= Area the user has to interact with to complete the task

TASK 4: APPLY FOR A PERMIT OR LICENSE

4. The user will then be asked to fill out the application form including their name, email, phone, and address.

5. The user will also have to upload any necessary documents needed for the license.

6. The user will click “Submit” and be redirected to a confirmation page.

7. On the confirmation page, they will either be able to go back to the homepage or view their saved applications.

8. On the Saved Applications page, the user can see all submitted applications and whether or not they were approved.

= Area the user has to interact with to complete the task

USABILITY TESTING

ABOUT THE TEST

This user test is designed to see how participants interact with the MyPlymouth app. Two sessions with two different participants were conducted using the POP (prototyping on paper) method. The tests were conducted in person using the Marvel App and were screen recorded for the researcher to refer to at a later point. The goal of the test is to see how the users navigate through the app when given specific tasks to complete. This test is to determine what works well with the prototype and what needs to be adjusted before high-fidelity prototypes are created.

TASK SCENARIOS

Participants were given the following tasks to comeplete:

- You're walking through your neighborhood and notice a large pothole near your house. It's been there for a while, and you'd like to report it to the town.
- You're interested in getting more involved in your community and want to register for a local yoga class offered by the town next weekend.
- You think a snowstorm is coming soon and want to double-check if your trash pickup will be delayed.
- You're planning a block party and need to apply for a permit. After submitting the application, you'd also like to check the status of past permits you've submitted.

MARVEL APP LINK

The interactive prototype can be found through this link:

https://marvelapp.com/prototype/806a8gc/screen/97057541

TEST SCRIPT

Hi, my name is Emily Armbruster and I am working on behalf of the app MyPlymouth. Thanks so much for coming in today. We'll spend the next ten minutes or so talking about your thoughts and impressions of the app.

If you don't mind, I'd like to make a recording of our session. This will allow me to refer back to your feedback later without needing to take detailed notes during our conversation. Please remember—there are no right or wrong answers here, and I won't take offense to anything you say. Your honest feedback is incredibly valuable and will help us improve the product.

If at any point you feel like you don't have a particular opinion, or aren't sure how to answer something, that's totally fine—just let me know.

Before we begin, I do have a non-disclosure agreement for you to sign. This just asks that you don't share anything about the app or this session with others.

Here's how this will work: I'm going to give you a few tasks to complete using the MyPlymouth prototype. While you're working through them, I ask that you think out loud—say what you're looking for, what you expect to happen, or anything that stands out. I want to get a sense of how you naturally interact with the app.

I may not answer your questions right away, since I'd like to see how you approach things on your own, but I'm happy to follow up on anything once we've wrapped up.

Okay, ready? Let's get started!

PARTICIPANT 1

- **Gender:** Male
- **Age:** 31
- **Education:** High School Diploma
- **Career:** CEO

PARTICIPANT 1 FEEDBACK

Task 1: User was able to complete the task with no issues. They suggested having the app allow for location services to be enabled in order to directly attach the location they are at. They also suggested that the photo is analyzed by the app to fill in the description.

Task 2: User completed the task with no problems. They suggested that on the registration form to have the ability to add information for other participants if they are choosing to bring them.

Task 3: User completed the task with no problems. They suggested different wording for the button to turn on notifications.

Task 4: User completed the task with no issues. They only found difficulty when thinking about checking saved applications. They said there should be a way to do only that task without applying for a new permit.

SCREEN RECORDING

The screen recording of this testing session can be found through this link:

https://youtu.be/mgJu2ntQW6w?si=pUU9sKsRB8TA26-8

PARTICIPANT 2

- **Gender:** Male
- **Age:** 27
- **Education:** High School Diploma
- **Career:** Videographer

PARTICIPANT 2 FEEDBACK

Task 1: User had one issue finding where to submit a problem for the pothole. After finding the correct tab, they thought that the flow was very straightforward.

Task 2: The user had no issues in completing the task. They really liked having the ability to add the event to their calendar, but suggested that it shows different types of calendars (Apple, Google, etc).

Task 3: The user found this task very easy to complete and liked being able to see more about the notification.

Task 4: The user was able to complete the first part of the task, but was slightly unsure about the wording on the button to view saved applications.

