Travel Recommendation System

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Introduction

Planning a holiday = research + time

tripadvisor

lonely planet

Introduction

Different people have different opinions..

Spend a day strolling along X and Y streets which are great areas for shopping

tripadvisor

The best way to view London is to take a walking tour

I liked going to the pubs..

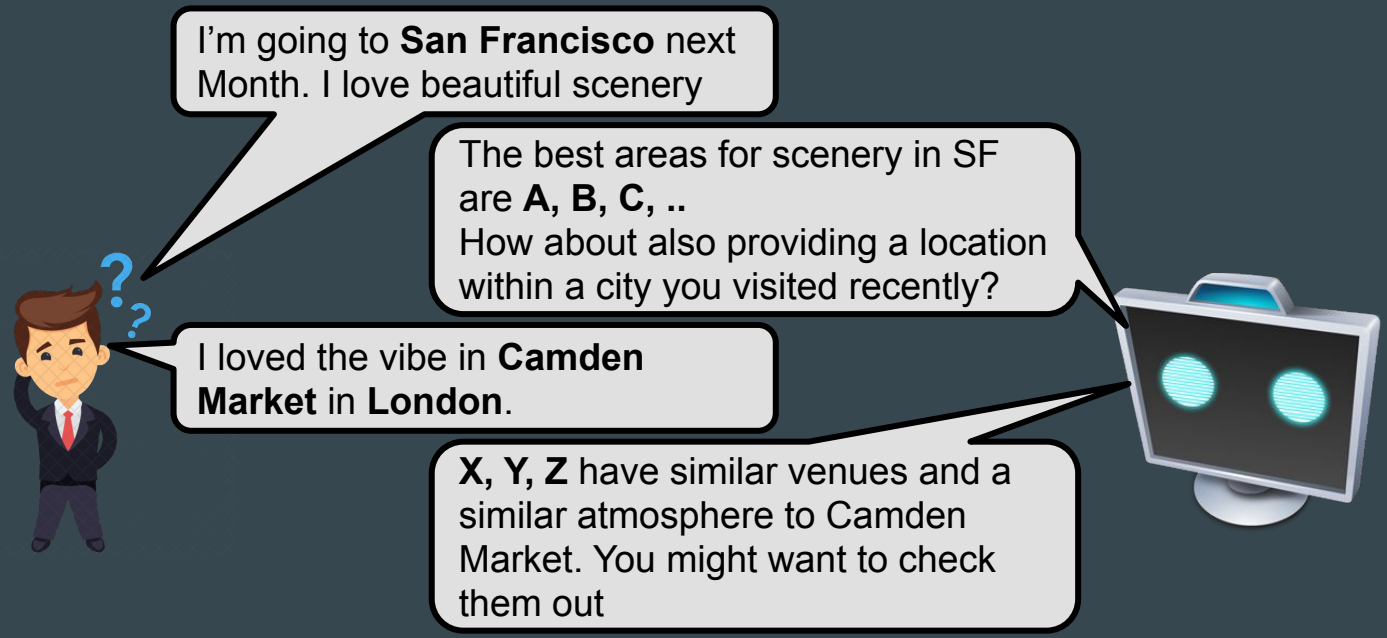
The plan for this tour is to visit museum X, then see the iconic statues in ..

Taking a tour of palace X is a must do as well as catching a show in..

