**Heatmap planning**

To obtain the data for the heatmap, a connection to the remote database servel was established. This was to allow access to the tables “padrón\_electoral” and “circunscripciones\_electorales”. Padron\_electoral contains the information of over 13 million Chilean citizens, with information on their nombre completo, voter ID, sexo, dirrecion and mesa. It also contains a secondary key id\_circunscripcion\_electoral, which is an important factor in how to calculate the density of people in at each circunscripción. In the circunscripciones\_electorales, the data fields stored are on the nombre archivo, región, provincia, comuna, and circunscripción. Using an SQL query within a Python program, that calculates the number of people per circunscripción and exports the results out in csv format, the data was then transferred to the local computer. At the local computer, the data was used to obtain the GPS coordinates of each circunscripción using a google maps api. After obtaining the coordinates, an HTML file was created where the coordinates and weights (density of people) were inserted. A csv table with the data and physical heatmap graph are both available, for further research purposes.