SCREEN RECORDING

The screen recording of this testing session can be found through this link:

https://www.youtube.com/watch?v=ODEClIID2LI

SUMMARY OF FINDINGS

Overall, both participants were able to complete all tasks with minimal difficulty, indicating that the MyPlymouth app has a strong foundational structure. However, their feedback revealed several areas for improvement and helpful suggestions to enhance the user experience.

Task 1: Submitting a Problem

One participant initially struggled to locate where to submit a pothole issue, but found the flow intuitive once identified. Suggestions included enabling location services to automatically attach the user's location and using photo analysis to help fill in the description.

Task 2: Event Registration

This task was completed easily by both users. One participant appreciated the ability to add events to a calendar but recommended offering options for different calendar types (e.g., Apple, Google). Another suggested adding the ability to register additional attendees during sign-up.

Task 3: Checking Alerts

Both users found this task simple and liked the ability to view more details about notifications. However, they suggested the button wording could be clearer to better reflect its purpose.

Task 4: Applying for a Permit

While users completed this task successfully, both found the label for accessing saved applications slightly confusing. They recommended clearer wording to distinguish it from starting a new application.

HIGH-FIDELITY PROTOTYPES

PROTOTYPING SUMMARY

I chose to develop my prototype in Figma. I use Figma in my career as a website designer to create mockups of web pages. I have not spent much time using Figma's prototyping tools since it's not required in my role. I chose Figma for my prototype to further advance my skills in the software. Figma is very popular for app development and prototyping because of its collaboration and interactivity capabilities.

Based on the feedback I received during my usability tests, I changed minor details from my paper prototypes. I added a login screen since that was not included in my low fidelity prototype. I also changed the text on the button on the trash and snow alert popup because my users stated they felt that simply saying "Settings" was unclear.

I kept the design of the application simple and clean so that it was accessible to all users of the app. The target audience is residents and business owners of Plymouth, so there would be a wide variety of ages using the app.

FIGMA PROTOTYPE LINK

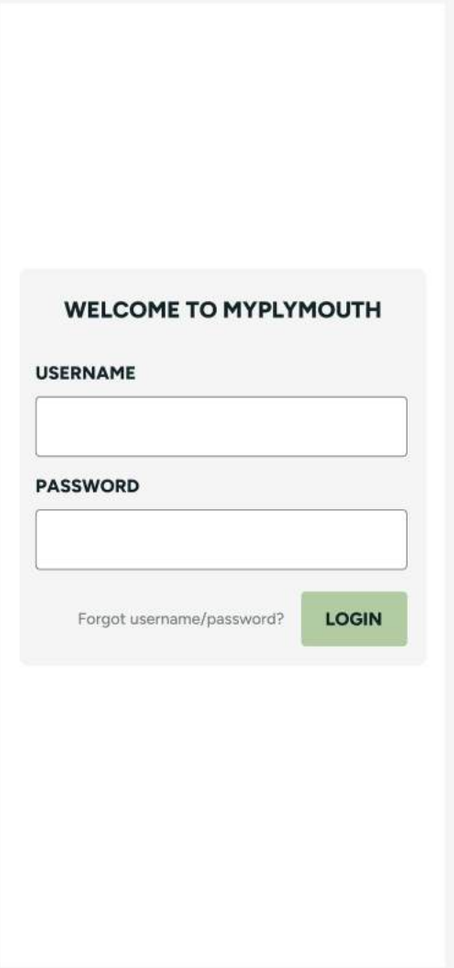
The interactive prototype can be found through this link:

https://www.figma.com/proto/6Mh8DGk6exe36PUHVbwLkS/ICM-517--MyPlymouth-Prototype?page-id=0%3A1&node-id=1-2&viewport=141%2C86%2C0.13&t=YEzAzzmG6FpyS2rw-1&scaling=scale-down&content-scaling=fixed&starting-point-node-id=1%3A2

