

# Screen Sketches

Group: 2\_UG\_1

Members: Aren Ashlock, Derek Brandt, Akash Setti, Jack Teller

Project: flushd

## Actors (User Types)

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1. General Users will be able to:
  - a. Look at a bathroom page
  - b. Leave a review
  - c. Reply to other reviews
  - d. Delete their account
2. Maintenance has the same privileges as Users. In addition, they will be able to:
  - a. Accept a job
  - b. Look at all of the jobs
3. Moderators have the same privileges as Users and Maintenance. In addition, they will be able to:
  - a. Create a bathroom
  - b. Create a job
  - c. Delete reviews and replies

## Non-Functional Requirements

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1. The User must not wait longer than 1s for any UI element to respond.
2. The application must support 30,000 (student population of Iowa State) people.
3. Each bathroom page must have a carousel of 3 images.
4. The replies for each review must be collapsable.
5. The information for the jobs in the job list should be collapsible.
6. Clicking on the overall rating for a bathroom will display the broken down rating.

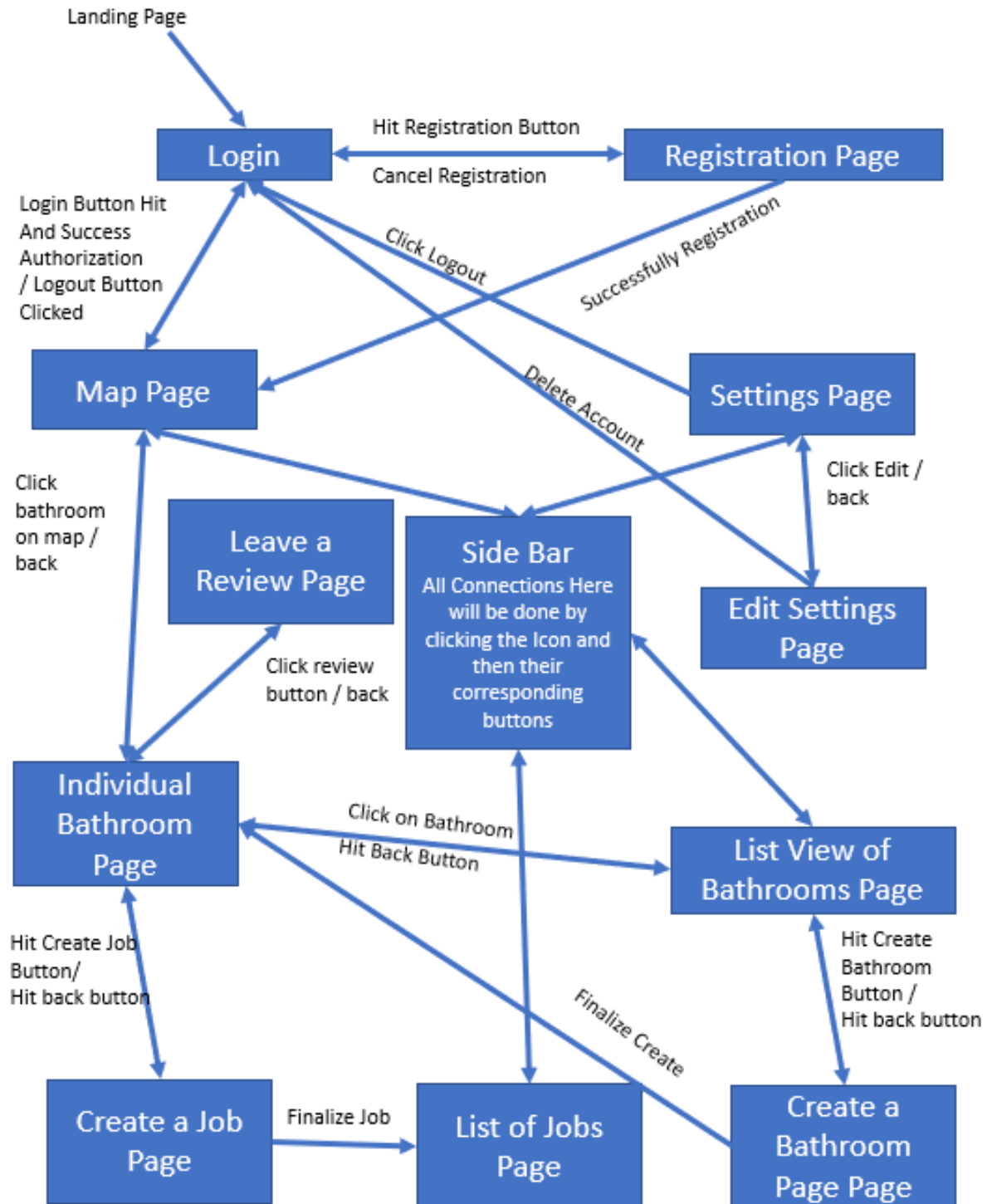
## Tables, Fields, and Relations

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- Table: Users
  - Fields:
    - User\_ID - Primary Key
    - Username
    - First Name
    - Last Name
    - Email
    - Encrypted Password
    - Active
    - Permissions Level
- Table: Bathrooms
  - Fields:
    - Bathroom\_ID - Primary Key
    - Building Name
    - Floor Number
    - Locational Description
    - Number of Stalls
    - Number of Urinals
    - Gender
    - Image URL
- Table: Jobs
  - Fields:
    - Job\_ID - Primary Key
    - User\_ID - Foreign Key
    - Bathroom\_ID - Foreign Key
    - Job Type
    - Severity
    - Description
    - Status
    - Date Posted
- Table: Reviews
  - Fields:
    - Review\_ID - Primary Key
    - User\_ID - Foreign Key
    - Bathroom\_ID - Foreign Key
    - Cleanliness Rating

- Privacy Rating
  - Smell Rating
  - Accessibility
  - Review Content
  - Date Posted
- Table: Comments
  - Fields:
    - Comment\_ID - Primary Key
    - User\_ID - Foreign Key
    - Review\_ID - Foreign Key
    - Content
    - Date Posted

