

1. Introduction section

1.1. Kyiv is a biggest Ukrainian city with relatively high population (3 million), square (84 square kilometers) and long history (its age is approximately 1500+ years). The city lies on a so-called crossroad between East and West and experienced a lot of adventures during its history. Many of them influenced on architectural view and venues density. In the end, the city consists of 10 boroughs and conditions in them again, are pretty different- from almost river side height to hills, from concrete jungle to lakes and forests nearby. And all these factors gave certain influence on architecture of the city.

So, as you can see finding a flat in such city could be a tricky question. Furthermore, the density and availability of different public institute is very different too, so finding a flat which would be a perfect match to all your needs is a time-consuming and could be a challenge. Especially if you need something very specific (e.g. dance school nearby). The research and analyze will require a lot of time, and due to active real-estate market good opportunities could be lost.

I'm a resident of Kyiv and at certain point of time my family decided to change a flat. At the start point, the main condition was a price, but after viewing few variant some extra more issues have appeared.

In addition, amount of possible variants didn't make our lives easier. So, I decided to create a project which will allows me and my family member's to spare some time, nerves and get the prefect flat in perfect surrounding as result

1.2. Short problem description: find a flat in Kyiv which will meet following requirements:

- Apartment with 2 rooms
- Total price between 65000-67000 USD
- It should allow us to keep same level of comfort as we have in current apartment
- Safety conditions should be the same as we have now

1.3. Target Audience: I believe this project would be useful for anyone who would like to find the best solution within given price, specific venues and some other parameters. In particular, peoples from other regions which are not familiar with city infrastructure or foreigners with same problem. Plus, this project could be increased to cover more business needs and functionality with relatively small costs and amount of time spent.

2. Data section

With respect to problem given above, I used the following data in project:

Data types:

- Manually built data set with all flats that meet initial conditions
- Manually build table with weights used for correlation of results
- Crime rate info

Data sources:

- Real-estate site data taken from <https://flatfy.lun.ua/>
- Google map geo location
- Forsquare API
- Total crime amount divided by boroughs - <https://mvs.gov.ua/>
- Density of population- <https://kyivcity.gov.ua/>