

The backend PHP script handles the POST request, calls the getGeoLocation() function to fetch geolocation data from Nominatim API, and returns the locations.

The React frontend consists of a form where users can input the 'from' and 'to' locations. Upon form submission, it sends a POST request to the backend and displays the returned direction

NEED:

Nominatim: <https://nominatim.org/release-docs/latest/api/Overview/>

- Will help convert Longitude and Latitude to physical building that API will assume

OSM2Indoor: OSM2Indoor is a Python library developed for extracting indoor mapping information from OpenStreetMap data. It allows developers to parse OSM files and extract indoor features such as rooms, hallways, and dead ends.

- Based of the following website:

<https://indoorequal.org/#map=7.25/42.755/-76.897>

- There barely anything for Buffalo let alone UB so we would need to manually go through the process creating indoor planning ourselves

IMDF (Indoor Mapping Data Format) Tools: IMDF is a standardized format for indoor mapping data, supported by Apple.

- https://register.apple.com/resources/indoor/program/additional_resources

- Would need to manually convert based on the steps below:

- Physical blueprint is in an image format, need want to convert it to a vector format (such as SVG) for easier manipulation and scaling
- Use vector graphics editor or specialized mapping software to digitize the blueprint. This involves tracing the walls, doors, windows, and dead ends all throughout the building

Based on the Lockwood Blueprints for what it is, we would all collectively HAVE to learn how to use GIS (Geographic Information Systems) or CAD (Computer-Aided Design) software due to the fact there aren't services at a consumer level that can convert a blueprint to a virtual layout

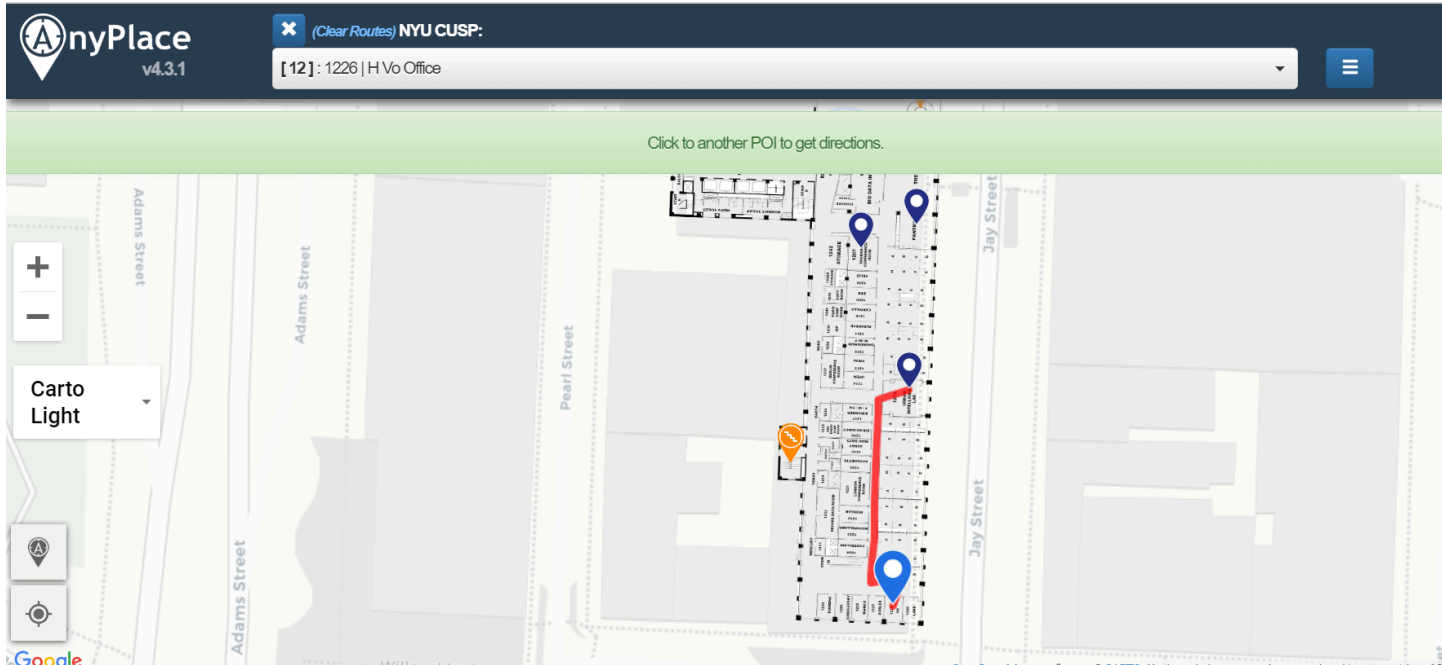
Useful information: Axios API, lets developers make requests to either their own or a third-party server to fetch data

- GET , POST , PUT/PATCH , and DELETE

This has been done one already for a select few rooms at another campus:

- https://clement-lagrange.github.io/osmtools-indoor/#lat=51.09439&lon=17.02001&z=19&id_building=2236522&id_level=2236521

Another Possible API: <https://2metz.fr/blog/indoorequal-openstreetmap-indoor-viewer/>
<https://indoorequal.org/#map=14.92/42.85127/-78.79076>



https://www.youtube.com/watch?v=dIVxcO_5Wbg&t=91s

<https://ap.cs.ucy.ac.cy/viewer/>

We can use the API above and have it so where we possibly could do it ourselves, however, after messing around with it online for about 20 minutes, it does appear to not be functioning anymore.

People have allegedly already created floor plans for capen but when trying to look at it, this is the result