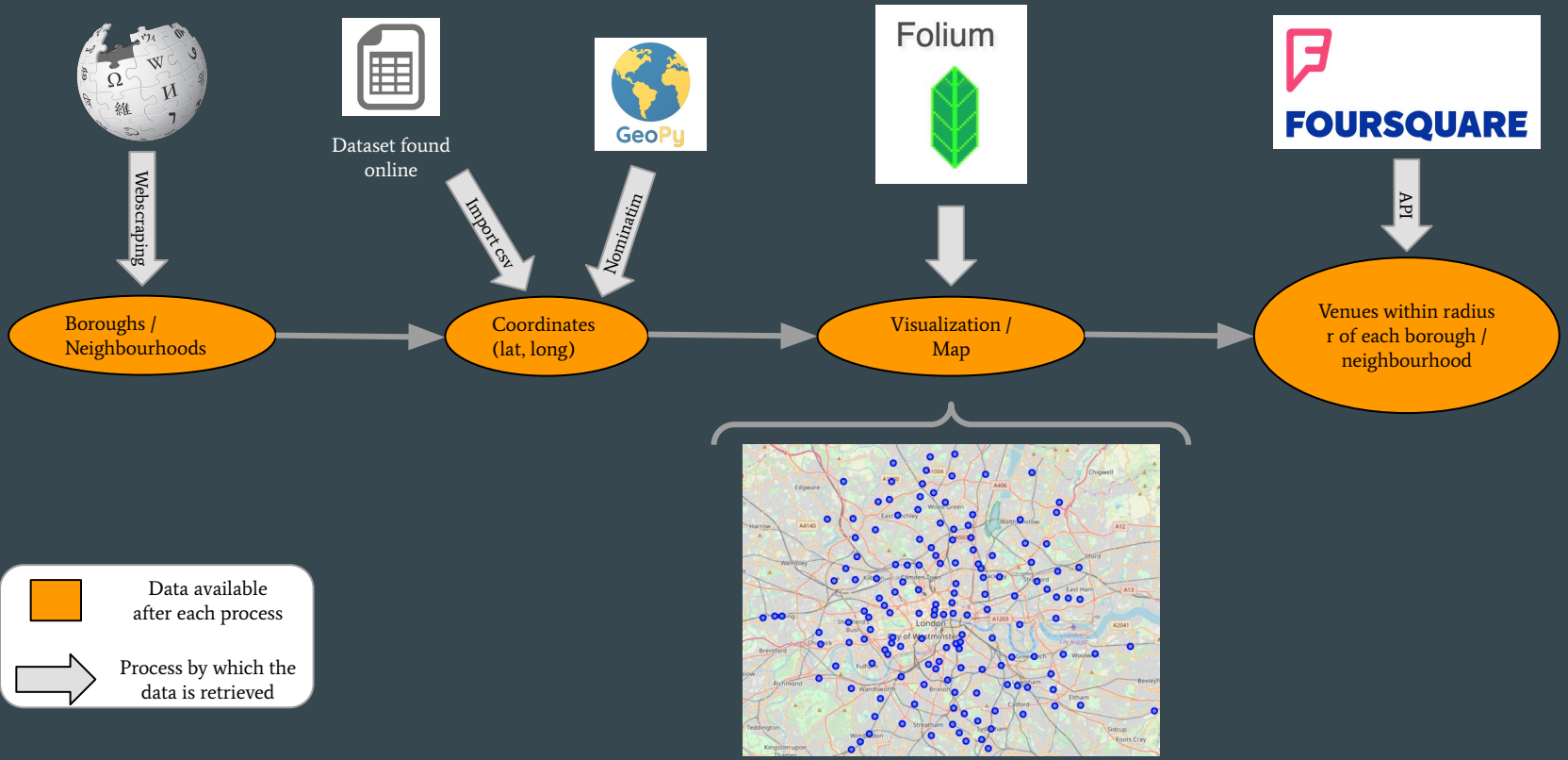
lonely planet

Goal of the project

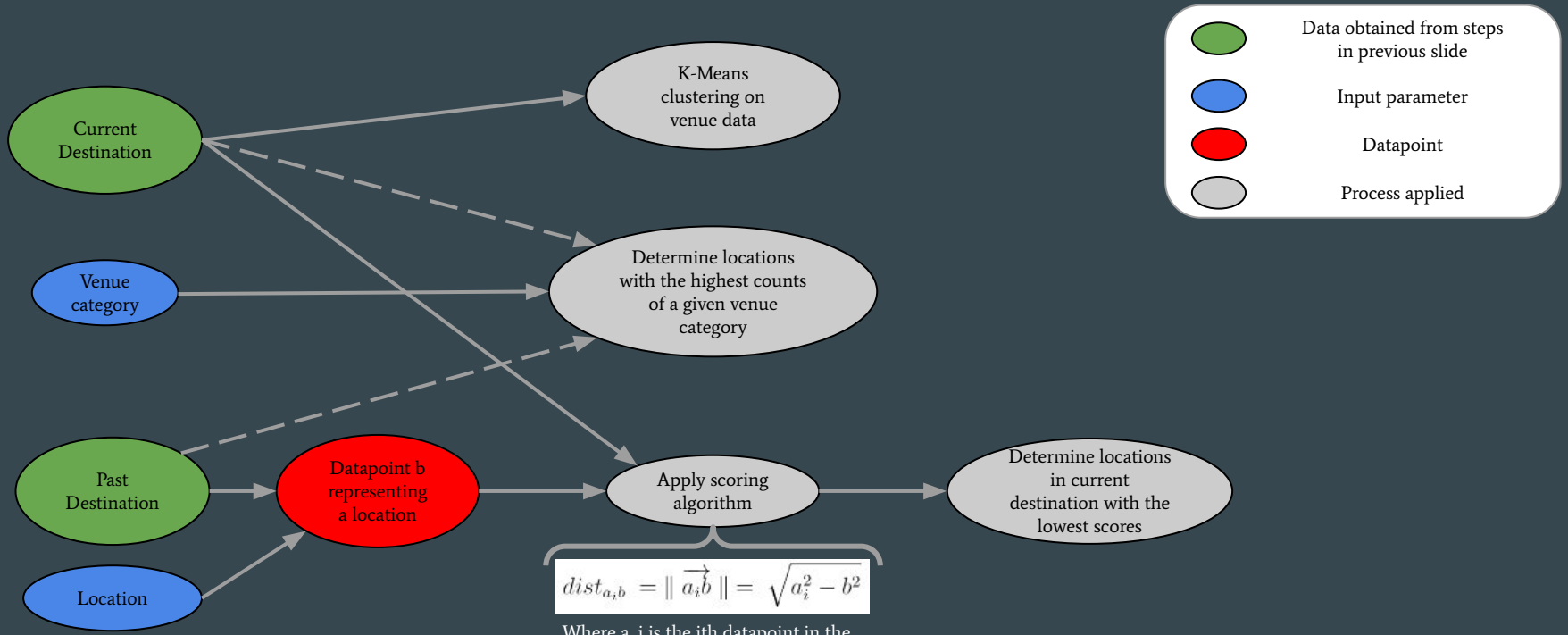
What if a system could take into account **your** preferences and recommend places that correspond to **you**?



Methodology: Data Collection



Methodology: Travel Recommendation

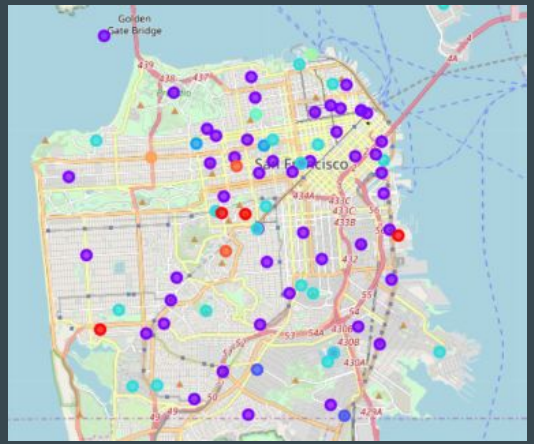


$$dist_{a_i b} = \| \overrightarrow{a_i b} \| = \sqrt{a_i^2 - b^2}$$

Where a_i is the ith datapoint in the current destination dataset

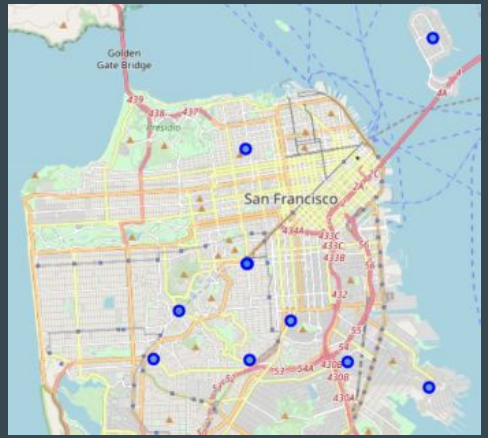
Results

K-Means clustering on venue data



Determine locations with the highest counts of a given venue category

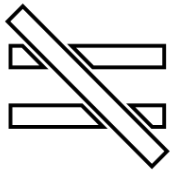
Determine locations in current destination with the lowest scores