## Screen Flow Diagram



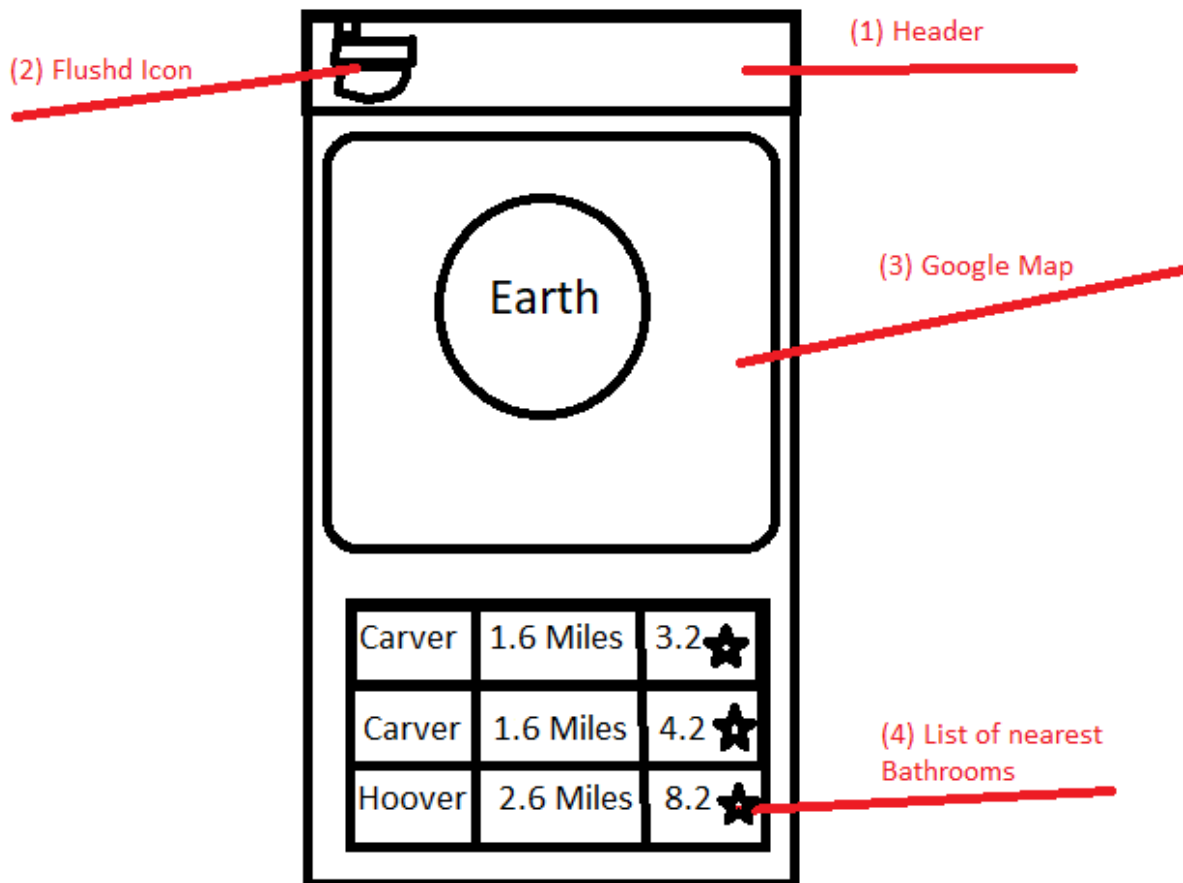


Figure 1 : Home / Map Page

The home page will be accessed after the user makes a successful login or registers an account for the first time. This page will allow all users to begin navigating available bathrooms. A "Google Map" widget will be present to allow the user to look for bathrooms on the map. They will be able to click on those bathrooms on the map to be navigated to that bathroom's page. The user will also have a list view showing the nearest bathrooms and their ratings.

A Header / Navigation Bar (1) will be at the top. Its sole purpose is to house the Flushd Icon (2). The Flushd Icon will act as the navigation button. Clicking on it will bring up a side menu. The Google Map (3) will allow users to find bathrooms and clicking on them would redirect them to that bathroom's individual page. The same idea goes for the List of nearest bathrooms (4). Clicking on one of these buttons will redirect the user to that bathroom's page, however scrolling down will load more bathrooms.

