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PREDICTING THE BEST WESTERN SUBURBS IN MELBOURNE, AUSTRALIA TO OPEN A NEW FRANCHISE FOR AN INDIAN RESTAURANT



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1. Introduction

As part of the IBM Data Science professional program project, I have reached out to one of my close acquaintance who is the restaurant owner of INKA Australia <https://www.inkarestaurant.com.au/> and will be doing analysis on the best western suburbs in Melbourne, Australia chosen by the management to expand their business. This is a real time example for which I will be performing analysis and advising the management as to which would be the best suburb from the 3 councils (Hobsons Bay, Brimbank, Wyndham)

1.1. Background

INKA Australia is one of the Indian restaurants which is located in the inner suburbs (Hawthorn) of Melbourne, Australia. During one of the conversations, the restaurant management have expressed their plans of expansion of their business to Western Suburbs in Melbourne.

1.2. Business Problem

Since expanding their restaurant business to other suburbs would be a cost and risk-based plan for the management, they have selected 3 councils i.e, **Hobsons Bay, Brimbank and Wyndham** but again there is challenge for them to select out of 60 suburbs as to which would be the best suburb for the setup. In this project, I will go through step by step process to make a decision based on the data that might contribute to determine the feasible location to open the Indian restaurant.

We will analyse the localities in the western suburbs in Melbourne to identify the most profitable suburb since the success of the restaurant depends on the nearby venues and categories.

In this project, I will go through all the process and will provide a conclusion whether the analysis can be leveraged by the business stakeholders to make their decisions.

2. Data Requirements

Few Data components are deemed as key factors in selecting the restaurant location We need to analyse the councils' data, geo-location about the 3 chosen councils as the management has already made up their mind about the councils. Throughout the assignment, I will be using missing value imputation, Foursquare API, Folium map and k-mean clustering.

2.1. Data Sources

- I will be downloading the information from the site [Melbourne, Victoria Location data](#) which will make my analysis handy, as it has all the relevant information for the project. Geo-locational information (latitude and longitude) about that specific locality and the suburbs
- Data about different venues in different localities based on the suburb under the local councils.
- Foursquare API locational information to be used. (basic and advanced information about that venue)