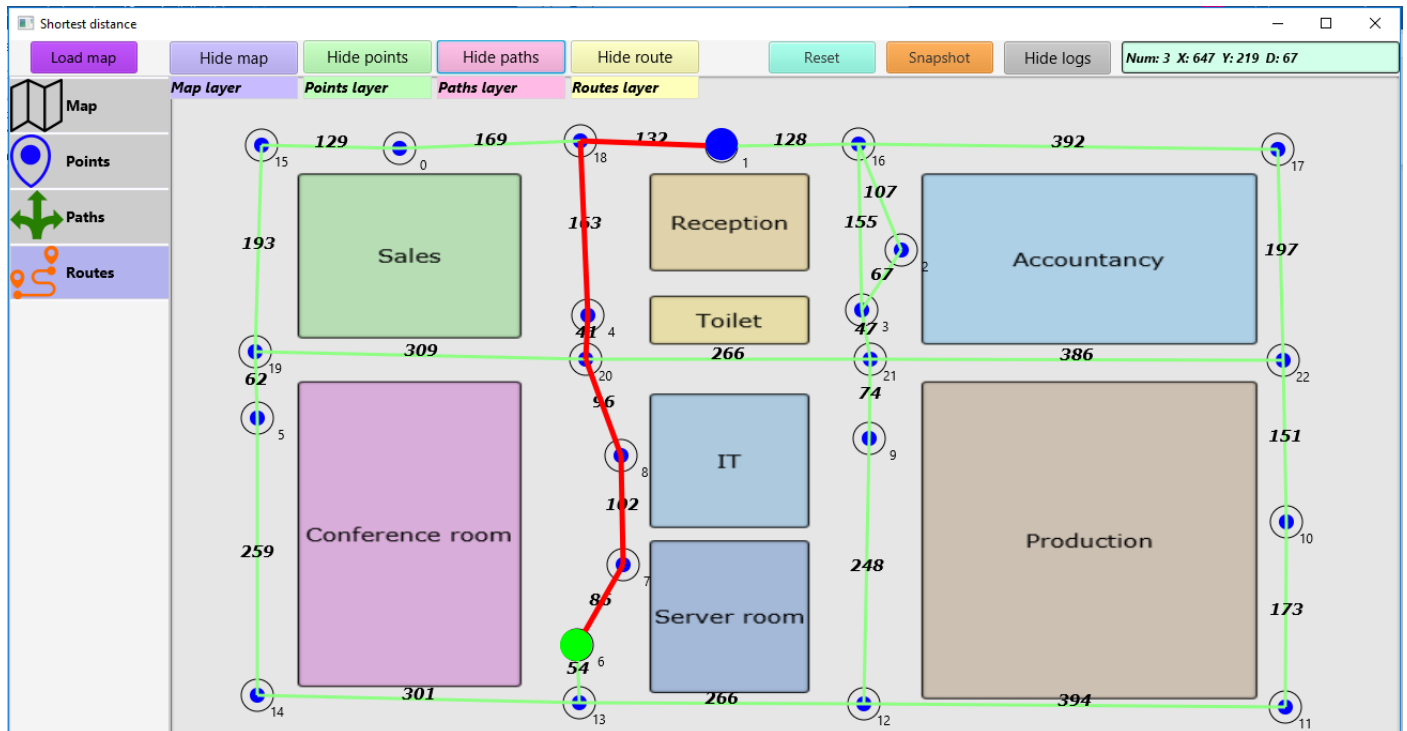


Shortest distance



You can show the shortest distance between 2 points on a graph with this implementation of Dijkstra's shortest distance algorithm.

User interface

The user interface consists of 4 tabs: map, points, paths and routes. Each tab pane (panel) is transparent and can be hidden or shown using the toggle buttons.

Map

With the "Load map" button you can load a map (which is any image file with the *.jpg or *.png extension) in the map tab pane. This image serves as the backdrop for the other panes.

Points

Click on the points tab. On the points pane you can click with the left mouse button to draw a point. The blue points are numbered from 0 to 999. You can place a point anywhere you like or you can align them according to the backdrop map (if there is one).

Paths

Click on the paths tab to indicate the paths. To draw the paths between the points you have to click on the first point and click again on the second point. A green line will be drawn between these 2 points. In the middle of the line you can read the distance in pixels. You can repeat this for all the points: click on the first point and then on the second point.

