CAPSTONE PROJECT: THE BATTLE OF THE NEIGHBOURHOODS

INAUGURATION OF AN INDIAN RESTAURANT IN BERLIN, GERMANY

OUTLINE

- Introduction

- Details about the Data

- Methodology

- Analysis

- Result and Discussion

- Conclusion

INTRODUCTION

- **Background:**

    - Berlin, one of the important cities in Germany attracting a lot of people from all over the world

    - Thus restaurant business is seemed to be quite interesting

    - Indian food is quite famous among foreign nationals alongside Indians

    - Thus opening an Indian restaurant in Berlin will be good choice

INTRODUCTION

- **Business Problem:**

- Optimal location for opening an Indian restaurant in the city of Berlin

- Berlin being the capital city of Germany there are many restaurants all over Berlin thus we will try to identify locations in the Berlin city that are not crowded with the restaurants

- We are also interested in the locations which do not have any Indian restaurants in the vicinity

- If the above mentioned criteria gets satisfied we will also prefer the location should be as close to the city centre as opening a restaurant far away from city centre will not attract any customers and this is not good for the business

- **Target Audience:**

  The main target audience for the project is anyone or stakeholder who wanted to open an Indian restaurant in the city of Berlin
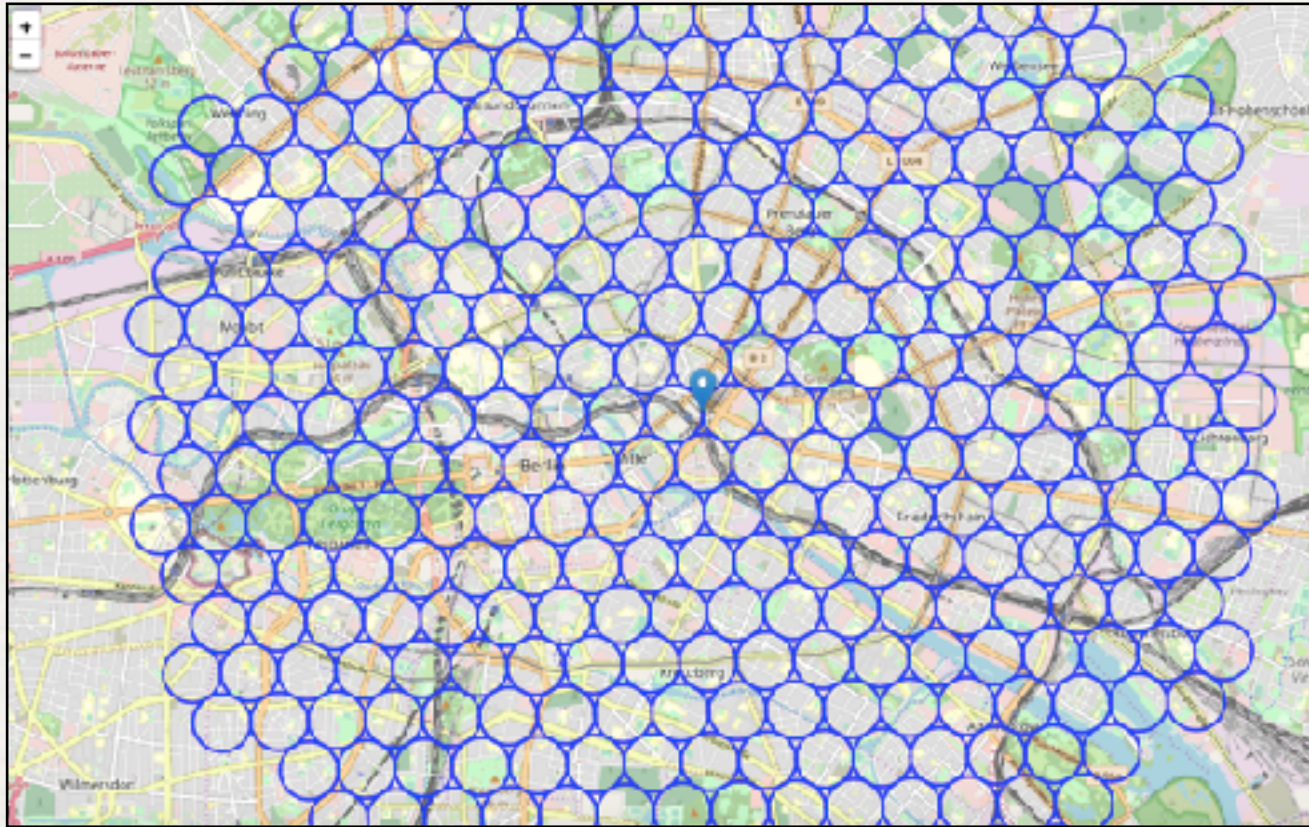
DETAILS ABOUT DATA