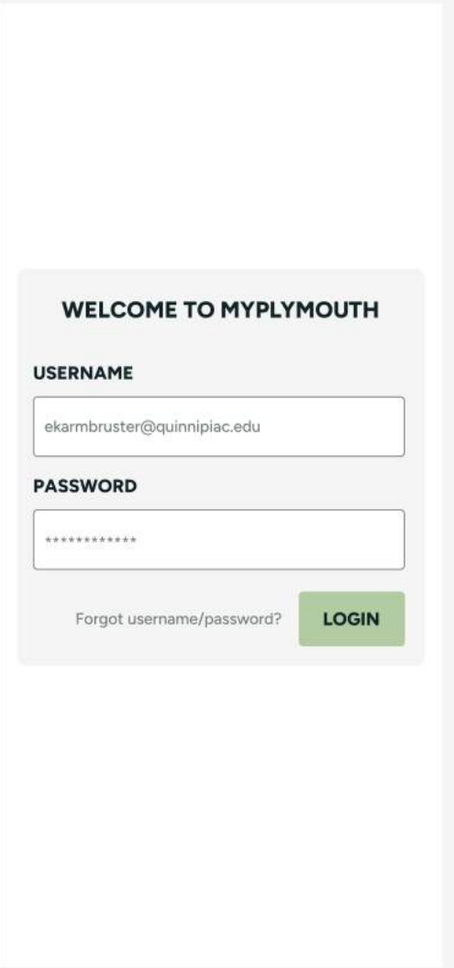
SCREEN CAPTURES: START

Load Screen

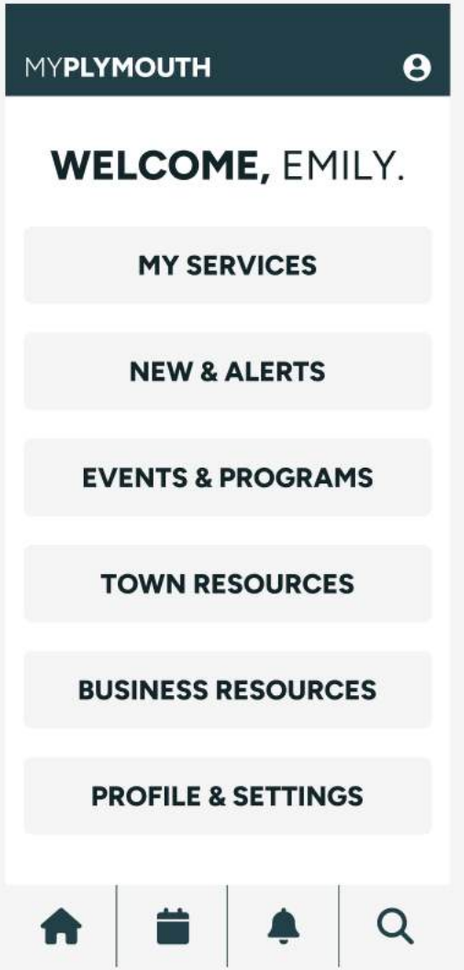
Login Screen



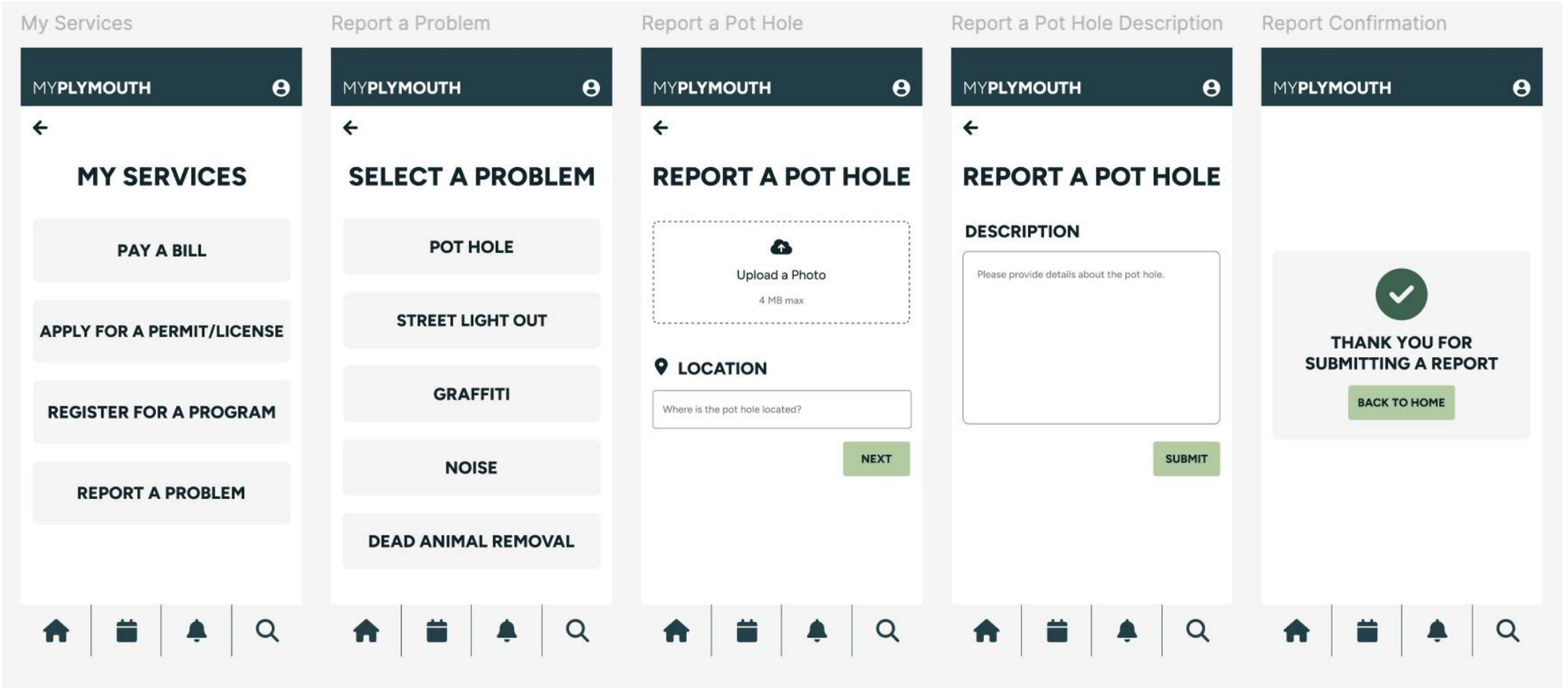
Login Screen with Credentials



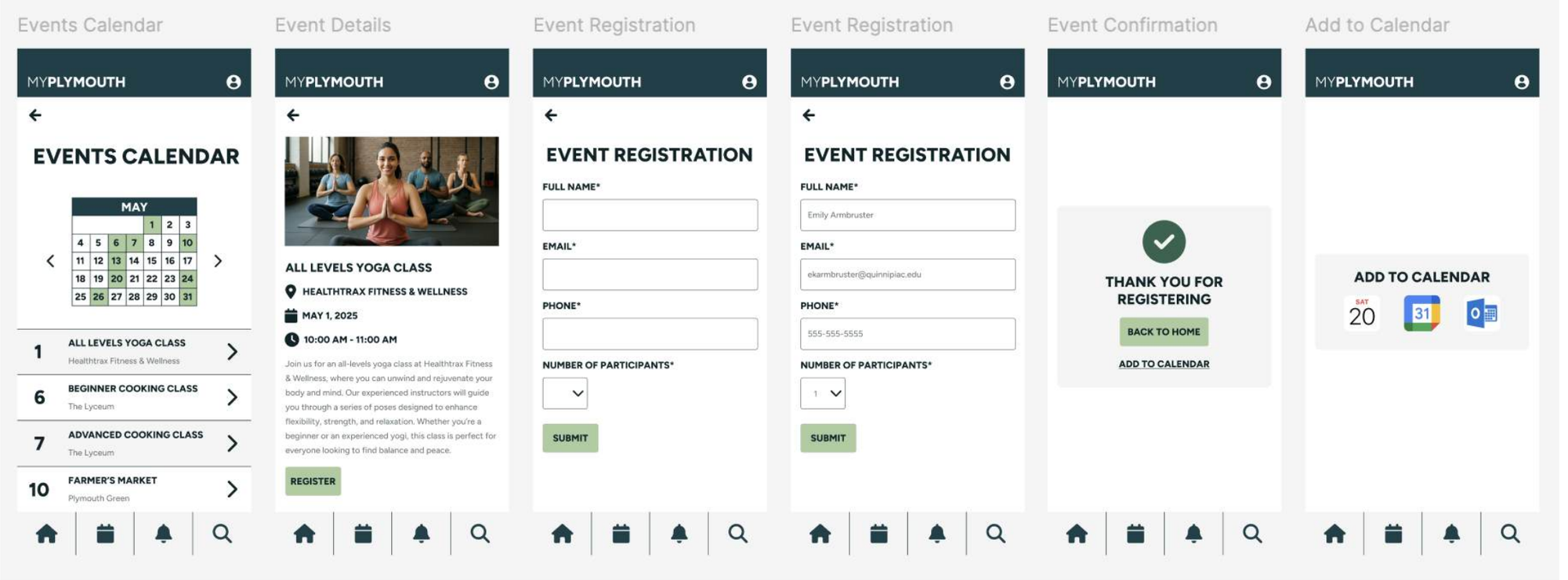
Home Screen



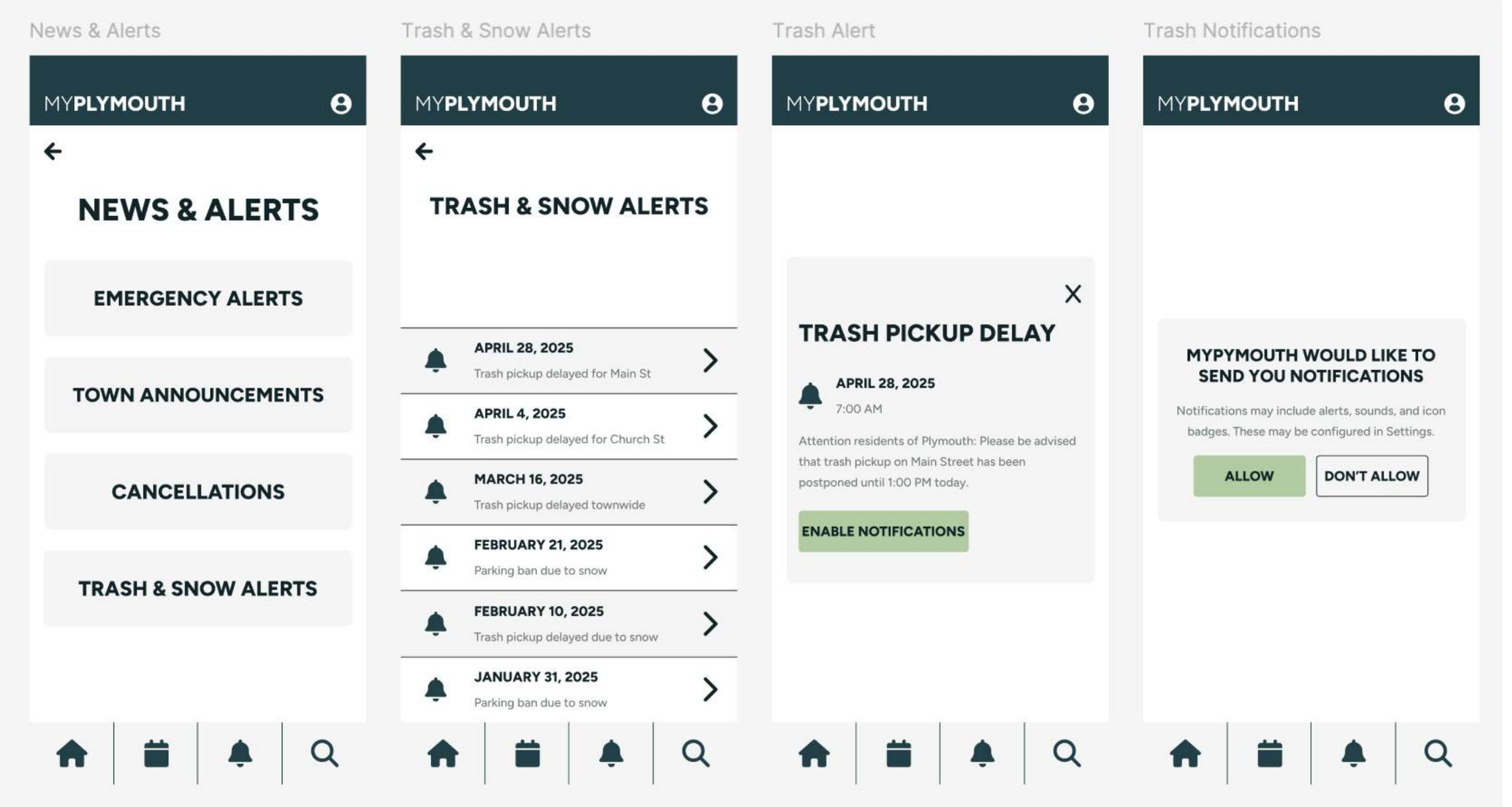
SCREEN CAPTURES: REPORT A PROBLEM



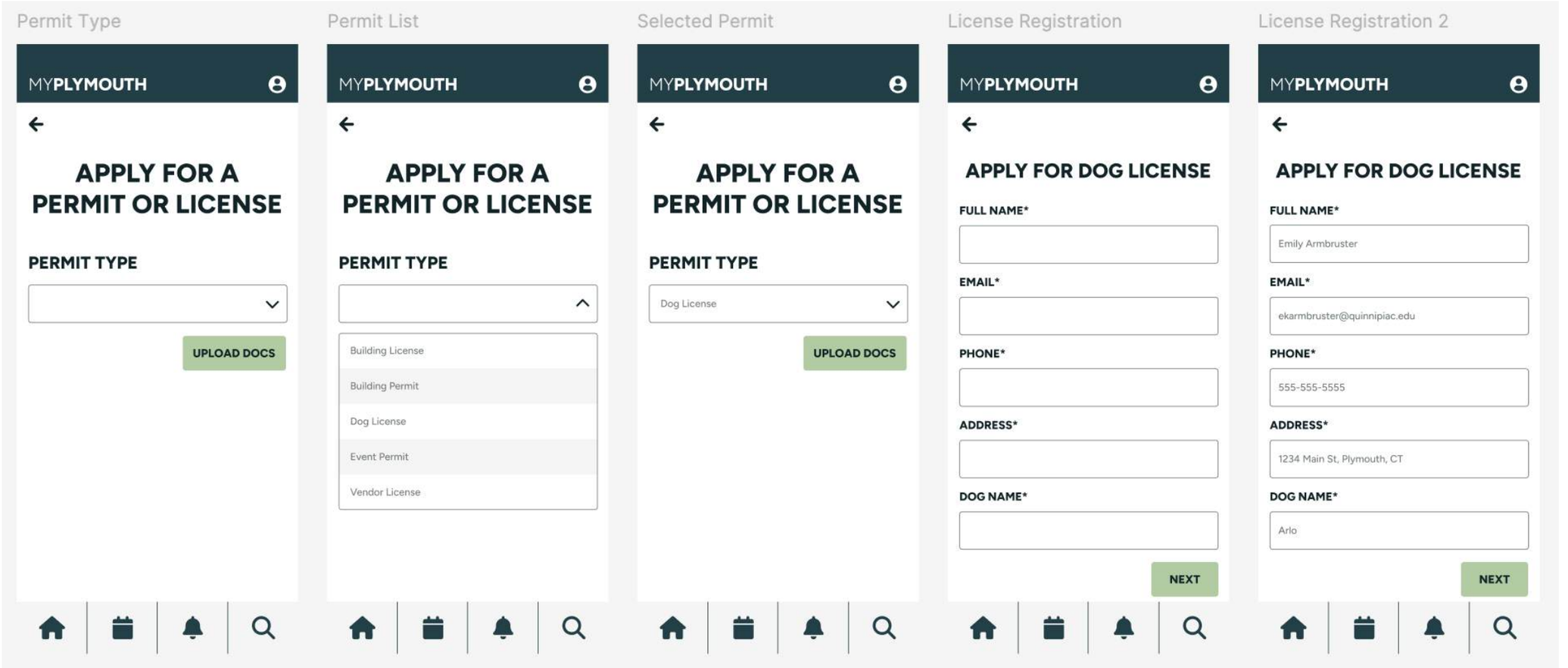
SCREEN CAPTURES: REGISTER FOR EVENT