Routes

Click on the routes tab. Click on the starting point and a blue ball will appear on that point. It can be any point in the graph. Click on the endpoint and a green ball will appear on the point. After clicking on the endpoint the shortest distance from the starting point to the

endpoint is indicated with a red line. If you click on the routes tab again then the route is removed and you can click again to indicate the starting point and the endpoint.

Snapshots

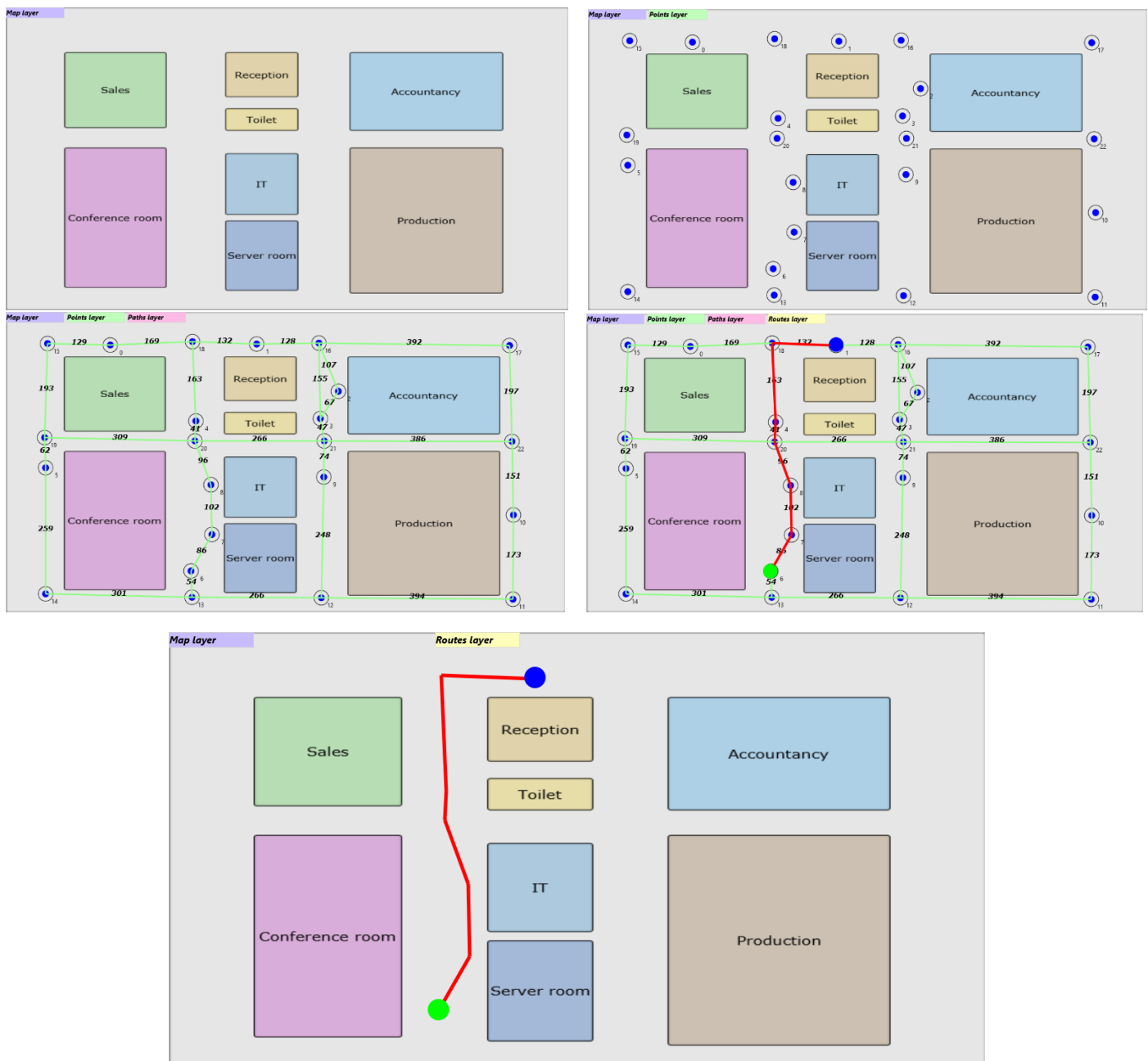
You can click on the snapshot button any time during the process of preparing the graph. The content of the tab panes is used to create an image (*.png) that you can save. This way you can create an image for each route that you indicated.