DATA DESCRIPTION

- Selection of central part of Berlin (Alexanderplatz)

- Getting geographical co-ordinates of the central location and creating a hexagonal grid of 12km x 12km from central locations

- Obtaining all the geographical co-ordinates and address of the interesting locations using geocode and reverse geocode

- Using API to get list of total restaurants and Indian restaurants in an around Alexanderplatz with the previously created grid

DETAILS ABOUT DATA

DETAILS ABOUT NEIGHBOURHOODS

Folium map of Berlin showing the formed location of interest or location of neighbourhoods
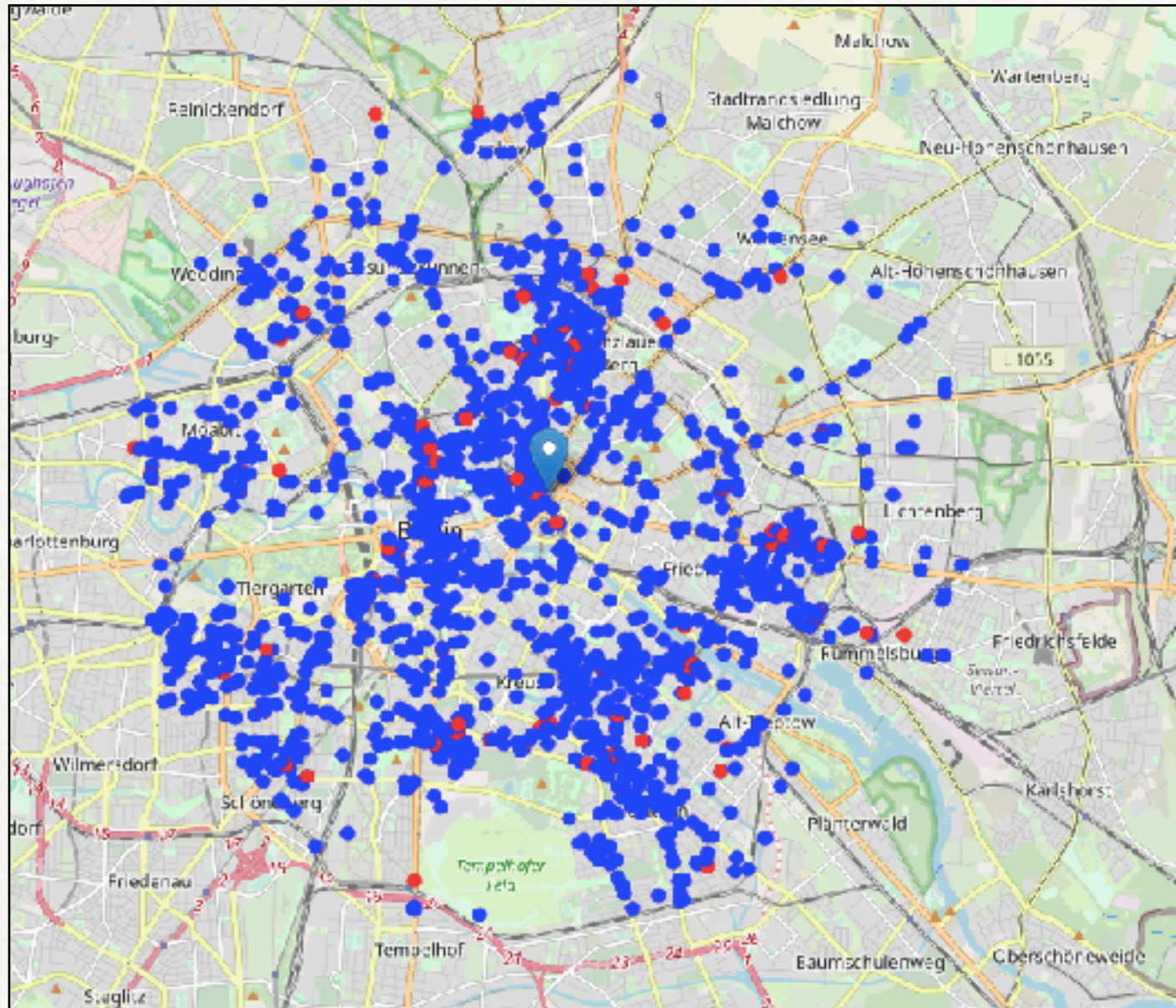
	Address	Latitude	Longitude	X	Y	Distance from center
0	(ehemalige südliche Start- und Landebahn, Gart...	52.470217	13.388649	390559.94364	5.814560e-06	5992.495307
1	(ehemalige südliche Start- und Landebahn, Temp...	52.470337	13.397678	391159.94364	5.814560e-06	5840.376700
2	(ehemalige südliche Start- und Landebahn, Temp...	52.470456	13.406508	391759.94364	5.814560e-06	5747.173218
3	(Hundeauslauf, ehemalige südliche Start- und L...	52.470574	13.415337	392359.94364	5.814560e-06	5715.767665
4	(22, Warthestraße, Schillerkiez, Neukölln, Ber...	52.470692	13.424167	392959.94364	5.814560e-06	5747.173218
5	(14, Ilsenhof, Rollbergsiedlung, Neukölln, Ber...	52.470810	13.432996	393559.94364	5.814560e-06	5840.376700
6	(Mode Ates, 215, Karl-Marx-Straße, Richardkiez...	52.470926	13.441826	394159.94364	5.814560e-06	5992.495307
7	(36, Hessenring, Gartenstadt Neu-Tempelhof, Te...	52.474705	13.375433	389659.94364	5.815079e-06	5855.766389
8	(127, Kleineweg, Gartenstadt Neu-Tempelhof, Te...	52.474826	13.384263	390259.94364	5.815079e-06	5604.462508
9	(ehemalige nördliche Start- und Landebahn, Tem...	52.474946	13.393094	390859.94364	5.815079e-06	5408.326913

