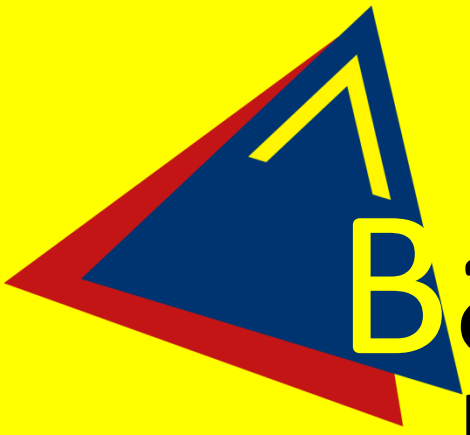


Bangalore.

Housing.{{less}}

Project Documentation

#RealHack

Problem Statement:

Problem Statement 2: ***Help a person discover interesting localities***

PK has landed on a new planet called Earth and lost the communication device to his spaceship. All he does all day is LOOK UP. Look for a place he knew as home. A place that was as much a reflection of him as he was of the place. Help PK find a place that would make him miss his planet less. A place that appeals to his eccentric taste of food, culture and architecture.

The Solution

Our solution's primary functionality is to help user find an appropriate place/locality to stay according to his behaviour and preferences. The solution revolves around three pillars or rather metrics namely, food, trends, news. There are possibly tens of such metrics like work, traffic, accessibility and so on but the aforementioned metrics have been chosen, the why(these were selected) and purpose of each metric is elaborated in the following text.

Food

As the lifestyle of masses is improving year by year, food has moved up in a lot of priority lists. People these days tend to hangout more often for food and a bear than the earlier days and it certainly makes a person happy to have a restaurant of his/her taste in the vicinity of his home.

Trends

Trends, specifically Twitter Trends allows us to discover most happening places in a city. Twitter provides api which can return all the tweets in and around the queried geographical area which in turn can be analysed for specific set of keywords and houses in the vicinity can be moved up the list.

News

This is essentially a negativity indicator. The google news api returns news based on the queried city and the returned news results can then be analysed against locations and factors like crime, civic negligence, road conditions and even traffic.

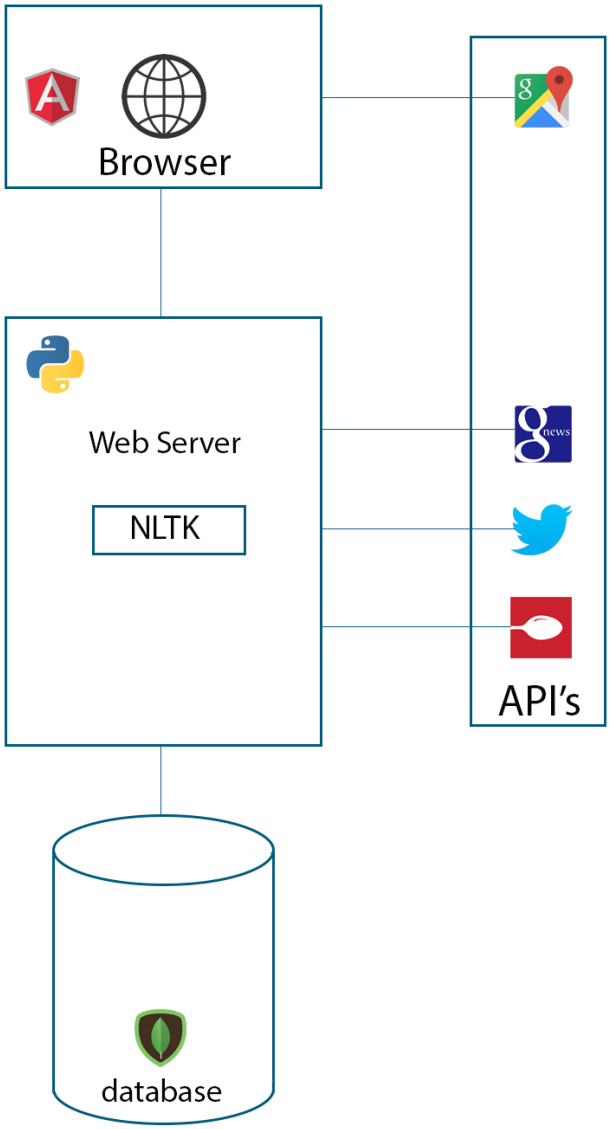
The most important metrics in the decision making about a house are the distance between work and home and traffic between work and home. The above mentioned metrics do not include both of them, at least not directly. Accurately analysing traffic trends requires data to be, essentially, historic. Currently there is no open api which provides historical traffic data hence, making the analysis a bit difficult.
Work around: The application gets news items from google api which is analysed in order to get traffic, crime, civic negligence and other amenities data in the required geographical area.

The data for metrics listed above is easily available by, either using an open api or scrapping/data mining. Hence the aforementioned metrics were used over others to filter and sort house listings.

Technology

Design & Architecture

The data storage part is taken care of by mongoDB. dJango on top of python is employed as the web framework. Finally, angularjs is used to serve data at the client side. As the project involves extensive analysis of data pulled from zomato, twitter and google news, a dedicated package was required to serve the purpose, hence nltk is used to analyse reviews, news content and tweets to understand and develop analytical results from online trends.



Further Scope

The following aspects can be implemented to enhance the current app:

1. Using data mining and trend analysis to determine user's online behaviour in order to auto populate his/her preference list.
2. Analysing historical traffic data to get insights into traffic trends in a geographical area. The trends can then be deployed to put forth a few listings ahead of others.

Team:

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