

Capstone Project - The Battle of the Neighborhoods

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Suggest cost effective location for Burger Joint
(PVR Cinemas) Mumbai INDIA

Introduction: Business Problem

- PVR has a strong presence of movie theatres approx. 162 locations across 64 Indian cities. In Mumbai they have presence in 9 Location.
- PVR Cinemas looking to open Burger Shops along with Movies Theaters. Based on Analysis we have to suggest which location will be cost-effective to start with.
- Below are the 9 Locations that we are going to analysis: ☐ Juhu ☐ Mulund ☐ Goregaon ☐ Lower Parel ☐ Kurla ☐ Andheri ☐ Panvel ☐ Kandivali West ☐ Dombivli
- We looking to find the location which will be suitable based on customer base and less competition from other nearby Burger Shops.

Data

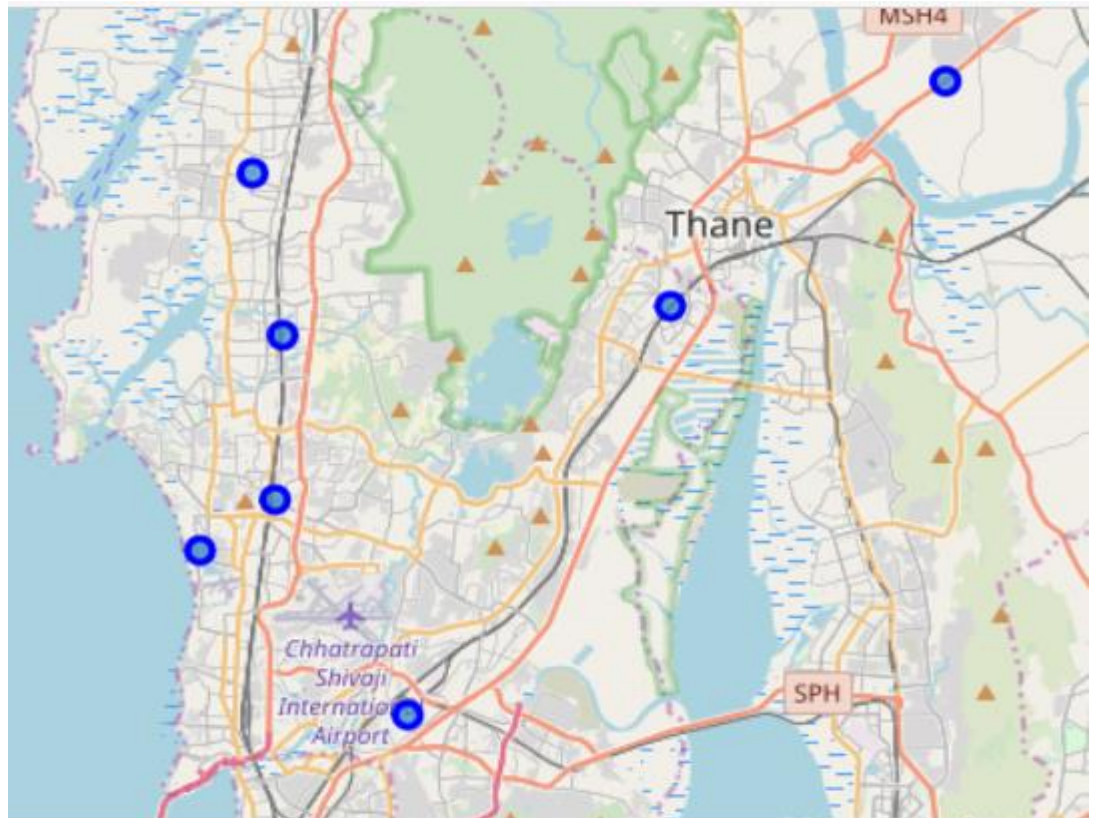
- As a start point , we referred the data from Wikipedia to identify "PVR Cinemas" locations.
https://en.wikipedia.org/wiki/PVR_Cinemas
- We got the list of all Movies theaters locality in India under "PVR Cinemas". Our objective to find locations in Mumbai - Maharashtra, so data cleaning activity is performed.
- To find the geo locations of all Movies theaters locality we have used API of <http://nominatim.openstreetmap.org>
- Later is Project , we used Foursquare to find the venues data based on nearby :
 - ❑ Nearby other Multiplex & Movie Theaters
 - ❑ Nearby other Burger Joint
 - ❑ Nearby University & Colleges
 - ❑ Nearby Office or working Locations

