Suggesting suitable location to live in "Silicon Valley of India – Bengaluru"

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1. Introduction

1.1 Background

Bengaluru is the capital of the Indian State of Karnataka. It has a population of about 10 million and a metropolitan population of about 8.52 million, making it the third most populous city and fifth most populous urban agglomeration in India. Bengaluru is home to infotech companies like Wipro, Infosys. Many MNCs like Google, Apple have their branches here too, making it very popular for job seekers. Industrial infrastructure, engineering education and industrial policy are some other reasons which help it to become a Tech hub. About 35% of India's pool of IT professionals are in Bengaluru. Now, Bengaluru is not just an IT Hub but it is also the hub of other industries like aeronautics, space research and defence research. It is also the one of the best places for engineering education, thus attracting a lot of students every year. These makes the Bengaluru favourite city among job professionals and students to reside at. Therefore, it will be great help for the professionals if they would know the best location to reside at.

1.2 Problem

It is difficult for the students and professionals to choose the best location to reside at according to their needs and status and taking important factors in account like whether they are married or not , they have kids or not , they have a joint family or not and the facilities required by all of them like school for kids , hospital for elderly people , restaurants for bachelors etc. This project aims to use all the above information and decide the best location for residence.

1.3 Interest

People shifting to Bengaluru from other places or people changing the location inside Bengaluru will be very much interested in knowing the best suitable location for them. Students and IT professionals would be the most interested people in this project.

2.Data

The postal code data of Bengaluru was obtained from the website
https://www.mapsofindia.com/pincode/india/karnataka/bangalore/ .

The above website has the data of Loaction, Postal Code , District , State .

The required data was obtained from the website.

The latitude and longitude data of the locations were obtained by using the GeoPy library of Python.

The details of the venues were obtained by using "Foursqure API" . The Fourquare API is a RESTful API and is currently used by 100,000 developers and is used by many companies like Apple Maps , Uber , Snapchat etc. Every developer has a unique CLIENT ID and CLIENT SECRET which is used for making calls to the Foursqaure Database. The data provide by Foursquare also includes the category of the venue with a lots of other information like latitude and longitude of venues . The category of a venue will tell us decide that for what kind of people is that venue useful. The project will check the category of all the venues within the given radius of a location and thus assigning the each category to a particular group of people , for example , School is for kids , College and University of Senior Students , Restaurants , Pubs , for Bachelors as well as married , Therapy and Massage Centres for Elderly people , similarly all the categories in the received data will be assigned to group of peoples and then using a combination of all of this to suggest the best location where all the required venue categories are available.