

# IBM

## APPLIED DATA SCIENCE CAPSTONE

### INTRODUCTION

This is a capstone project for IBM Data Science Professional Certificate. For this project I will be focusing extensively on Scarborough Toronto Canada.

Scarborough is a popular destination for new immigrants in Canada to reside. As a result, it is one of the most diverse and multicultural areas in the Greater Toronto Area, being home to various religious groups and places of worship. It includes a number of natural landmarks, including the Toronto Zoo, Rouge Park and the Scarborough Bluffs.

For this project, I would be looking at Scarborough Toronto and the exciting and common places or venues that new immigrants can visit to easily get accustomed to their new environment. This is because Scarborough is a large, multicultural area that contains the Scarborough Bluffs, huge cliffs overlooking Lake Ontario, lined with parks, beaches, and hiking trails. Inland, the sprawling Toronto Zoo features global animal pavilions, close-up encounters, and a wildlife health center. The area is also known for its diverse spread of restaurants, including regional Southeast Asian, Chinese, and Indian cuisine.

This project is aimed to help new immigrants from different parts of the world relocating to Scarborough get accustomed to their new environment by knowing the common venues around like restaurants, beaches, parks etc.

## **BUSINESS PROBLEM**

The objective of this capstone project is to find common venues around the Scarborough Neighborhoods. By using Wikipedia as our data source and data science tools python, pandas and beautiful soup for web scraping. By also using Foursquare API to get venue data on restaurants, parks, beaches, worship centers around the Scarborough Neighborhoods, this project is aimed at helping new immigrants get accustomed to their environment in time and also to citizens whether or not to visit Scarborough Toronto Canada.

## **TARGET AUDIENCE**

To help new immigrants who just moved to Scarborough know their surroundings and also help citizens of other countries who are looking to visit or relocate to Scarborough know the different venues around there and make their decision

# **DATA SECTION**

## **DATA SOURCE**

To solve this problem, we will need below data:

- List of neighborhoods in Toronto, Canada
- Latitude and Longitude of these Scarborough Neighborhood
- Venue data related to restaurants, worship centers etc. around Scarborough.

## DATA EXTRACTION

- Scrapping of Toronto neighborhoods via Wikipedia
- Getting Latitude and Longitude data of Scarborough neighborhood via

Geocoder package

- Using Foursquare API to get venue data related to these

Neighborhoods around Scarborough Toronto Canada.