



# Final project proposal

By

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## What place for homeless in Covid-19?

### “HOME for HOMEless”, a crowdsourcing map for Lomé, Togo (West Africa).

“Stay home!” is currently the strongest catch phrase for confinement to fight the Covid-19 pandemic. But how do you respect it when you're homeless? Our platform helps to solve this equation by starting from the city of Lomé in Togo, by locating, analyzing and visualizing data and by allowing those who can help protect homeless people because they are indeed one of the most vulnerable strata of the population .

“International human rights law recognizes everyone’s right to an adequate standard of living, including adequate housing. Despite the central place of this right within the global legal system, well over a billion people are not adequately housed. Millions around the world live in life- or health-threatening conditions ...”. (UN Habitat, 2014). Therefore, living in decent and dignified housing is a basic human right recognized worldwide.

For a few months, the whole earth has been in crisis, hit by a pandemic destabilizing all socio-cultural systems or economic and geopolitical forecasts. Measures have been taken to keep the population as far as possible confined to the home, to reduce the rate of spread of the disease. But a fringe of the population, the homeless, despite being among the people most exposed to all calamities, is not given priority or necessarily considered in these control measures. This makes them more fragile, and even potential rapid vectors of the virus. (Article Times). It is this reflection that led us to the question: how to contribute to the protection of the homeless in sensitive times? We chose to start with Lomé, the city that we know best.

Lomé, capital of Togo, is a city of more than 1 million inhabitants, on the West African Atlantic coast. This multi-purpose city and regional economic hub is not immune to the covid-19 pandemic, and we have yet to find a systematic study yet done on the homeless in Lomé. This is how we propose to create a participative web map platform for collecting geolocation data, evolving spatial studies of homeless people conditions in the city, site locations that can serve as reception camps for housing emergencies for homeless, but also publication and reception of any initiatives for them. “Home for Homeless” objective is to help homeless in Lomé reach better living conditions especially in exceptional periods like those which we live.

| Technology         | How be used  |
|--------------------|--|
| GitHub             | To create the repository for the website index html and all the files I will use during the project like jpg, geojson, CSV, pdf, etc.  |
| HTML+CSS+JS        | To make the website visible online, well structured, and nice to see   |
| Leafet, plugins    | To create my Lomé map with the right location, and elements like layers control, important infrastructures markers, legends and use the plugins to add shapefiles to the map and permit to users to add data to the map. |
| MapBox             | To create a basemap and map tile layers and customize it with the Mapbox Studio Style tool   |
| GeoJSON.io         | To draw and create geojson files for Lomé global homelessness areas  |
| geojsonlint        | To validate my geojson files I will create   |
| Carto              | To create the animated heat map of Lomé population CSV   |
| Beautifyer.io      | To clean my final the code   |
| Geolocation        | To get the geolocation of the user’s device  |
| leaflet-providers  | For my basemaps  |
| HTML Form Elements | To create buttons and forms for the user to interact with the map  |

| Data  | Format      | Ready for use/Created/Converted? | From what to what/Tools         | Source links/documents/myself   |
|---|-------------|----------------------------------|---------------------------------|---|
| Lomé population by district                         | CSV         | To be Converted                  | From Shp to CSV with ArcGIS Pro | Togo National Direction of Cartography. (2016). PGCIT Project (Got by email from a colleague there).  |
| Lomé districts                                      | Shp         | Ready for use                    | -                               | Togo National Direction of Cartography. (2016). PGCIT Project. (Got by email from a colleague there).   |
| Lomé important roads                                | Shp         | Ready for use                    | -                               | Togo National Direction of Cartography. (2016). PGCIT Project. (Got by email from a colleague there).   |
| Lomé green espaces                                  | Shp         | Ready for use                    | -                               | Togo National Direction of Cartography. (2016). PGCIT Project. (Got by email from a colleague there).   |
| Global homeless areas                               | geojson     | To be created                    | -                               | My analysis   |
| Possible sites for urgent camps for homeless people | geojson     | To be created                    | -                               | My analysis   |
| Mapbox tile layers                                  | tile layers | Ready for use                    | -                               | <a href="https://www.mapbox.com/">https://www.mapbox.com/</a>   |
| Esri World Imagery                                  | tile layers | Ready for use                    | -                               | <a href="https://leaflet-extras.github.io/leaflet-providers/preview/">https://leaflet-extras.github.io/leaflet-providers/preview/</a> - Esri_WorldImagery |
| Carto DB Positron                                   | tile layers | Ready for use                    | -                               | <a href="https://leaflet-extras.github.io/leaflet-providers/preview/">https://leaflet-extras.github.io/leaflet-providers/preview/</a> - openstreetmap.org |

The challenges we find in this project are twofold when it comes to exercise. The first is the availability of data, because Africa in general is still building databases that are not as easily accessible as in western countries. Compared to other English-speaking countries and mainly East African, digital geospatial data, even if it exists, is not yet fully open in Togo. We will therefore have to produce them ourselves, from the documents we have.

The second challenge is the code to write to make the platform participatory, so that each citizen can inform new cases of homelessness that they will have located on the territory. Especially at this level I think I need the most help from Instructor Bailey Hanson, to help me get there.

As an urban architect, we intend to continue this project beyond the academic framework, by offering emergency accommodation to homeless people located in Lomé, in collaboration with the government. This is where a third challenge arises is rather for the medium term of the project, which is to extend the platform and promote it.

#### **Links to describe similar objectives and function of the project:**

<https://hkqi.mysocialpinpoint.com/johnston-thrive-2040-plan-map#/>

<https://www.king5.com/article/news/health/coronavirus/seattle-fast-tracks-tiny-house-village-in-response-to-covid-19-outbreak/281-e77f24bf-e747-4459-a794-cf70e16dd978>