Logs

You can toggle between hiding and showing the logs textarea with the button next to the light blue paths status label. This is just a programmers reference. Hide the button for end users.

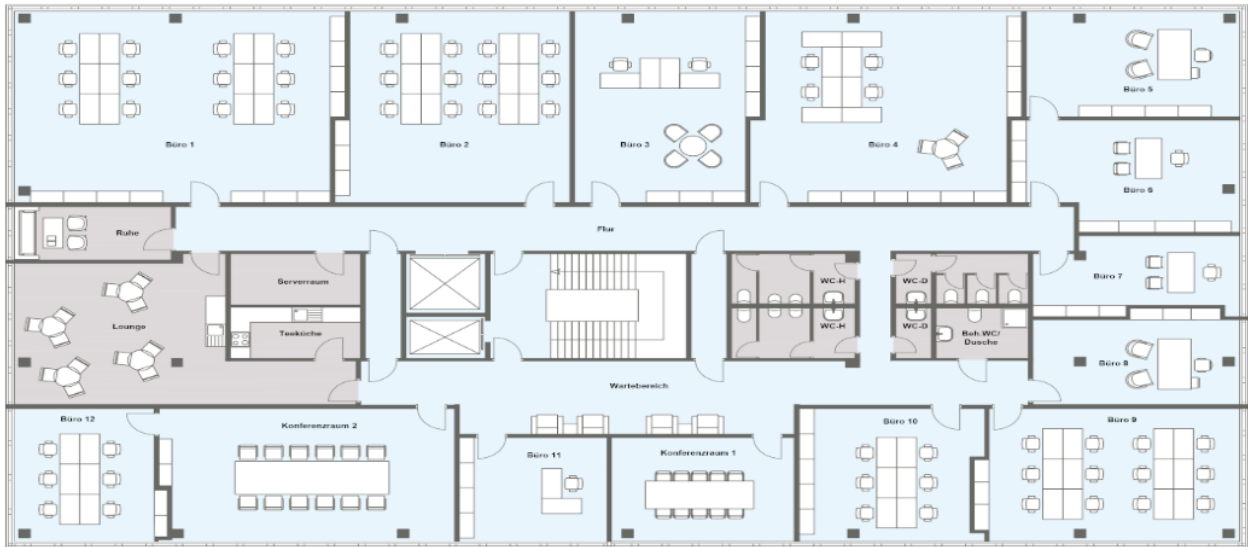
Examples

A custom designed floorplan.



