NEW MALL OPENING

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Introduction

BACKGROUND: FIRST PROBLEM WHILE OPENING A SHOPPING MALL IS ITS LOCATION. DEPENDING ON THE PERFECT LOCATION ONE CAN EARN OR LOSS A LOT OF MONEY.

PROBLEM: MAIN GOAL OF THIS PROBLEM IS TO FIND OUT IF MUMBAI IS A PERFECT PLACE TO OPEN A SHOPPING MALL.

INTEREST: MAINLY THIS IS HELPFUL FOR THE BUSINESSMAN WHO IS LOOKING FOR A PLACE TO OPEN A SHOPPING MALL OR WHO IS GOING TO INVEST MONEY ON A SHOPPING MALL.

Data

DATA WE NEED:

* NEIGHBORHOODS OF MUMBAI
* THEIR CO-ORDINATES
* VENUE DATA

SOURCE OF DATA:

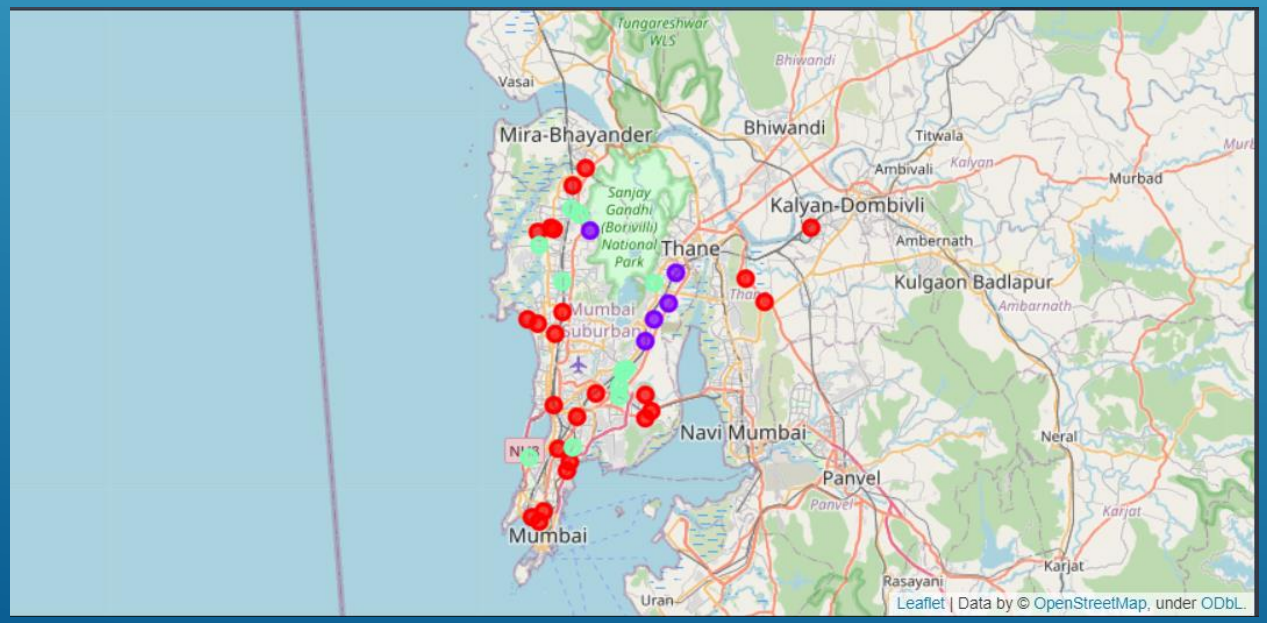
* FOURSQUARE API FOR VENUE DATA
* HTTPS://EN.WIKIPEDIA.ORG/WIKI/CATEGORY:SUBURBS_OF_MUMBAI FOR NEIGHBORHOOD LIST
* PYTHON BEAUTIFULSOUP TO EXTRACT THAT
* PYTHON GEOCODER FOR CO-ORDINATES.

Methodology:

* EXTRACTING DATA FROM THE WIKI PAGE USING BEAUTIFULSOUP
* EXTRACT THE NEIGHBORS OF MUMBAI CITY
* GET THEIR CO-ORDINATES USING GEOCODER
* USE THESE CO-ORDINATES TO GET DATA FROM FOURSQUARE API
* GET TOP 100 RESULTS WITHIN 2000 METERS BY MAKING THIS CALL
* GET A JSON OUTPUT
* EXTRACT NAME, CATEGORY AND CO-ORDINATES
* FILTER SHOPPING MALL AS VENUE CATEGORY
* K-MEANS CLUSTERING BASED ON THE FREQUENCY OF SHOPPING MALL
* ANSWER WHICH PLACE IS BEST FOR SHOPPING MALL

- **Result:**

THERE ARE THREE KINDS OF CLUSTERS.
1. RED: LOW NUMBERS OF SHOPPING MALL
2. PURPLE: HIGH DENSITY OF SHOPPING MALL
3. LIGHT BLUE: MEDIUM DENSITY OF SHOPPING MALL



Concussion:

AS RED MARKERS INDICATE LOW NUMBERS OF SHOPPING MALL, IT IS BEST TO OPEN SHOPPING MALL THERE. BY THIS THE INVESTOR CAN GET MUCH MORE BENEFITS.