

Milestone 3: High-Fidelity Prototyping

Summary	
Project Title:	Care Finder Canada: Healthcare Facility Mapping Platform
Version:	V0
Group:	11
How to Run?	In the project repo, there is a folder called <i>high_fidelity_prototype</i> . Inside this folder, there is a file called <i>index.html</i> . Double-clicking on this file will launch the application.
Description:	<p>Project Summary:</p> <p>CareFinder is a specialized web-based platform that enables users across Canada to locate healthcare facilities, including hospitals, nursing homes, and ambulatory health services, with ease. Key features include an interactive map with search and filter options, detailed facility profiles, and an adaptable interface with dark mode for visual clarity. Users can filter facilities by location, type, and services, explore detailed information about each facility, and view the distribution of facilities across Canada.</p> <p>Problem Statement and Motivation:</p> <p>While general map services like Google Maps offer basic location information, CareFinder is uniquely designed to address the healthcare needs of Canadian residents, immigrants, healthcare professionals, caregivers, and tourists seeking medical facilities. The motivation behind CareFinder is to provide a focused, efficient tool for finding healthcare services by specific criteria such as facility type and specialized services—details often buried or inconsistent in broader mapping platforms. CareFinder solves the problem of healthcare access by providing an organized, filterable, and user-friendly interface dedicated solely to healthcare, empowering users to make informed choices about the facilities that meet their needs.</p>
Known Bugs	<ol style="list-style-type: none">Potential Missing Information Display: Some facility addresses appear incomplete in the facility details, affecting the user's ability to locate the facility. This is a data-related problem and contact phone numbers are also missing.Filter Reset on Page Refresh: If the page is refreshed, all applied filters reset to default, requiring the user to reapply filters after each refresh.Fly-To Animation Delay: When a user selects a location from the search bar, the fly-to animation occasionally lags after user applied filters, causing a delayed response in directing the user to the chosen location.
Technology	ReactJS, CSS, HTML (no backend is involved) Third party library used: react-toastify, react-spinner, OpenStreetMap, react-bootstrap, react-leaflet, react-icons, reactjs-popup, leaflet-draw...
Dataset Link	The Open Database of Healthcare Facilities

Horizontal Prototypes

Login is one of the three main features. We selected it as a horizontal prototype, along with user settings and real-time navigation. We decided to list them all here.

1. Login Feature:

CareFinder: Mapping Canadian Healthcare Facilities



Login

Username
admin

Password
.....

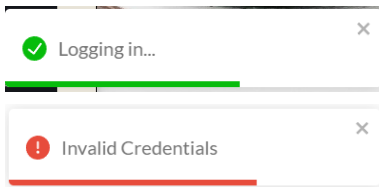
☐ I agree to the Terms of Service and Privacy Policy.

Login

☐ Remember me

[Forgot Password?](#) [Sign Up](#)

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Login Credentials:

- **Username:** admin
- **Password:** 123456

Notes on Functionality:

- The **Forgot Password** and **Sign-Up** icons are currently non-functional.
- The **Username** and **Password** fields are hardcoded.
- **Unauthorized Access:** If a user attempts to visit the application URL without logging in, they will be redirected to the login page.
- **Persistent Login:** After a successful login, users will not need to log in again unless they log out.
- Upon entering valid credentials, the user is directed to the application's home page. If incorrect credentials are entered, a pop-up message saying "Invalid credentials" will appear, prompting the user to re-enter the correct details.
- On the home page, users can access information about the app, including instructions for use, key features, FAQs, and the Terms and Conditions. A **Terms and Conditions Checkbox** is provided, which must be checked for the **Proceed** button to become active.

2. User Settings

Settings

Auto-loading all facilities when the map initially renders: ☐

Auto-directs to the map page after login: ☐

Remind me if data or features are updated: ☐

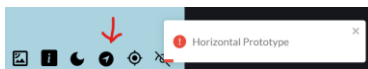
Max # of facilities to be displayed on viewport:

[Save Changes](#)

On the left navigation bar, there is a button labeled **Settings** where users can adjust how the results are displayed and save their changes. This is a horizontal prototype. The following features are not fully functional:

- Auto-loading all facilities when the map initially renders.
- Auto-directs to the map page after login.
- Remind me if data or features are updated.
- Max number of facilities to be displayed on viewport.

3. Real-time Navigation

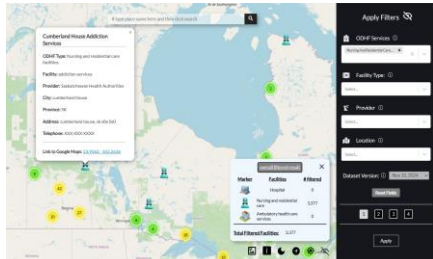


- Feedback from an international student and a local resident suggested adding traffic-based route suggestions and estimated time of arrival (ETA) for emergencies. However, more time is required to fully implement this feature.
- The real-time navigation icon is the only non-functional icon displayed in the list of icons on the left. This feature is intended to allow users to select a destination and receive directions, like the functionality provided by Google Maps.