## "Individual Bathroom Page" Created by Derek Brandt

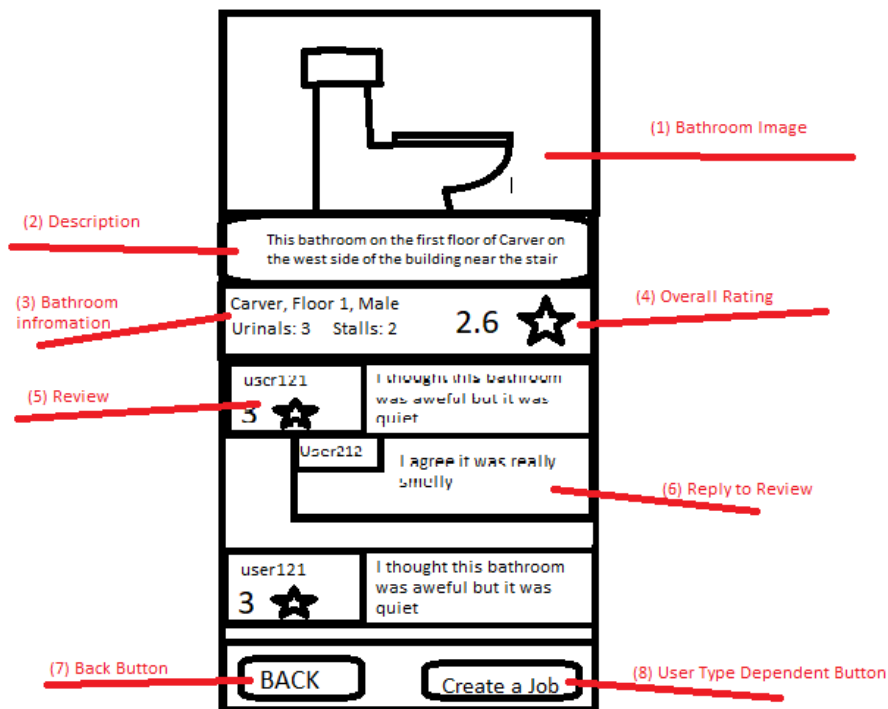


Figure 2) Individual Bathroom Screen

The individual bathroom screen can be accessed by either selecting a bathroom on the home page, or the bathroom list page, or after a moderator creates a bathroom, they will be redirected to that specific bathroom screen. This is the screen the users will see when viewing a bathroom's page. Here, they will be able to see all the information about a bathroom, like the gender, location, and rating. Depending on the type of the user, the user will be able to either leave a review or create a job for that bathroom.

The Bathroom Image (1) will be an image uploaded during the creation of a bathroom. The bathroom description (2) and bathroom information (3) will also be fields uploaded during the creation of the bathroom. The overall rating (4) will show the average rating over all reviews for that bathroom. All reviews will be shown in a list view (5) with their comments or replies (6) coming after each review. To be able to navigate backwards, the user can hit the back button (7). If the user is a general user or maintenance user, the bathroom will read "Leave Review". However, for the moderators, the button will read "Create Job".