Details about the Neighbourhoods

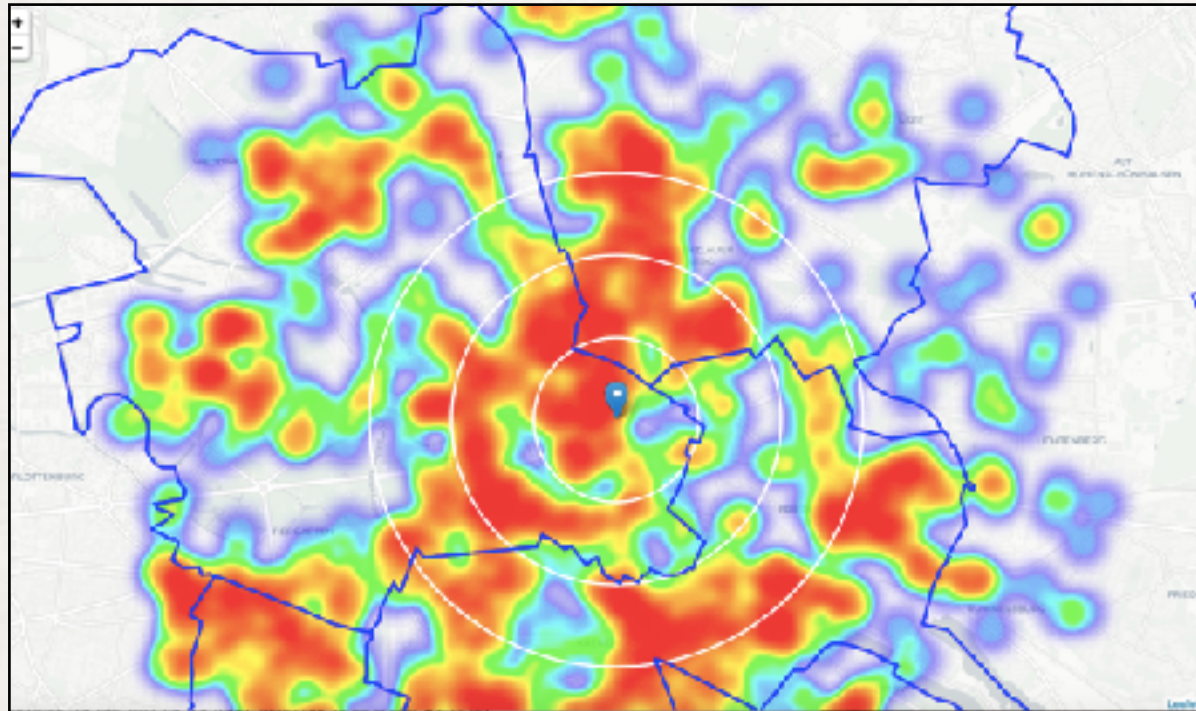# DETAILS ABOUT DATA
DATA FROM FOURSQUARE API