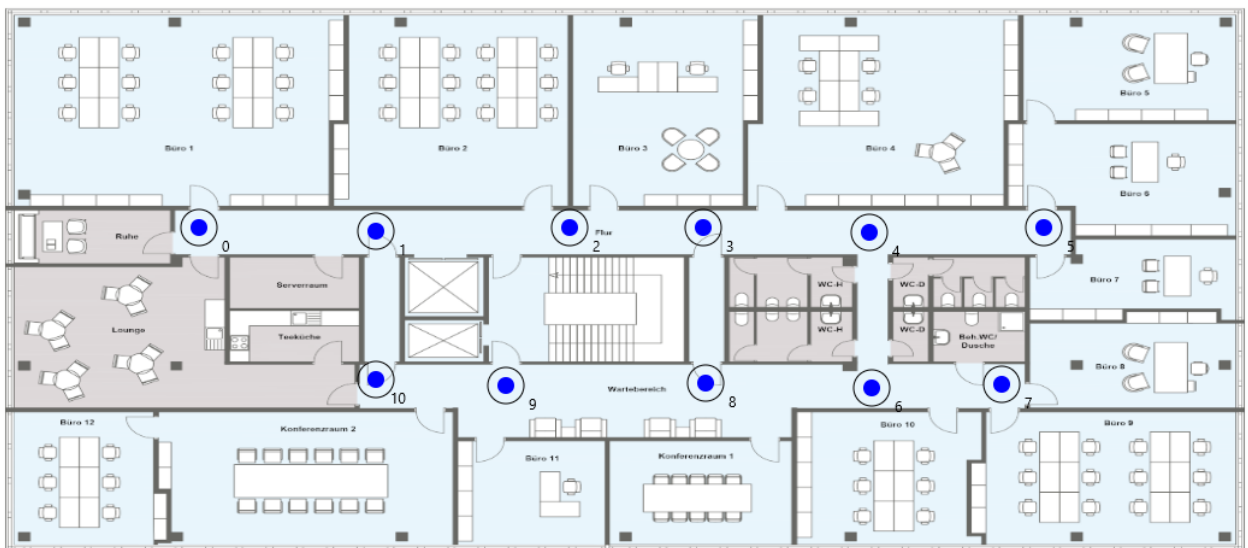
An existing office

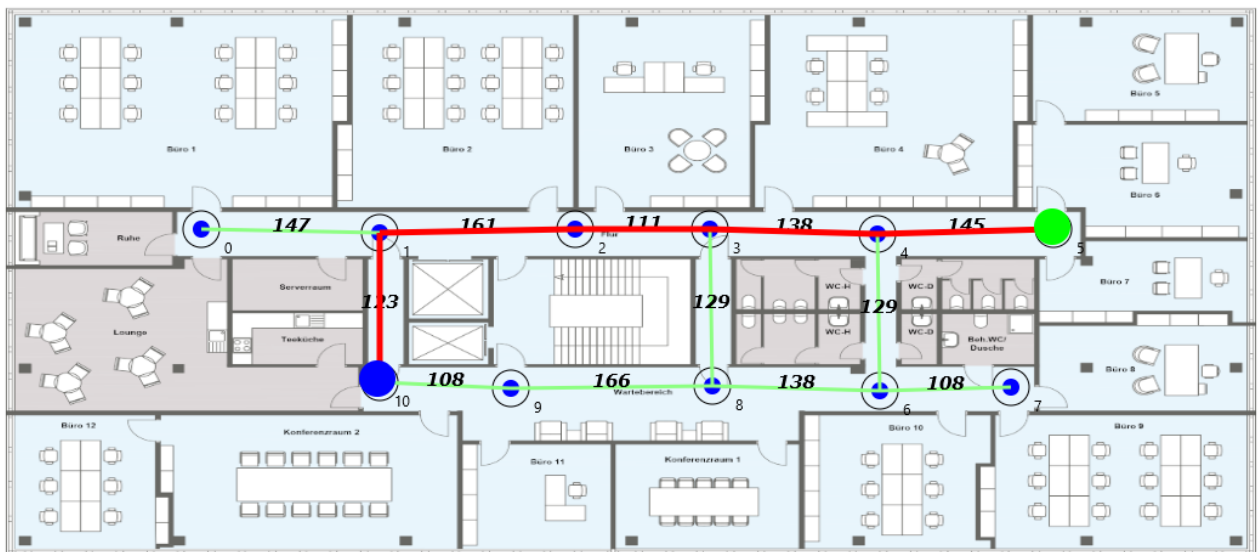
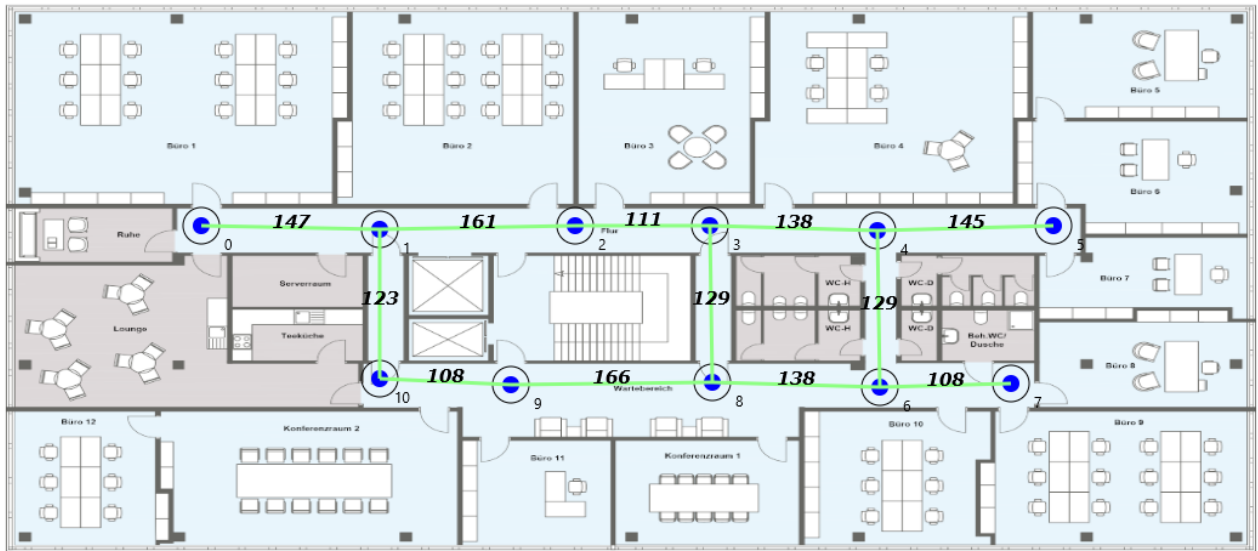
Map layer