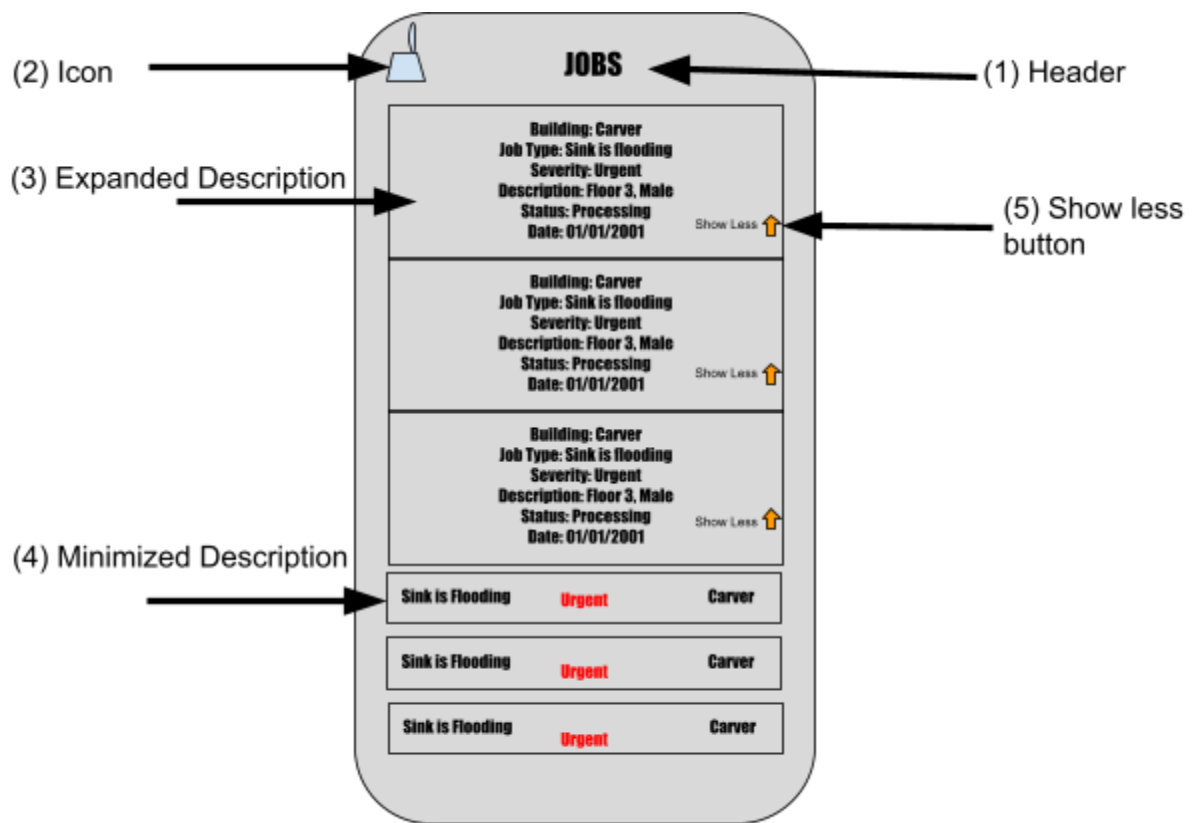
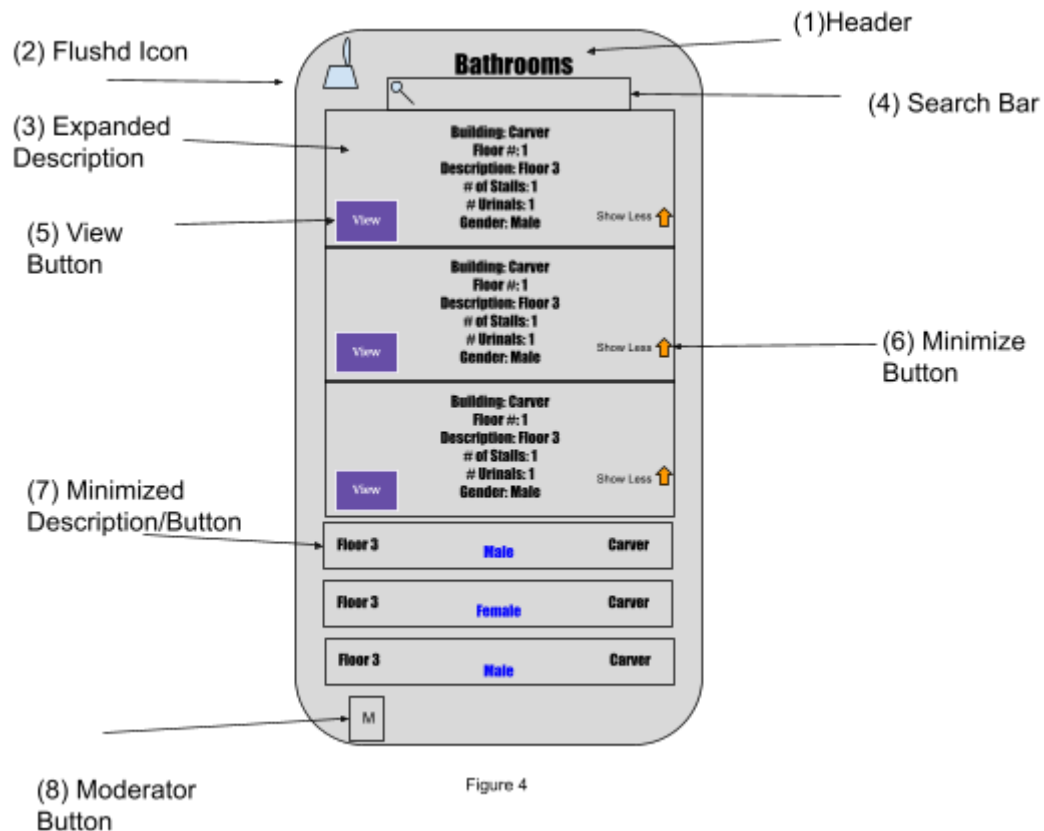


Figure 3

The list of jobs page can be accessed by the sidebar and the create jobs page. The screen above is what the user will see when they want to view all of the jobs. In this screen the user will be able to see the building, job type, severity, locational description, status, and posting date of the jobs.

