Description:

This is a photo I took. The aim is to identify the name of the building in the background of this image. This is an initially easy-looking CTF that is in fact very complex. The flag is in the format `SECURI-TAY{LOCATION}`

Solution:

The image contains very little identifiable information. No signs. There's a vehicle, but without the VIN attempts at ascertaining relevant information will prove fruitless. You can access service history but not the locations it was serviced at via the numberplate. The tax disc is useless. Geospy will not give the correct answer. The information we have from the image:

- From the numberplate "OP" it tells us the vehicle was registered in Oxford.
- The general area looks like a city, so maybe London. The fox also implies this.

From here, we employ https://overpass-turbo.eu/ - this allows us to create a query based on the information we can see.

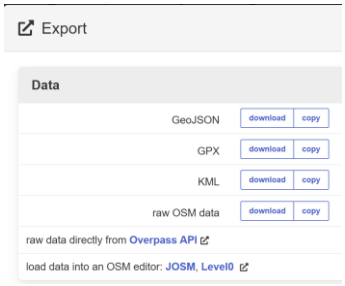
- Asphalt Road
- Parking on both sides
- Lit with streetlamps
- No cycle paths
- Lots of trees nearby
- Trees have broad leaves (as opposed to needles etc)
- Nearby building is apartment/multiple occupancy

Which becomes the following query in Overpass (Other queries will give you similar output – this is one example that will work) – There are a LOT of potential pitfalls with this though:

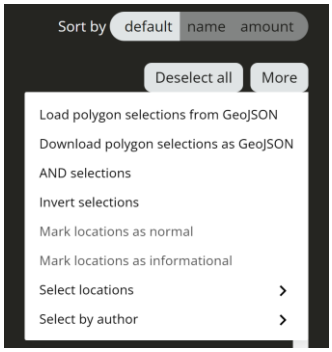
```
[out:json][timeout:25];
//London
area["name"="London"]->.searchArea;
//Road
nwr["highway"]["surface"="asphalt"]["lit"="yes"]["cycleway:both"="no"]["parking:both"="lane"
](area.searchArea);
//Broad Leaves near roads
nwr["natural"="tree"]["leaf_type"="broadleaved"](around:30)(area.searchArea);
//Apartments near these places
nwr["building"="apartments"](around:30)(area.searchArea);
out geom;
```

This, when ran, will give a few hotspot areas.

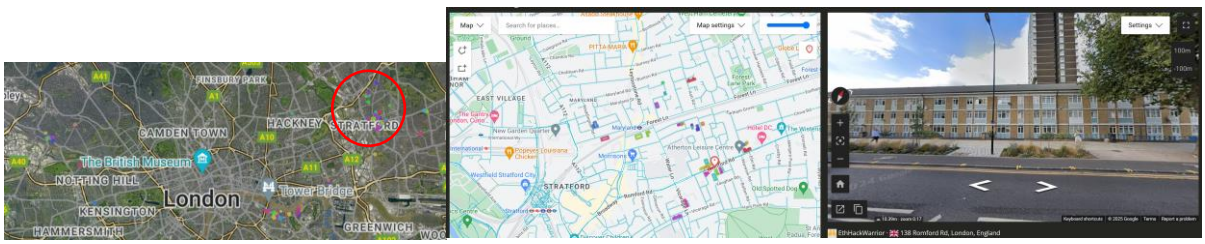
We could now use streetview to view these areas individually to find similar architecture – but for expediency the best tool is https://map-making.app/ as we can then export the locations directly from Overpass as a GeoJSON