Folium map of Berlin showing the all
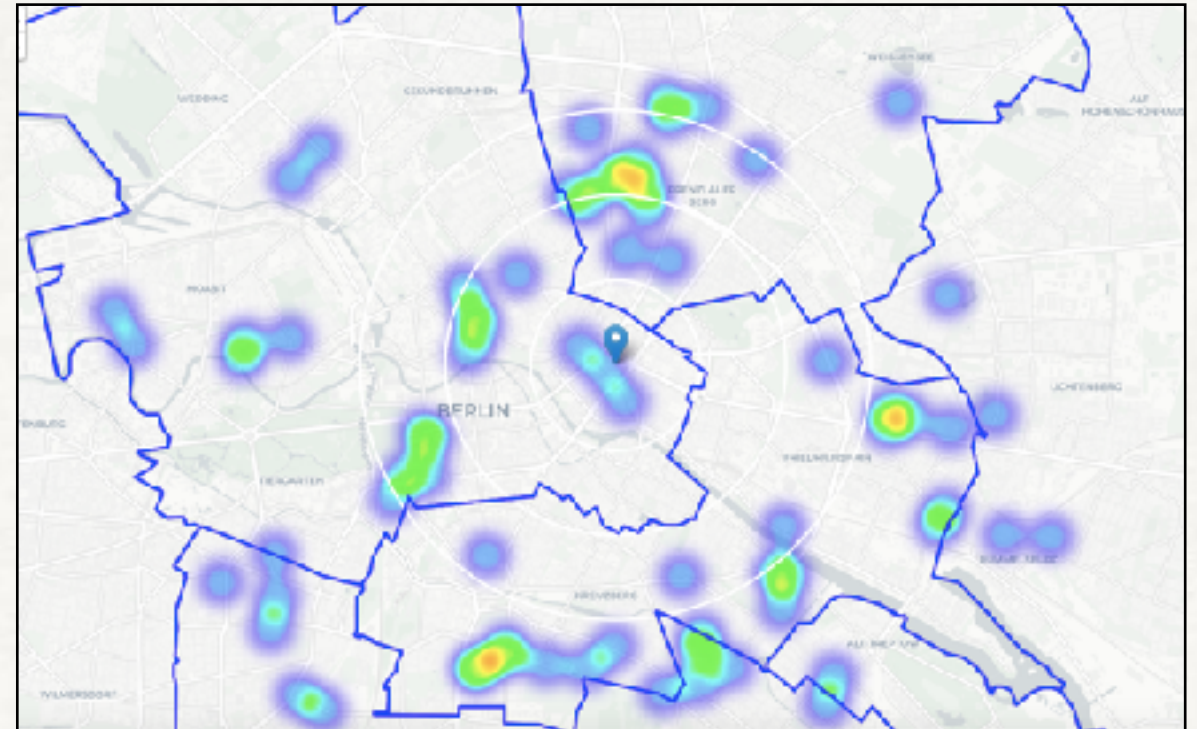restaurants and Indian restaurants

METHODOLOGY

- Detect areas of Berlin having low density of restaurants especially those areas where the number of Indian restaurants are low

- We will limit our analysis area to around 6 Km from the previously identified central part of Berlin "Alexanderplatz

- We will be using heat maps to identify the area of interest and then focus our main interest on those identified areas

- In the final part of the project we will mainly focus on previously obtained areas or neighbourhoods of interest and within those ares we will create cluster of locations that will meet some of the basic requirements for the project. Established discussion with the stakeholders we will take into considerations the locations

  - Having no more than two restaurants in radius of 250 m

  - Locations having no Indian restaurants within radial distance of 400 m
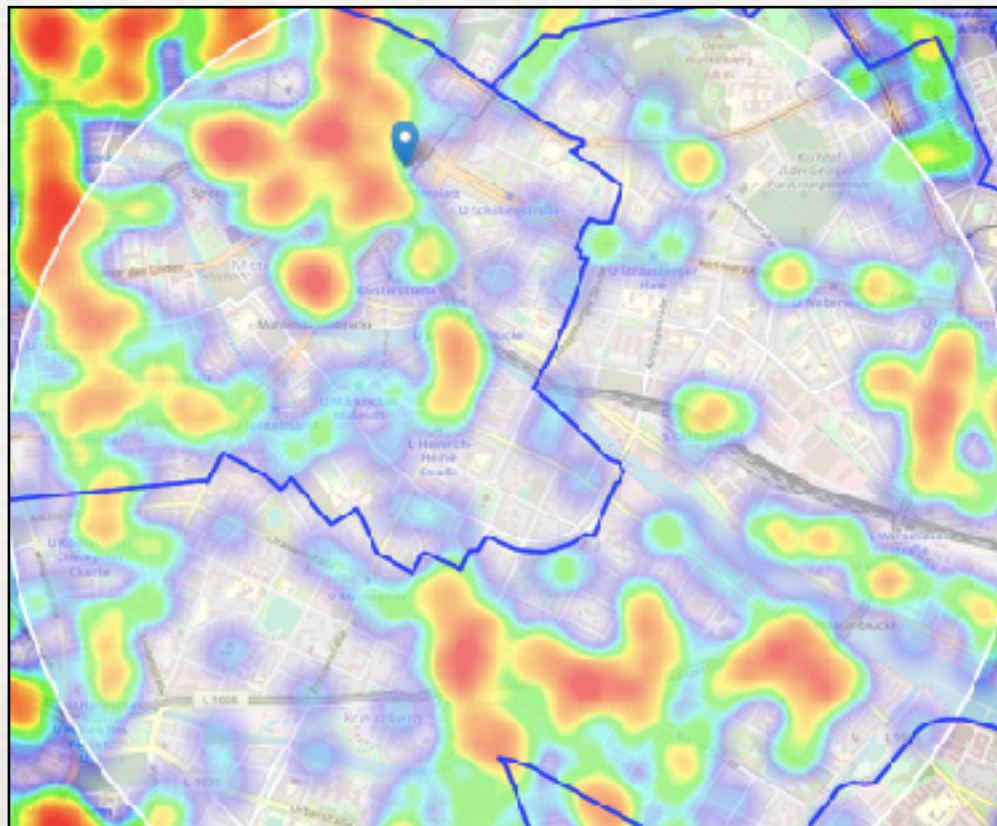
ANALYSIS