The header of the screen(1) shows that the list of jobs is what is being displayed. The Flushd Icon(2) will act as a navigation bar and when pressed, it will bring up a slide menu. This button will also serve as a way to exit from this page. Every single job listed will be able to be viewed with an expanded and a minimized description. The expanded description(3) will allow the user to view the building, job type, severity, locational description, status, and posting date of the jobs. The minimized description(4) will be able to show the job type, severity, and building of the job. If the user wants to toggle between these two description options this is also possible. If the user wants to go from expanded to minimized description the user can press the show less button(5). If the user wants to show a larger description of the user can press the (4)Minimized Description that also serves its purpose as a button to show the expanded description.

## “List of Bathrooms Page” Created by Akash Setti



The bathroom list page will be able to be accessed from the original sidebar, individual bathroom page, and create bathroom page. The screen shown above is what the user will see when they want to see the list of bathrooms available. In this screen they will be able to see different information about many bathrooms including the building of the bathroom, the floor, number of stalls, number of urinals, and the affiliated gender of the bathroom.

The header of the screen(1) shows that the list of bathrooms is what is being displayed. The Flusd Icon(2) will act as a navigation bar and when pressed, it will bring up a slide menu. This is one way to exit. There are different types of bathroom descriptions. Every single bathroom listed will be able to be viewed in with an expanded description and a minimized description. The expanded description(3) will allow the user to view the building, floor, locational description, number of urinals, and the gender of the bathroom. The minimized description(7) will allow the user to see the floor, building, and gender of the bathroom. If the user wants to toggle between these two description options this is also possible. If the user wants to go from expanded to minimized description the user can press the minimize button(6). If the user wants to show a larger description of the user can press the (7)Minimized Description that also serves its purpose as a button to show the expanded description. If the user wants to look for a specific bathroom they can use the search bar(4) at the top of the screen. If the user wants to go to that specific bathroom page, they can press the view button(5) for that bathroom when in expanded description. This will direct the user to the individual bathroom page. The moderator button(8) at

the bottom of the page is shown for moderators only. When this button is clicked it will allow the user to create a bathroom, and this will direct the user to the create bathroom page.

### "Edit Settings Page" Created by Aren Ashlock

A hand-drawn diagram of a web form titled "Edit Settings Page". The form is enclosed in a rectangular border. At the top left is a back arrow icon labeled (1) Back Button. At the top right is a button labeled "Save Changes" labeled (8) Save Button. The form contains several input fields: "First name:" with the value "John" labeled (2) First name Field; "Last name:" with the value "Doe" labeled (3) Last name Field; "email:" with the value "johndoe@iastate.edu" labeled (4) Email Field; "username:" with the value "john\_doe" labeled (5) Username Field; and "password:" with the value "enter new password" labeled (6) New Password Field. At the bottom right is a red button labeled "DELETE ACCOUNT" labeled (7) Delete Account Button.

Figure 5: Edit Settings Page

To get to this page, you have to be on the settings page and click the button that says "edit." The main purpose of this screen is to allow all types of users to edit their information. The only information we collect is their first and last name, email, a unique username, and a unique password. In addition, they can delete their account from this page.

The back button (1) allows the user to cancel making changes to their account and go back to the settings page. The save button (8) saves the changes the user made to their account. The first name field (2), last name field (3), email field (4), and username field (5) will auto-populate with their previous entry. From there, the user can edit each field to be what they want. The new password field (6) prompts the user to enter a new password which will override their old one. Lastly, the delete account button (7) removes the user from the user list and deletes all of their information along with it.