Discussion

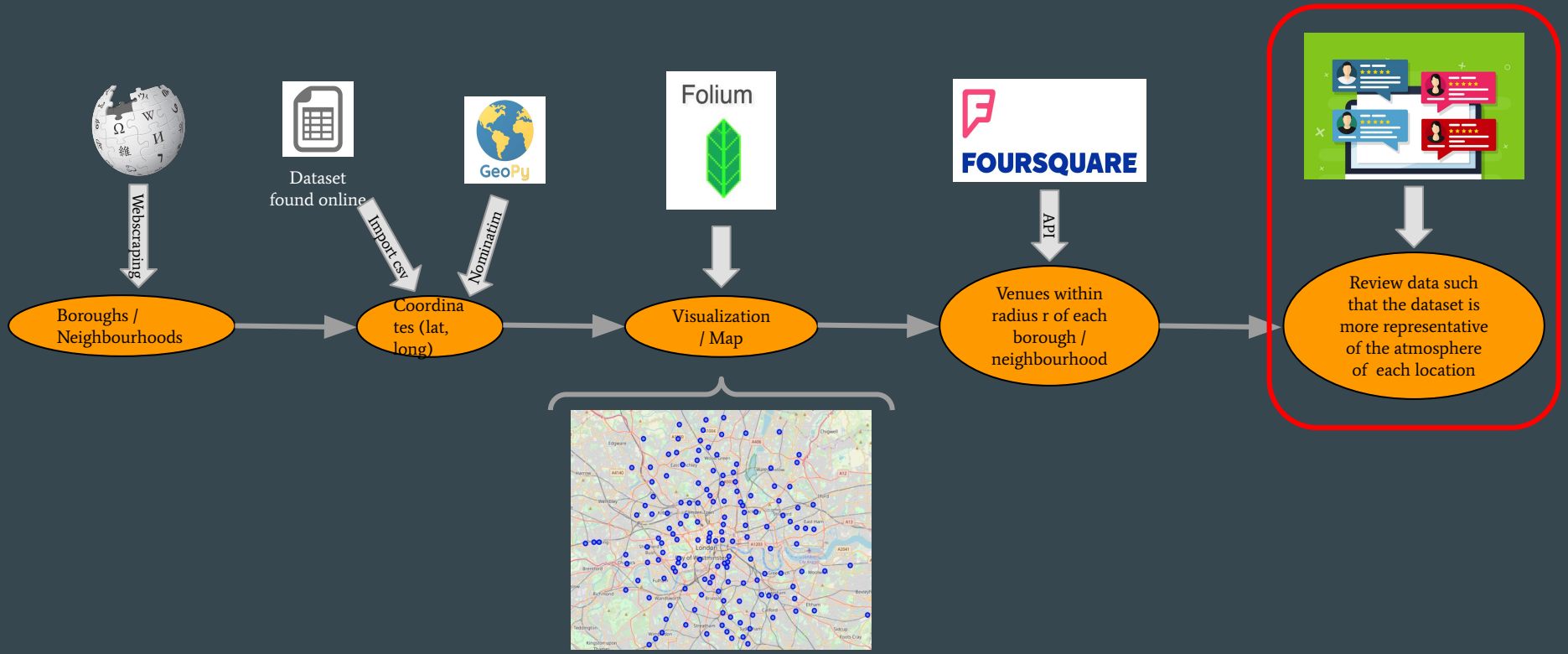
$$r \begin{cases} small, & venues\ are\ not\ representative\ of\ location \\ large & not\ specific\ to\ location\ +\ overlaps \end{cases}$$

Similar nb venues per category



Similar atmosphere

Future Work


Webscraping
Dataset found online
Import csv
Nominatim
Folium
API
Boroughs / Neighbourhoods
Coordinates (lat, long)
Visualization / Map
Venues within radius r of each borough / neighbourhood
Review data such that the dataset is more representative of the atmosphere of each location