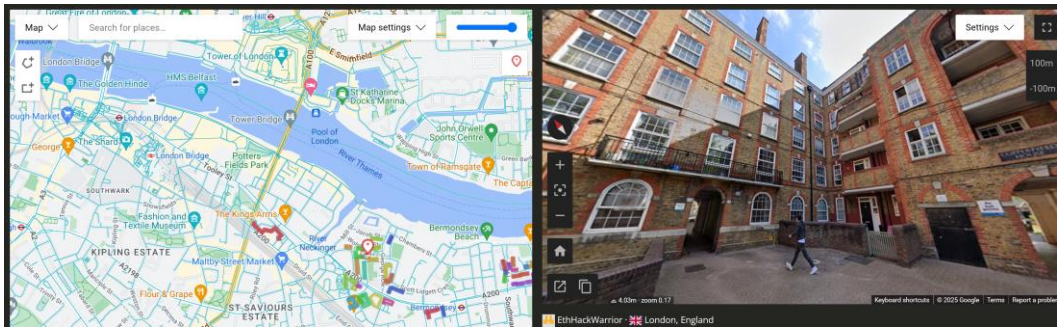
Then import as a GeoJSON into map-maker



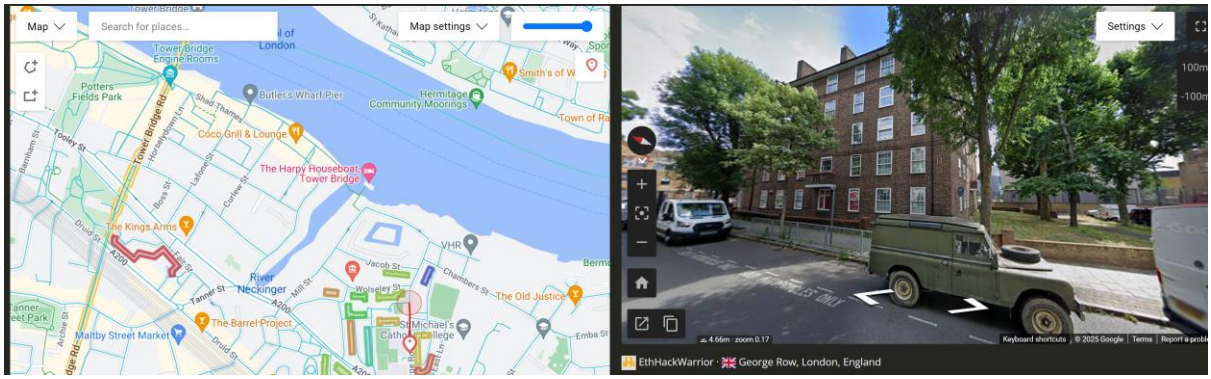
From this, we can quickly look at the areas and see that the southern one has an obvious architectural similarity (it is also the densest grouping). See the rightmost grouping below, clearly incorrect and does not match the overall building style.



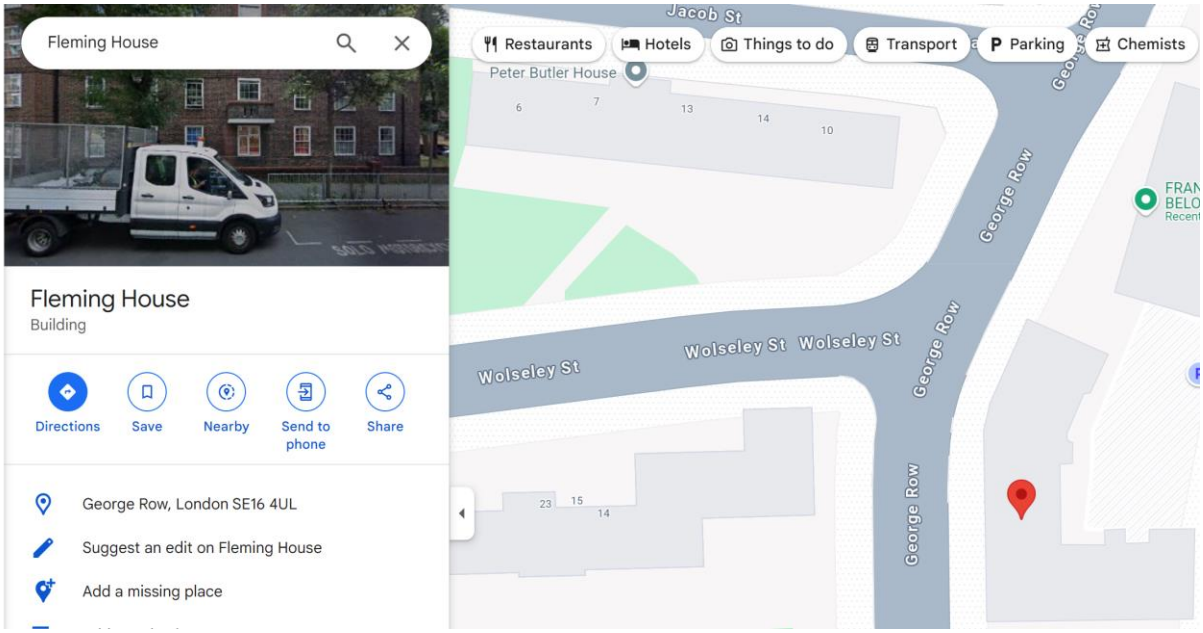
Compared to the southernmost grouping below, which is clearly the right area.



Scanning this area enough will reveal this. The same land rover in front of the same building.



So we can then find this building in google maps and double click on it to get the name:



Flag

As seen, the flag is therefore:

```
SECURI-TAY{Fleming House}
```