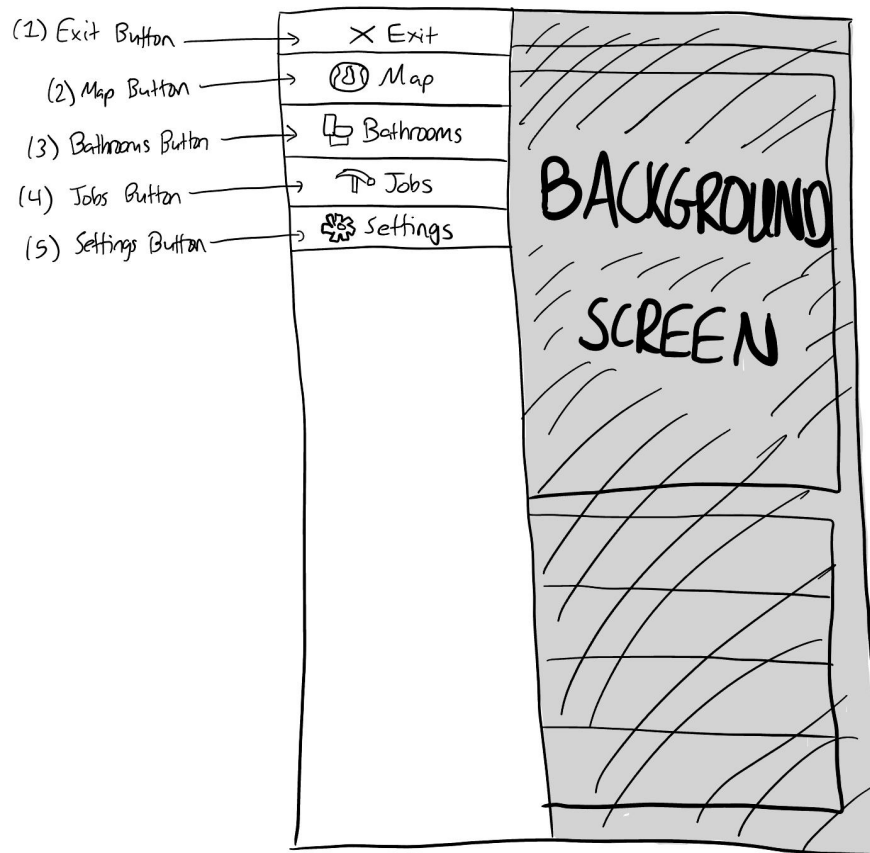


Figure 6: Sidebar Menu

On this screen, there are 4 screens you can select. If you are on any of these, you can click on the flushd icon and it will make this screen pop up. The purpose of this screen is to allow users to choose which screen they would like to access. This wouldn't be a whole new screen, but rather a sidebar menu that pops up after clicking on the button.

The exit button (1) would simply close the sidebar and have the user continue operating on the screen they were just on. The map button (2) would route the user to the map screen. The bathrooms button (3) would route the user to the page with the list of bathrooms. The jobs button (4) is only visible when the user type is either maintenance or moderator! Like the others, clicking on this would route the user to the page with the list of jobs. Lastly, the settings button (5) takes the user to the settings page.

## “Create Bathroom Page” Created by Jack Teller

The diagram shows a form titled "Create Bathroom Page" with the following components labeled with numbers in parentheses:

- (1) Instruction Textbox: A box containing the text "Enter parameters below:".
- (2) Building Name parameter: A text input field labeled "Building Name:".
- (3) Floor Number Parameter: A text input field labeled "Floor Number:".
- (4) Locational Description Parameter: A text input field labeled "Locational Description:".
- (5) Number of Stalls Parameter: A text input field labeled "Number of Stalls:".
- (6) Number of Urinals Parameter: A text input field labeled "Number of Urinals:".
- (7) Gender Parameter: A text input field labeled "Gender:".
- (8) Bathroom URL Parameter: A text input field labeled "Bathroom URL:".
- (9) Create Bathroom Button: A button labeled "Create Bathroom" located at the bottom of the form.

This screen can be accessed from the List of all bathrooms screen (page 10). There will be a button that takes you to this screen. This screen allows a moderator to create a bathroom. The moderator will input the required parameters and they will be sent and stored on the server. All the above parameters use hint text so the text disappears when clicked on. This newly created bathroom will be visible to all users.

