Analyzing Neighborhoods of Chennai for starting a New Restaurant.

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# Introduction

**CHENNAI** is the capital of Tamil Nadu. It is one of the most important metros in India. The population of Chennai is around 71 lakhs! The region around Chennai has served as an important administrative, military, and economic center for many centuries. Chennai is located on the south–eastern coast of India in the north–eastern part of Tamil Nadu on a flat coastal plain known as the Eastern Coastal Plains attracts many visitors either as tourists or as part of its large workforce. The vast majority claim Chennai is one of the best cities in India. The city is full of restaurants serving thousands of hungry customers, every day. The diversity in the population of the city has brought in a vast diversity in food habits of people. In this project we will study the neighborhoods and make recommendations accordingly.

# Business Problem

Our client is an investor who is interested in investing in a restaurant in Chennai. They have approached us to study the market and suggest them a location in one of the neighborhoods which would be in best interest of the business. Our main objectives of this project would be to extract and analyze right data about various neighborhoods of Chennai using various data science techniques and suggest our client a fitting location for their restaurant.

# Data

In order to achieve our final goal, we will need the following data:

• Neighbourhoods of Chennai.

• Geographical coordinates of the neighbourhoods.

• Venue data from FourSquare.

# Neighbourhoods Data

This data was extracted from Areas of Chennai Wikipedia page (https://en.wikipedia.org/wiki/Category:Suburbs\_of\_Chennai) using web scraping with BeautifulSoup library in Python. This will give us a detailed list of neighbourhoods present in Chennai.

# Geographical Coordinates

Later, the geographical coordinates of various naighbourhoods were extracted using GeoPy library in Python. Geographical coordinates are necessary for plotting maps during the project for visualizing our data. After using GeoPy we added two columns to our dataframe with latitude and longitude information of each neighbourhood as shown below:

A screenshot of a cell phone

Description automatically generated

# Venue Data from FourSquare

Later we extracted venue data using FourSquare API. This venue data was used to study the venues in various neighbourhoods in Chennai. This data provided important details of various restaurants in the area and helped us understand the competition. This data was very important because it helped us draw the main conclusion of the project.