SCREEN CAPTURES: CHECK TRASH & SNOW ALERTS



SCREEN CAPTURES: APPLY FOR PERMIT/LICENSE



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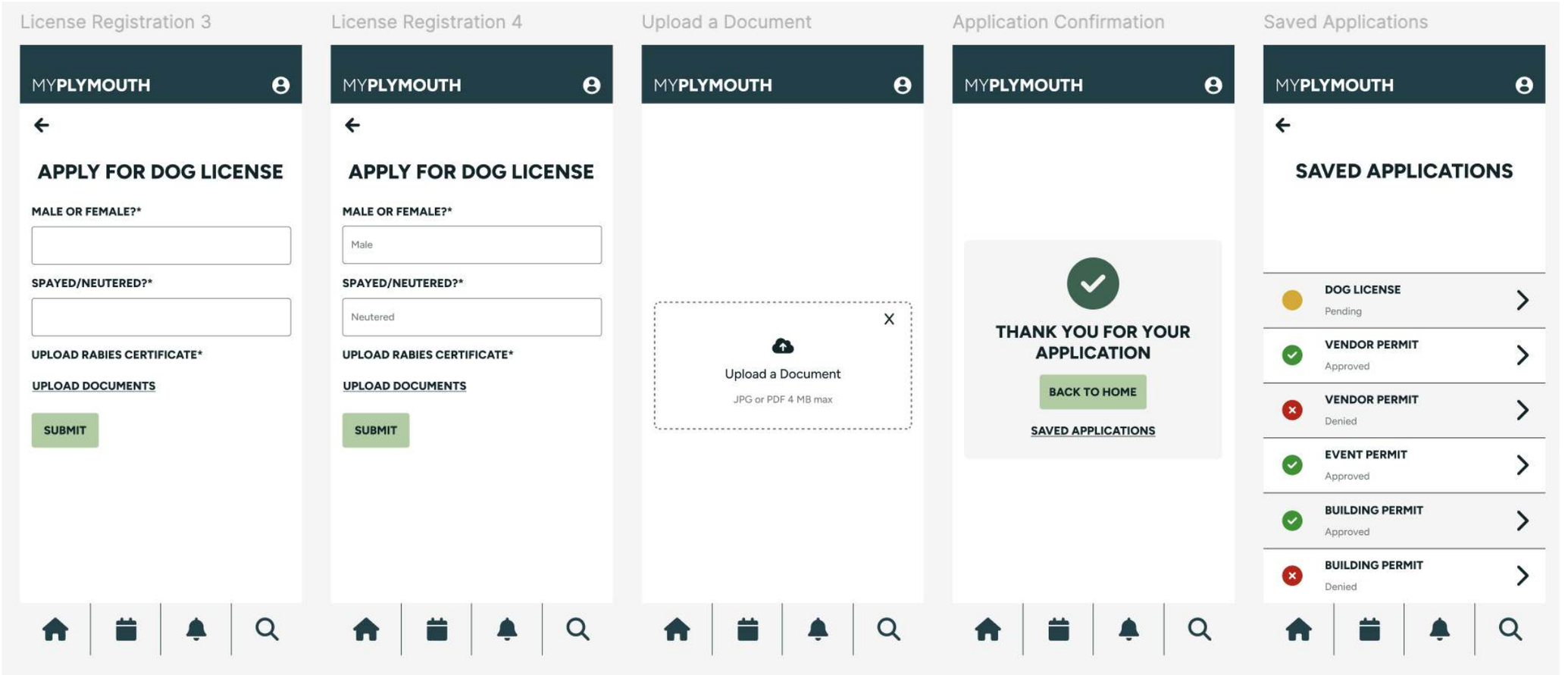

REFLECTION

As a current website designer, I was very familiar with many aspects of this project and this course. I have a good amount of experience with website sitemaps, wireframes, and Figma. However, the businesses and websites I work with on a daily basis are very different from municipal sites. I found that municipal sites are filled with a large amount of information that is meant to cater to a wide variety of users. I found that each step that was taken prior to the high-fidelity prototypes was crucial in the development of this app. I think if I had jumped into prototyping, without thinking about information architecture or testing my ideas, I would have been much more frustrated and discouraged. I rarely found myself feeling like that during this process and I think that it was because each step was taken with care.

After completing this project, I find myself much more curious about the world of UX design and app development. It has definetly taught me different ways of thinking about how users interact with a product which I can use in my current career. It has also left me very curious about the world of UX design and app development which is something I would like to explore as a career path.

Overall, I enjoyed the entire process of this project. It allowed me to think more about what the user wants, rather than what the client wants. It has also taught me new skills in prototyping that I am hoping to hone more in my career.