(1) This is a simple textbox that tells the moderator to “Enter parameters below.” (2) This is a parameter that takes the name of the building or hall. For example “Carver.” (3) This is a parameter that takes the floor number the bathroom resides on. (4) This parameter takes a basic locational description of the bathrooms whereabouts. For example you might describe the location of a bathroom as “west side of the building near the stairs.” (5) This parameter takes the number of stalls in a bathroom. (6) This parameter takes the number of urinals in a bathroom. (7) This parameter takes the gender of the bathroom. (8) This parameter takes a URL of the image of the bathroom (no idea if it works like this). (9) This is a button that actually creates the bathroom. The inputted parameters are sent to the server to be stored. Upon creation of the bathroom the moderator is sent to the newly created bathroom page.

## "Create Job Page" Created by Jack Teller

The diagram shows a vertical form with the following elements:

- Enter Job Type Parameter: (1) Job Type Parameter
- Enter Severity Parameter: (2) Severity Parameter
- Enter Description Parameter: (3) Description Parameter
- Enter Status Parameter: (4) Status Parameter
- Calendar widget (5) Calendar widget Parameter
- Create Job (6) Create Job Button

There will be a button on the individual bathroom screen that takes you to this screen. This is listed as number eight on page eight. This screen allows a moderator to create a job. The moderator will input the required parameters and they will be sent and stored on the server. All the above parameters use hint text so the text disappears when clicked on. This newly created job will be visible to all users and can be viewed under an individual bathroom.

(1) This parameter takes the type of job. This could be things like "plumber" or "Janitor." This will ideally be a drop down with a list of possible options. (2) This parameter takes the severity of the job, this again will be a drop down with a variety of options, like urgent, etc. (3) This parameter will take the description of the job. (4) This parameter will take the status of the job, this will be another drop down with the options "Complete" and "Incomplete." (5) This parameter will take the date the job will be posted. I think it would cool if this used some kind of calendar widget where you can select the current date. No idea if this is possible, if not we could just have the moderator type the date. (6) This is the button that will actually create the job. Upon finalization the user will be sent to the list all jobs screen.

## "Leave a Bathroom Rating Page" Created by Aren Ashlock

The sketch shows a mobile app interface for leaving a bathroom rating. It includes a back button (1) in the top left. A header section (2) contains the text 'Carver, Floor 1, Male'. Below this is a large rectangular field (3) for a bathroom picture, containing a simple line drawing of a toilet. Three rating fields follow: 'Cleanliness' (4) with a dropdown showing '1', 'Privacy' (5) with a dropdown showing '1', and 'Smell' (6) with a dropdown showing '2'. Below these is an accessibility field (7) with the text 'Is the bathroom handicap accessible?' and a 'Yes' dropdown. A large comment field (8) is below that. At the bottom is a 'Post Review' button (9).

(1) Back Button

(2) Bathroom Information

(3) Bathroom Picture

(4) Smell Rating

(5) Privacy Rating

(6) Cleanliness Rating

(7) Accessibility Field

(8) Comment Field

(9) Post Review Button

Figure 9: Leave a Bathroom Rating Page

On the page for an individual bathroom, there is a button that any user can click to leave a rating which will redirect them to this page. As the name suggests, the point of this screen is to allow users to leave ratings for each bathroom (which is the main point of the app). It collects numerical ratings between 1-5 on the fields off cleanliness, privacy, and smell. Additionally, users can give some context for their ratings (like a description) and note whether the bathroom is easily accessible for handicapped people or not.

The back button (1) allows the user to cancel making a review and go back to the individual bathroom's page. The bathroom information field (2) and the bathroom image field (3) shows the building name, floor, gender, and picture of bathroom to ensure the user is rating the correct bathroom. The smell rating (4), privacy rating (5), and cleanliness rating (6), have dropdown selectors that allow users to choose an integer between 1 and 5 to rate the categories. The accessibility field (7) let's the user indicate if the bathroom is accessible or not. The comment field (8) allows the user to add a comment to their rating. Lastly, the post review button (9) posts the review to the bathroom.