Heat map of Berlin showing the all restaurants
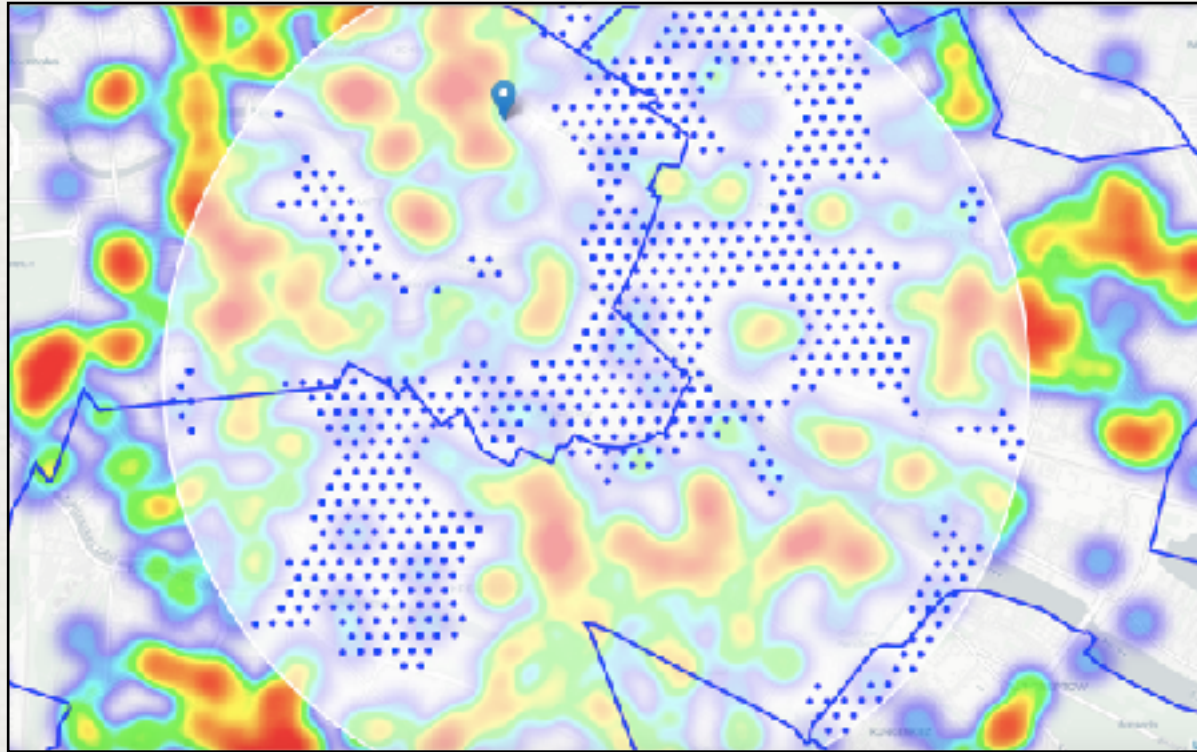