Methodology

- We have used location data for each 9 locations and further analyze all location based on following nearby opportunity & threads. We have used weight system in order to rate well the opportunity and subtract the threads and come out with fair mechanism to achieve the project goal and suggested the optimized location based of all below analysis
- Opportunity Weights :
 - ❑ Nearby Movie Theater (1.5)
 - ❑ Nearby college university(2.0)
 - ❑ Nearby Working locations (2.5)
- Threads Weights :
 - ❑ Nearby other burger Joint (-2)

PVR Cinemas locations in Mumbai

	MumbaiVenue	Latitude	Longitude
106	Juhu	19.107021	72.827528
107	Mulund	19.172290	72.956469
108	Goregaon	19.164753	72.850018
109	Lower Parel	19.002988	72.830322
110	Kurla	19.062995	72.884714
111	Andheri	19.120371	72.848043
112	Panvel	18.989525	73.122193
113	Kandivali West	19.208380	72.842227
114	Dombivli	19.232921	73.032295



Study of Other Burger Joint

	MumbaiVen	MumbaiVen Latitude	MumbaiVen Longitude	Venue	Venue Latitude	Venue Longitude	Venue Category
0	Juhu	19.107021	72.827528	Frisbees - The Burger Peddler	19.113349	72.828547	Burger Joint
1	Mulund	19.172290	72.956469	Kunj Vihar	19.172499	72.956256	Burger Joint
2	Mulund	19.172290	72.956469	McDonald's	19.168482	72.952225	Burger Joint
3	Mulund	19.172290	72.956469	kunjvihar mulund	19.170681	72.960431	Burger Joint
4	Mulund	19.172290	72.956469	Santosh Wada Pav	19.177024	72.964034	Burger Joint

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Location study showing nearby Burger Joints



