The purpose of this project is to track vessels (ships) movements and positions through areas and ports. I have a dataset that contains the historical spatial coordinates (positions) along with other information for the ships such as Name, Size, draft, Position, ETA, Destination.

The data sets are in two different tables that can be linked with the unique Ship\_id that corresponds to a vessel. Although right now I don’t have the a link of the ship\_id with the vessels name and size I will eventually get that data.





The project should serve the purpose of measuring the number of vessels that are within an area of interest at time of interest. Of course the first thing that has to be done is to create the geo-fenced areas where the counting will take place. The output of the process should be a list of vessels that matching the input criteria so as to collect and build up a new data set with the required ship counts. Also I would like to have these selected ships to be visualized on a map (maybe google map) as dots. I am attaching a screenshot of a representation from a professional ship tracking software.

The way I see it the algorithm will consists by a several queries on a daily data set and will run several times a day (depending on the frequency that the data is updated). On my current dataset I think there positions are updated twice a day.