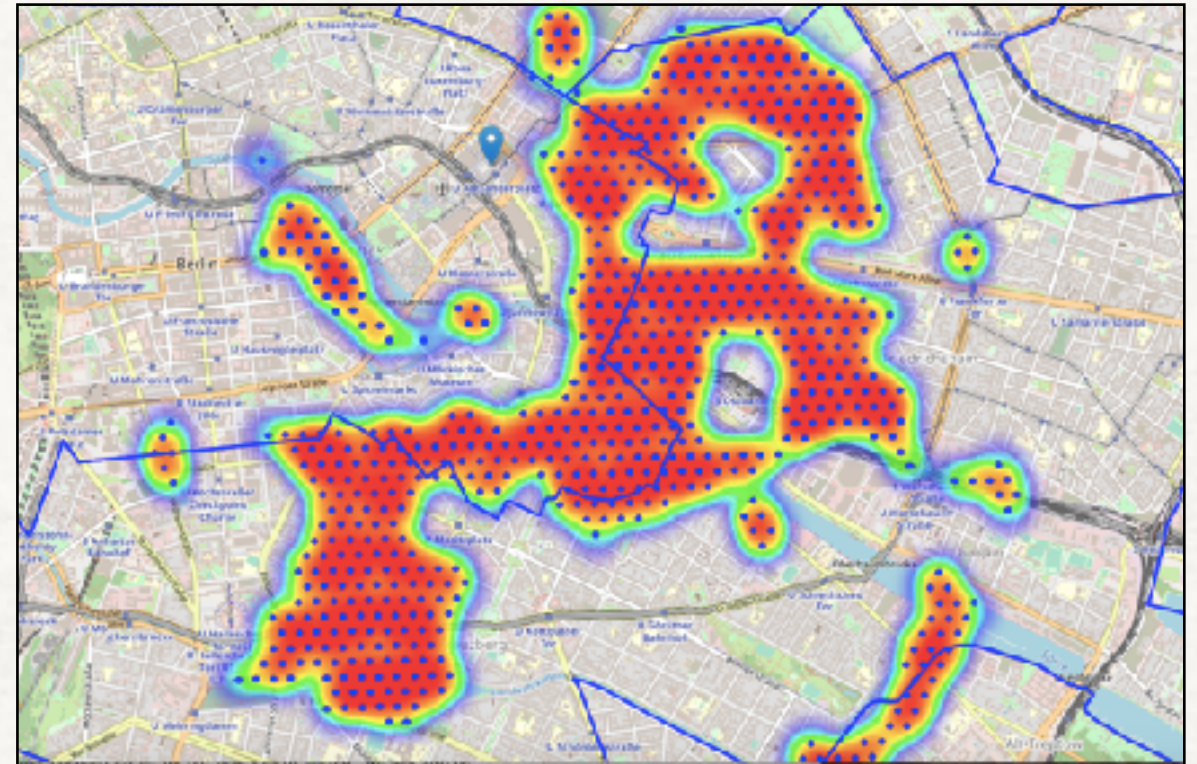Heat map of Berlin showing the all Indian restaurants

Heat map of Berlin showing new area of interest ("Kreuzberg" and "Friedrichshain")
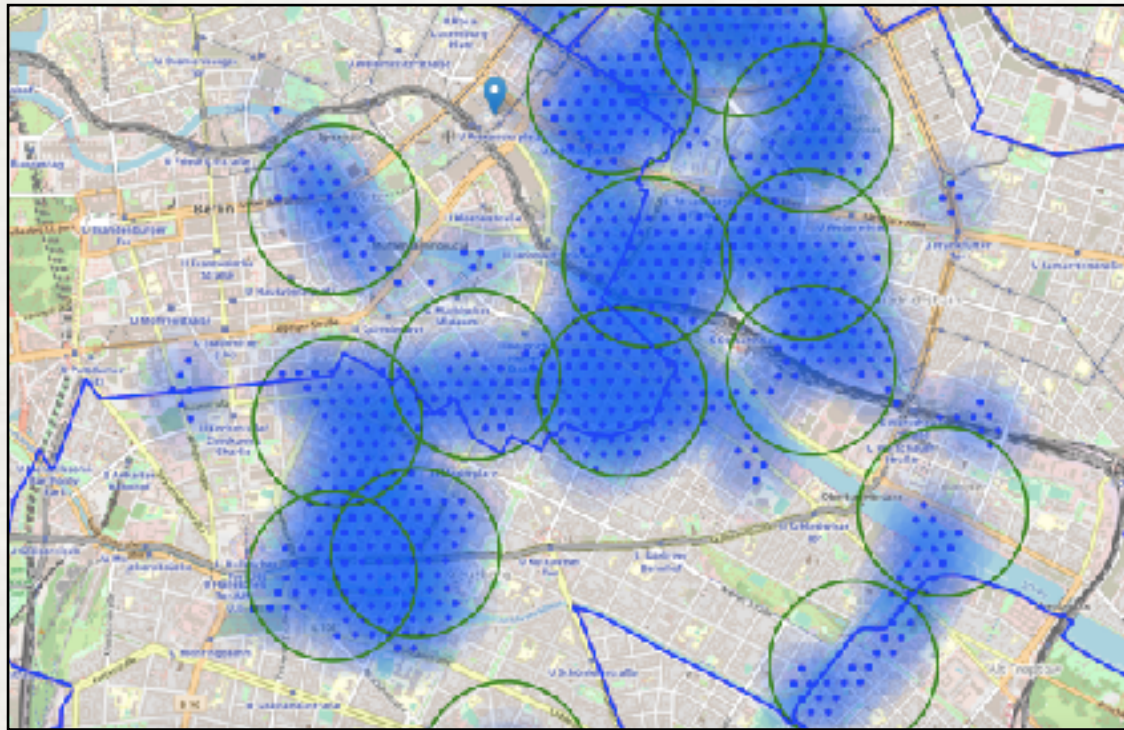
ANALYSIS