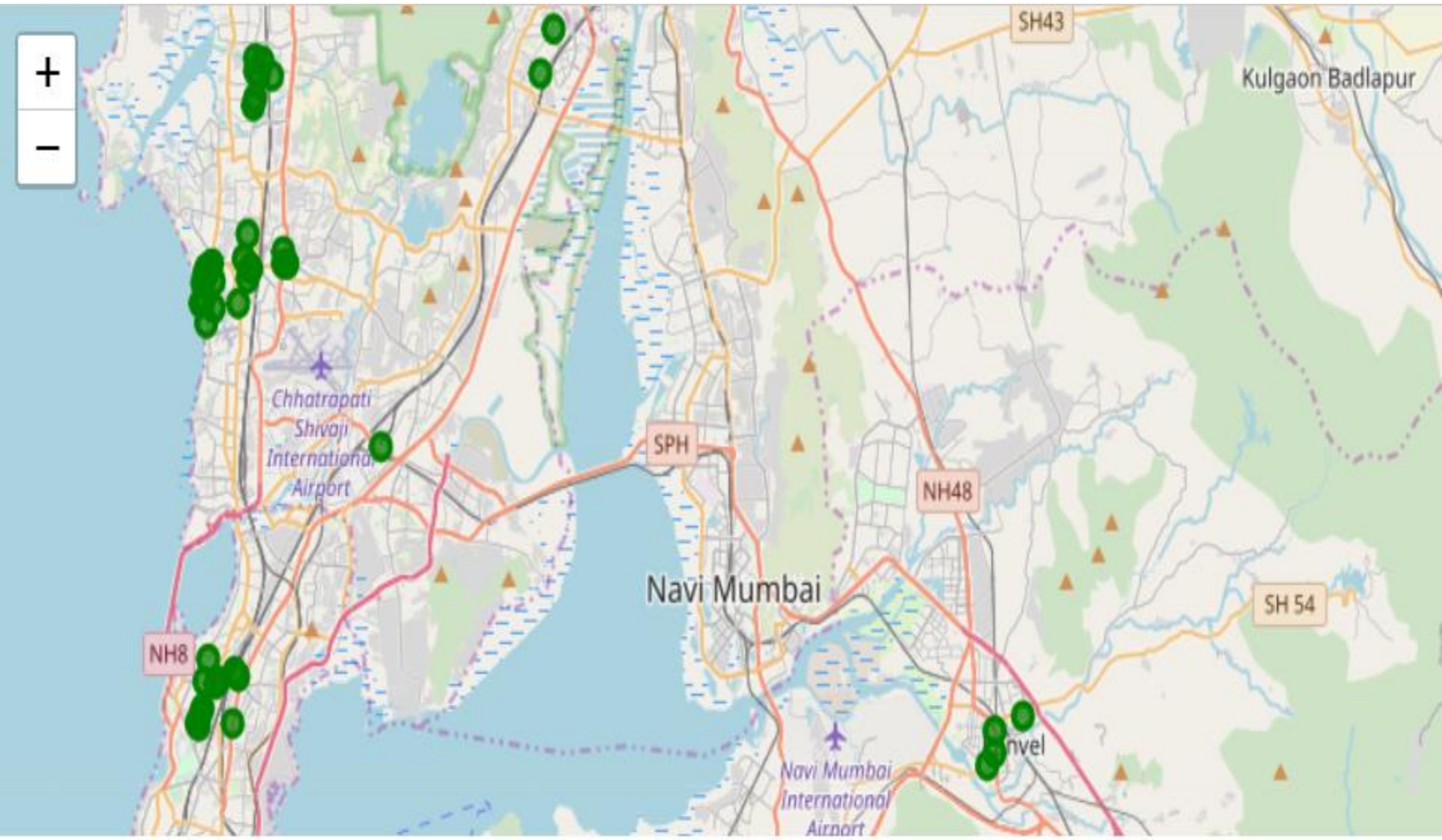
Study of Nearby Movie Theatres

	MumbaiVen	MumbaiVen Latitude	MumbaiVen Longitude	Venue	Venue Latitude	Venue Longitude	Venue Category
0	Juhu	19.107021	72.827528	PVR Dynamix, Juhu	19.113196	72.826446	Multiplex
1	Juhu	19.107021	72.827528	Pvr Audi 5	19.105800	72.825200	Multiplex
2	Juhu	19.107021	72.827528	juhu taxi stand , andheri	19.107115	72.826352	Movie Theater
3	Juhu	19.107021	72.827528	PVR Cinemas	19.114637	72.827452	Multiplex
4	Juhu	19.107021	72.827528	PVR Cinemas, Juhu	19.114688	72.827490	Multiplex

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Location study showing nearby Movie Theatres



Study of Nearby college & University

	MumbaiVen	MumbaiVen Latitude	MumbaiVen Longitude	Venue	Venue Latitude	Venue Longitude	Venue Category
0	Juhu	19.107021	72.827528	Jamnabai Narsee School	19.105950	72.832032	School
1	Juhu	19.107021	72.827528	Actors Prepare	19.109636	72.823942	College Administrative Building
2	Juhu	19.107021	72.827528	St. Joseph's High School, Juhu	19.105534	72.826775	General College & University
3	Juhu	19.107021	72.827528	RIMS International School And Junior College	19.101637	72.826135	University
4	Juhu	19.107021	72.827528	Communication Lab	19.109027	72.837400	College Lab

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Location study showing nearby Colleges & University



