● Duration: 2 weeks

● Requirements:

With the rapid development of urbanization, smart cities have become an important direction for the development of modern cities. Google plays an important role in the construction of smart cities, optimizing city operations, improving efficiency, and providing better services by providing data management and analytics solutions.

Our main task this time is to develop a big data analysis program to determine the intensity of places with different functions by providing cities, zooms (including malls, schools, fitting rooms, etc.). The intensity is equal to the degree of spatial aggregation, measured by Ripley's K-function.

Please finish the follow tasks:

1) Understand what is Ripley's K Function.

2) Implement the Ripley's K Function in Python.

3) Study on the geography data of California, US. Initially take examples of malls, fitting room, hospital and schools (high school, university & college).

4) Search for free and available POI API or other applicable data resources, to obtain the data listed above.

5) Visualize the map with Folium (a python lib). 6) Display Ripley's K

Curve by referring to the demo images