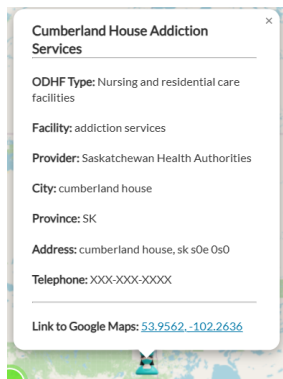
Vertical Prototypes

Vertical prototypes include Geographic Search, Application Filtering and Summary Prompts, Dark Mode, Satellite Mode, Current Location Icon, User Feedback, and Issue Report.

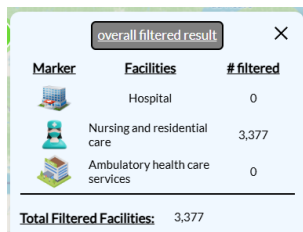
1. Application Filtering and summary prompts



Multi-level filters (on the right)



Facility Details



Summary Box
(information icon)

Main Page (Map 2D) Overview:

- This feature was suggested by various users interviewed, including international students, residents, tourists, and healthcare assistants.
- Facility Search & Filters:** Users can search for healthcare facilities by applying filters on the right side of the map. Available filters include:
 - ODHF Services**
 - Facility Type**
 - Provider**
 - Location**
- Multi-Level Filters:**
 - Each filter offers a dropdown with multiple options, allowing users to select several criteria as needed.
 - An information icon (i) next to each filter provides definitions when hovered over.
- Applying Filters:**
 - Once filters are selected, clicking the **Apply** button displays the results on the map.
- Clusters and Map Interaction:**
 - Facilities are grouped into numbered clusters represented by circles.
 - Zooming in breaks clusters into individual facilities, while zooming out re-forms clusters.
 - Hovering over a cluster highlights the coverage area of facilities within it.
 - Users can pan and zoom in or out on the map to explore different areas and facility groupings.
- Facility Details:** Clicking an individual facility marker reveals detailed information about the selected facility.
- Summary Box:** Located in the bottom right corner, this box organizes the filtered data into four categories: hospitals, nursing and residential care facilities, ambulatory health care facilities, and other types.

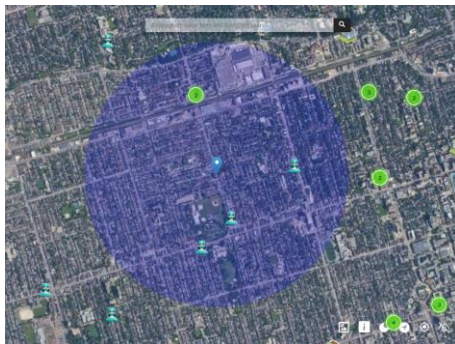
2. Geographic Search



This feature connects with the OpenStreetMap API at <https://nominatim.openstreetmap.org/search> to retrieve location suggestions.

- Results appear in a dropdown list, allowing the user to select a location. Once a location is selected, a smooth fly-to animation directs the map to the chosen destination.
- Users can type any location into the search bar to check for nearby medical facilities, which are plotted on the map using distinct icons based on facility type.

3. Current Location and Satellite



- The app also supports a satellite view. A toggle button, located as the first icon on the toolbar in the bottom right corner, allows users to switch between street view and satellite view.
- The current location icon is the second-to-last icon in the toolbar. Please note that this feature may require location permissions from your browser, so be sure to grant access if prompted.

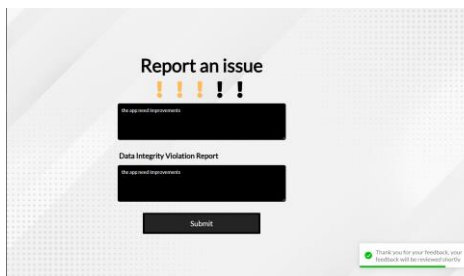
4. Dark Mode



Dark mode is represented by the crescent moon icon, located at the bottom right corner as the fourth icon in the list. It is linked to the filters applied by the user.

- Displays the distribution of filtered healthcare facilities across Canada, providing users with an overview like a heatmap.
- Brighter the color, indicates more facilities.
- Toggling the dark mode icon switches between the standard view and dark mode.

5. User Feedback



- If the user has feedback to share with the admin, such as issues they encountered or features that did not work correctly, they can select the **Issue Report** button from the menu bar. The user can type their feedback in the text box, with a preview of the report displayed below.
- Once the user clicks the **Submit** button, their feedback is saved and sent to the admin, with a success message appearing in a pop-up.