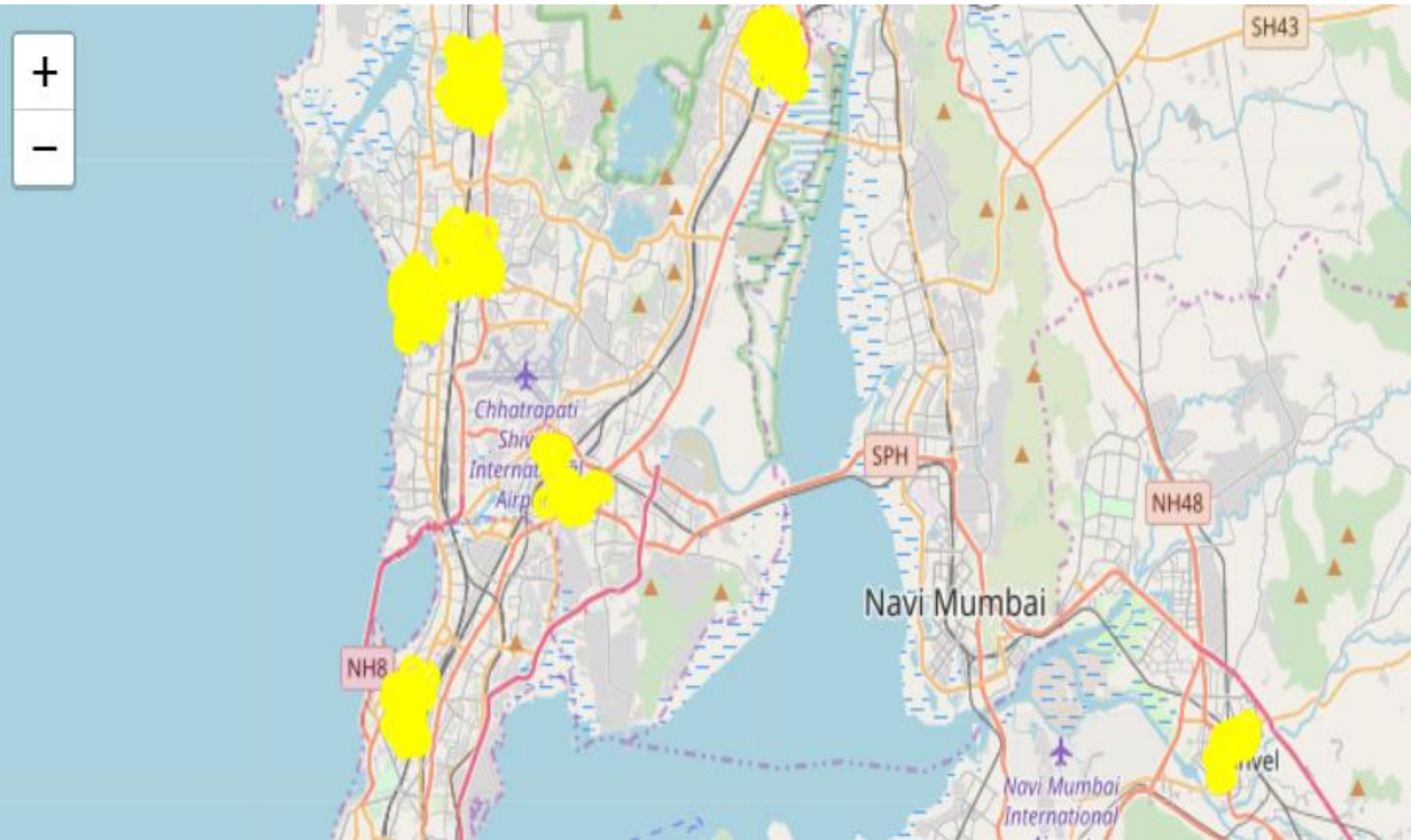
Study of Nearby Office & Work location

	MumbaiVen	MumbaiVen Latitude	MumbaiVen Longitude	Venue	Venue Latitude	Venue Longitude	Venue Category
0	Juhu	19.107021	72.827528	Citibank	19.104615	72.827485	Office
1	Juhu	19.107021	72.827528	Zomato	19.107493	72.829725	Office
2	Juhu	19.107021	72.827528	Punjab and Sinnd Bank Juhu Vile Parle	19.104105	72.830076	Office
3	Juhu	19.107021	72.827528	Kaya Skin Clinic- Juhu	19.109650	72.829807	Spa
4	Juhu	19.107021	72.827528	AB Corp Ltd	19.107489	72.826258	Advertising Agency

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Location study showing nearby Work Locations



Summery Details based on nearby Location Category

	MumbaiVen	Latitude	Longitude	Burger	Movie Theater	College University	Work Locations
106	Juhu	19.107021	72.827528	1.0	17.0	45.0	43.0
107	Mulund	19.172290	72.956469	4.0	2.0	45.0	47.0
108	Goregaon	19.164753	72.850018	2.0	7.0	34.0	45.0
109	Lower Parel	19.002988	72.830322	9.0	14.0	35.0	50.0
110	Kurla	19.062995	72.884714	0.0	1.0	7.0	31.0
111	Andheri	19.120371	72.848043	4.0	9.0	48.0	47.0
112	Panvel	18.989525	73.122193	3.0	4.0	30.0	19.0
113	Kandivali West	19.208380	72.842227	3.0	5.0	38.0	41.0
114	Dombivli	19.232921	73.032295	0.0	0.0	0.0	1.0

