1. **[Data Preparation](https://docs.google.com/document/d/1c-X0wj9KwXf6xvpef6uyYJK8crzpoSMeINkfdBUccjw/edit" \l "heading=h.h9m844snaspr)**

The received Lisbon census data were trimmed and other types of Lisbon geographic data were introduced, such as traffic, medical, security, etc.

1. **Data Visual Explorations**

Visualization of existing data, mainly showing current parish divisions and public resource distribution

1. **Data Modeling**
   1. Lisbon freguesias data modeling

The data from Lisbon is modelled for clustering. Then other data are introduced in the clusters.

* 1. Lisbon freguesias data and extra datas modeling

First import the additional data into the Lisbon freguesias data for clustering.

1. **Modeling Analysis**

The results generated in 3 were analyzed and compared under the reference of the existing Lisbon freguesias classification.

1. **Data Remodeling**

The number of clusters was adjusted by re-modeling the results of the analysis based on fourth step. Set 3 to 5 different number of clusters as the result for analysis respectively.

1. **Remodeling Analysis**

The latest modeling results were analyzed and compared with the existing Lisbon freguesias partition using the optimal model.

1. **Model Optimization**
2. **Additional data expansion**
3. **Model Re-Optimization**
4. **Reflect on and explore the meaning of this process**