Heat map of Berlin showing the all restaurants in "Kreuzberg" and "Friedrichshain"
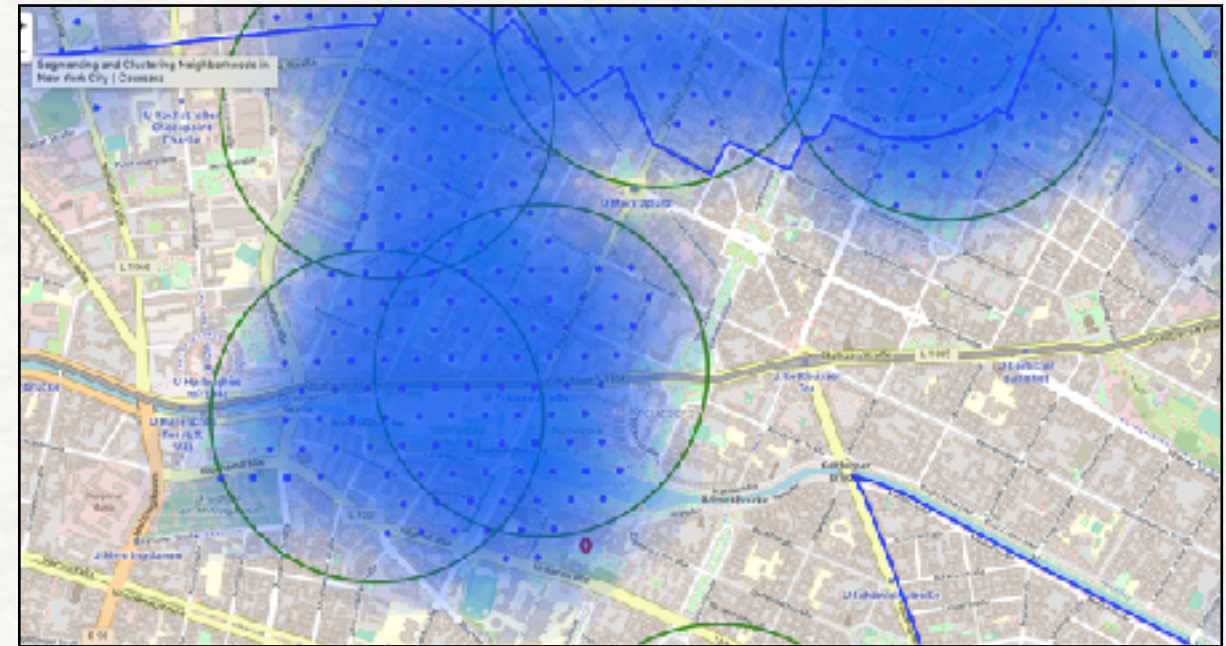

Heat map of Berlin showing the interesting locations for final analysis
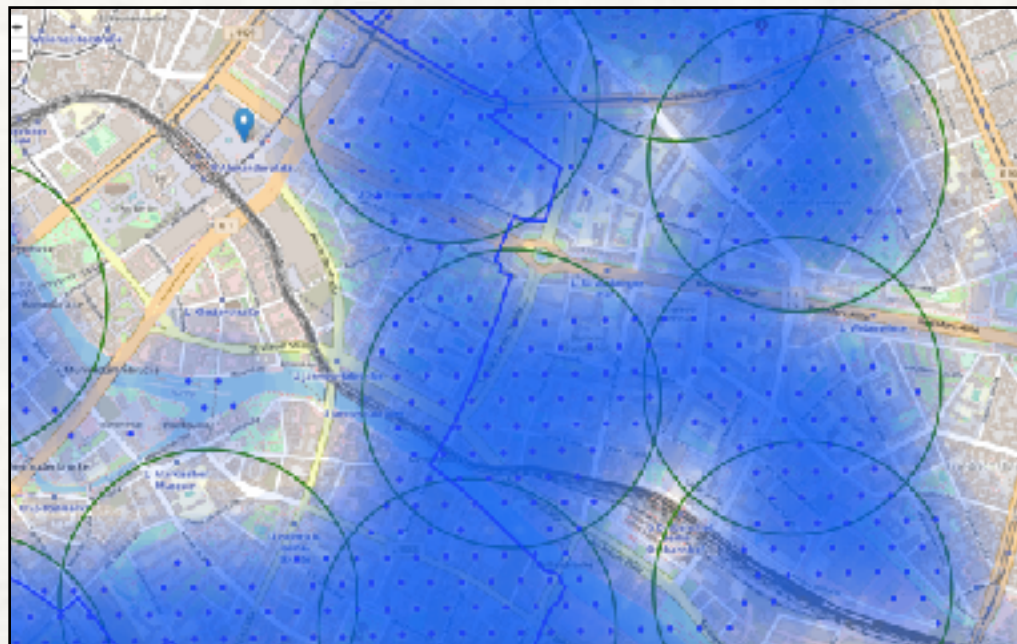
ANALYSIS