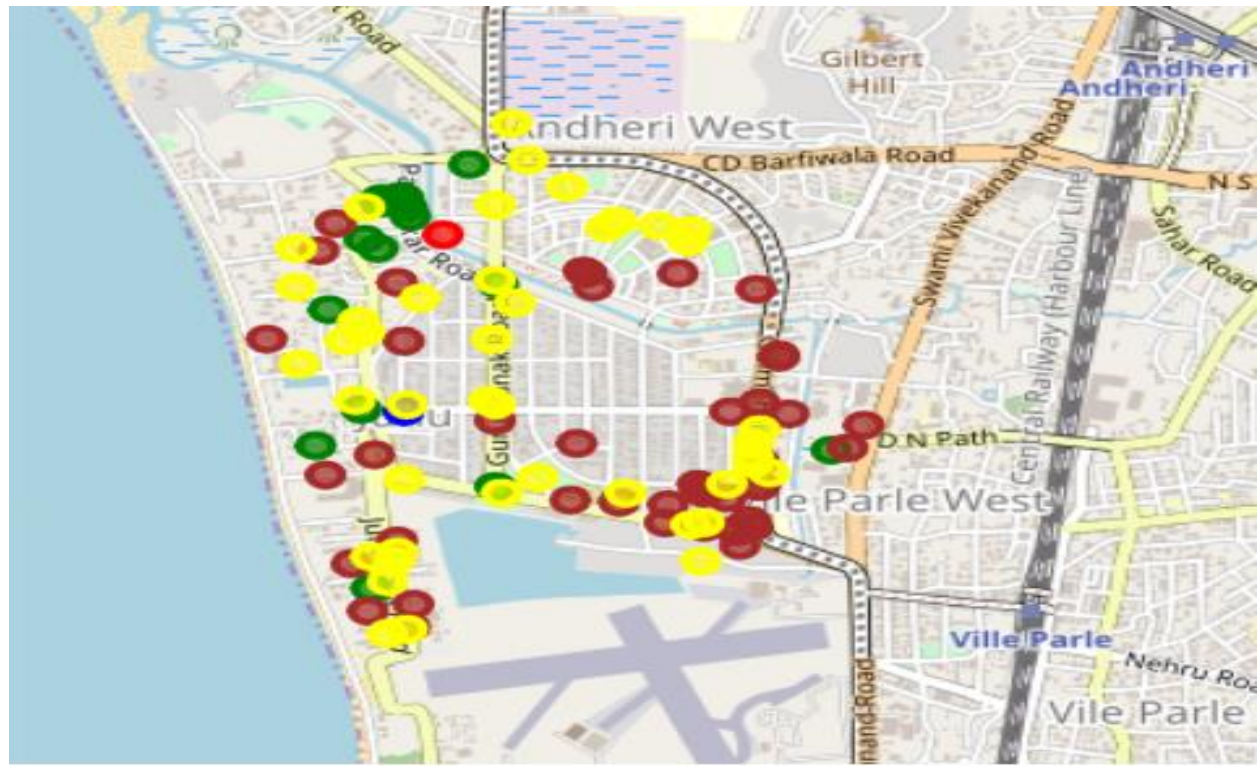
Analysis & Discussion

- Juhu location clearly showing more number of business opportunity compare to any other locations.
- Business opportunity in Juhu
 - ❑ 17 Movies Theatres
 - ❑ 45 Colleges & University
 - ❑ 43 Work locations
- Business threads / competitions in Juhu
 - ❑ Only 1 Burger Joint is operating

Conclusions

- Based on our weightage System raking , Juhu location score highest between all 9 locations.

MumbaiVen	Score
Juhu	221.0
Andheri	219.0
Mulund	202.5
Lower Parel	198.0
Goregaon	187.0
Kandivali West	180.0
Panvel	107.5
Kurla	93.0
Dombivli	2.5



Future Directions

- Outcome can be further optimized by considering
 - ❑ More opportunity parameters , currently we have considered only 4 business opportunity category
 - ❑ More threads parameters need to be analyse to further optimized the business risk.