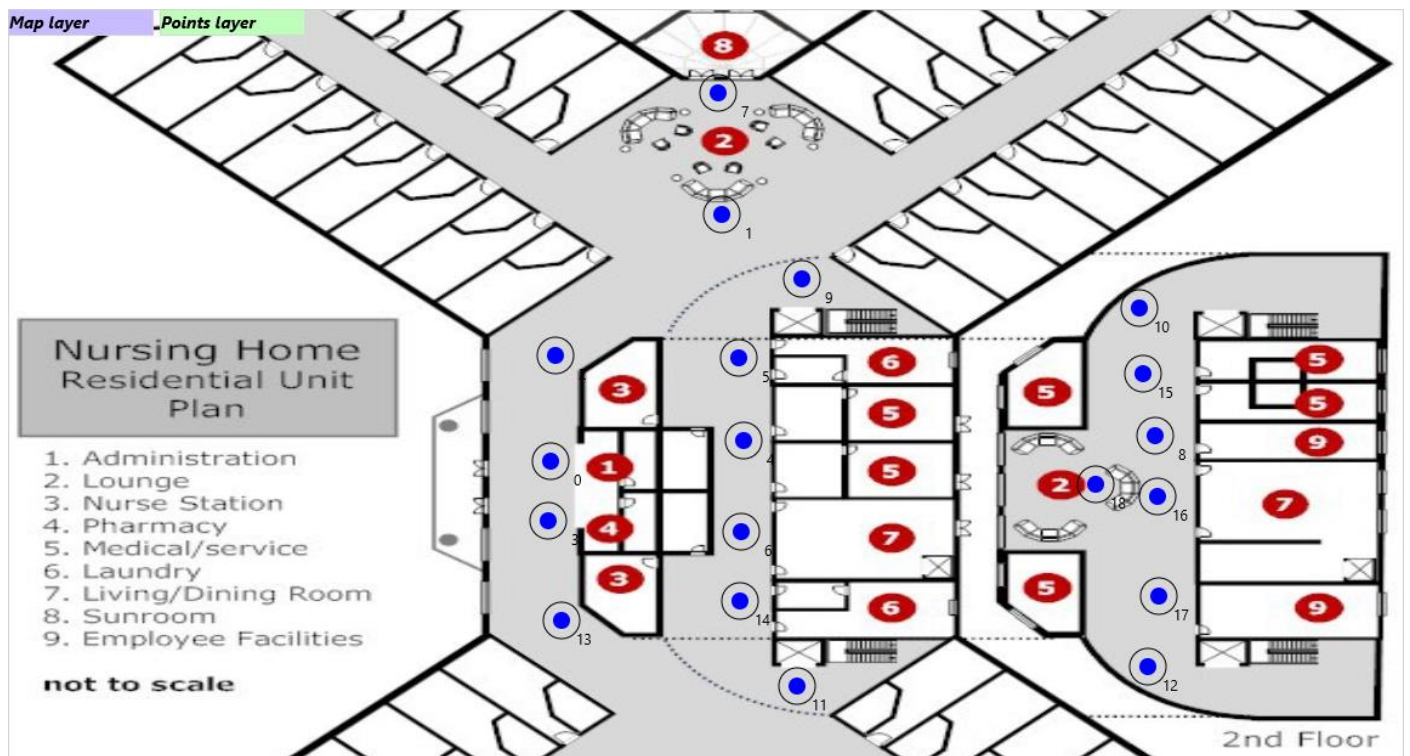
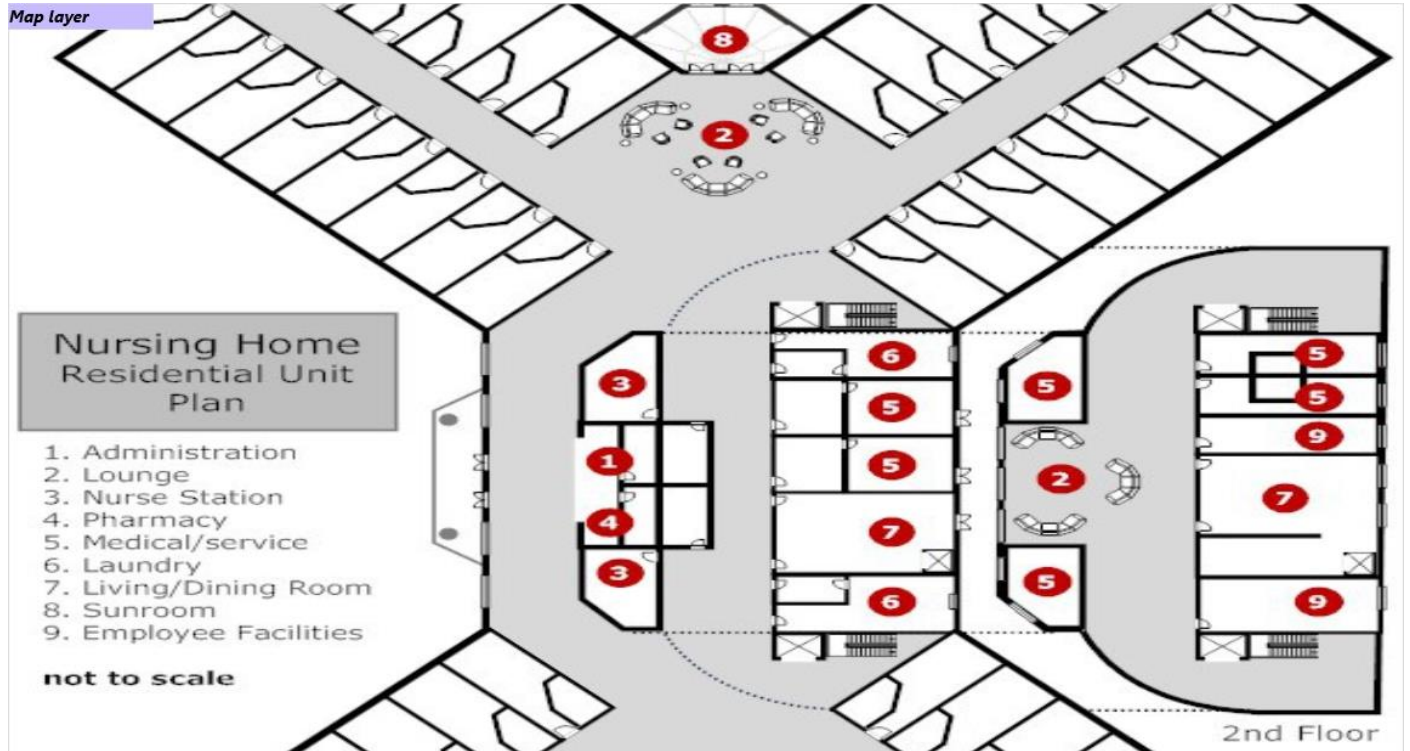
Map layer

Points layer





A nursing home



Map layer

Routes layer

Nursing Home Residential Unit Plan

- 1. Administration
- 2. Lounge
- 3. Nurse Station
- 4. Pharmacy
- 5. Medical/service
- 6. Laundry
- 7. Living/Dining Room
- 8. Sunroom
- 9. Employee Facilities

not to scale

2nd Floor

Map layer

Routes layer

Nursing Home Residential Unit Plan

- 1. Administration
- 2. Lounge
- 3. Nurse Station
- 4. Pharmacy
- 5. Medical/service
- 6. Laundry
- 7. Living/Dining Room
- 8. Sunroom
- 9. Employee Facilities

not to scale

2nd Floor