Map of Berlin showing the interesting locations after cluster formation

Map of Berlin showing the interesting locations after cluster formation at "Kreuzberg"

Map of Berlin showing the interesting locations after cluster formation at "Friedrichshain"

FINAL RESULT

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Addresses of centers of areas recommended for further analysis
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Themengarten Bachlauf, Fhain, Friedrichshain-Kreuzberg, Berlin, 10249, Deutschland
=> 1.5km from Alexanderplatz
Landwehrkanal, Carl-Herz-Ufer, Kreuzberg, Friedrichshain-Kreuzberg, Berlin, 10961, Deutschland
=> 2.9km from Alexanderplatz
26, Krautstraße, Fhain, Friedrichshain-Kreuzberg, Berlin, 10243, Deutschland
=> 1.2km from Alexanderplatz
5, Stralauer Allee, Fhain, Friedrichshain-Kreuzberg, Berlin, 10245, Deutschland
=> 3.5km from Alexanderplatz
87, Dresdener Straße, Mitte, Berlin, 10179, Deutschland
1.5km from Alexanderplatz
ehem. Postfuhramt, Melchiorstraße, Mitte, Berlin, 10179, Deutschland
=> 1.8km from Alexanderplatz
28, Straße der Pariser Kommune, Fhain, Friedrichshain-Kreuzberg, Berlin, 10243, Deutschland
=> 2.0km from Alexanderplatz
Kupfergraben, Spandauer Straße, Spandauer Vorstadt, Mitte, Berlin, 10178, Deutschland
=> 1.1km from Alexanderplatz
Deutsche Post, Karl-Kunger-Straße, Kungerkiez, Alt-Treptow, Treptow-Köpenick, Berlin, 12435, Deutschland
=> 3.9km from Alexanderplatz
Senatsverwaltung für Gesundheit und Soziales, 106, Oranienstraße, Kreuzberg, Friedrichshain-Kreuzberg, Ber
lin, 10969, Deutschland                                    => 2.0km from Alexanderplatz
Hellweg, An der Ostbahn, Fhain, Friedrichshain-Kreuzberg, Berlin, 10243, Deutschland
=> 2.4km from Alexanderplatz
12, Mollstraße, Mitte, Berlin, 10178, Deutschland                              => 0.7km
from Alexanderplatz
Tierpark Neukölln, 82, Hasenheide, Kreuzberg, Friedrichshain-Kreuzberg, Berlin, 10967, Deutschland
=> 3.8km from Alexanderplatz
4A, Diestelmeyerstraße, Fhain, Friedrichshain-Kreuzberg, Berlin, 10249, Deutschland
=> 1.9km from Alexanderplatz
Prinzeneck, Prinzenstraße, Kreuzberg, Friedrichshain-Kreuzberg, Berlin, 10969, Deutschland
=> 2.6km from Alexanderplatz
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This shows all the interesting locations for opening an Indian restaurant along with their distance from "Alexanderplatz"

CONCLUSION

- Identification of areas in Berlin city close to the city centre ("Alexanderplatz") with low number of restaurants (specially Indian restaurants)

- Aiding the stakeholders with the identified areas so that they could invest in opening an Indian restaurant

- Identified "Kreuzberg" and "Friedrichshain" boroughs close to city centre suitable for further analysis

- Generated extensive collection of locations which satisfy some basic requirements regarding existing nearby restaurants

- Clustering of those locations was performed in order to create major zones of interest along with obtaining addresses of those zone centres as starting points for final exploration by stakeholders

- Final decision on optimal restaurant location will be made by stakeholders based on specific characteristics of neighbourhoods and locations in every recommended zone