

Clearly define a problem or an idea of your choice, where you would need to leverage the Foursquare location data to solve or execute. Remember that data science problems always target an audience and are meant to help a group of stakeholders solve a problem, so make sure that you explicitly describe your audience and why they would care about your problem.

In this Capstone project I will be identifying planning permission applications in Cork City from 2008 onwards. This data is in csv format and has been obtained from the City Council's open data website <https://data.corkcity.ie>.

I will be looking at what neighbourhoods these applications take place in. Here the Foursquare data will help us define these neighbourhoods by the amenities available. I will also be using the supplemental data in this source to provide further useful comparisons between the segmented neighbourhoods once the clustering has been mapped.

The utility of this project lies in a number of features. On the most basic level this is will let us identify the basic neighbourhood types that attract the highest density of planning permission. Additionally the data contains a number of extra pieces of information which can be used to supplement the analysis after clustering. Primarily these applications record whether an application was successful, whether it was for one-off housing and the square footage of the application. We will be able to find the average values for each neighbourhood (or in the case of application success we can see which neighbourhoods are easiest and hardest to obtain permission for).

This information would be of significant interest to many parties. From building contractors and developers to county planners. It would help local businesses identify changing land use patterns and help banks identify which areas are going to experience significant growth.

