Introduction: Business Problem ¶

These days we deal with coronavirus and fast intervention is quite important. We want to show the nearest hospital to a coronavirus patient so in this way they can intervene faster to the patient. And prevent to spread it much more because of that patient. So our business problem is briefly to direct the patient to the nearest hospital. In our project we will look at the patients and hospitals in Istanbul.

1. Istanbul map.

Data

In introduction section we specified the problem that we will solve. The problem was to find the coronavirus patients' location first. After finding the patients, showing them the nearest hospital to go. So for this we need patients' locations and hospitals' locations. We can get hospitals' locations from Foursquare location data and we will use this data to direct the patient to the nearest hospital. But the data that we will use will be unique for each patient.

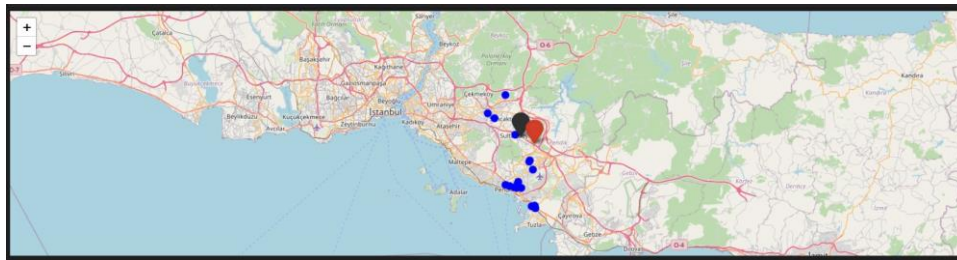|	Hospital Name	Latitude	Longitude	Distance
0	Ersoy Hastanesi	40.9665	29.2694	2892
1	Özel Adatıp Hospital	40.9258	29.2912	3367
2	Emsey Hospital	40.924	29.2893	3599
3	Sultanbeyli Yeni Devlet Hastanesi	40.9862	29.2826	3764
4	Özel Saygı Hastanesi	40.9697	29.2578	3930
5	Ersoy Hastanesi	40.9109	29.2982	4938
6	Marmara Üniversitesi Pendik Eğitim Ve Araştırm...	40.8896	29.2651	7878
7	Marmara Üniversitesi Pendik Eğitim ve Araştırm...	40.8865	29.263	8268
8	Cihan Tıp Merkezi	40.8788	29.2716	8839
9	Sancaktepe Sahra Hastanesi	40.998	29.2115	8860
10	Pendik Özel Yüzyıl Hastanesi	40.8795	29.261	9049
11	Vm Medical Park Pendik	40.8805	29.2562	9108
12	Özel Pendik Bölge Hastanesi	40.8826	29.2457	9296
13	Medipol Üniversitesi Pendik Hastanesi	40.8842	29.2356	9595
14	Sancaktepe Eğitim Ve Araştırma Hastahanesi	41.0055	29.1966	10364
15	Çekmeköy Devlet Hastanesi	41.0373	29.2353	10647
16	Okan Üniversitesi Hastanesi	40.8494	29.3021	11779
17	Özel Gisbir Sağlık Merkezi Hastanesi	40.8478	29.2944	11968
18	Tuzla Devlet Hastanesi Fizik Tedavi Ünitesi	40.8446	29.3031	12310
19	Tuzla Devlet Hastanesi	40.8446	29.3032	12317

2. The data that we collect from Foursquare API. The hospitals that near to the patient's location.

Methodology

We need patient's location. So first patient gives his/her location. After that we find the hospitals that near to the patient. Foursquare gives us the distance too. So this makes us faster. We sort distance and we show the nearest hospital to patient as a black icon while the others' colors were blue. And we print the nearest hospital's name. And on the map the patient can see where the nearest hospital is.

Results and Discussion

By this way the patient can find the nearest hospital. This can be develop by making some visualizations or only giving location maybe we can show the patient directions or maybe we can send find the hospital's number and send the patient's location to them as a message etc.

3. Patient and hospitals. Red dot shows patient, black dot show the hospital the nearest one while rest of them showing the hospitals too.

Conclusion

This project aimed that spend less time to search the nearest hospital. But as we say previous section this project can develop much much more. Thank you.