**ICE CREAM SHOP RECOMMENDER SYSTEM**

* IBM Applied Data Science Capstone Project

**INTRODUCTION :**

**PROBLEM:**

To develop a recommender system that will help the restaurant manager to find the best suitable place to open an Ice Cream Shop.

**PROBLEM BACKGROUND:**

Toronto is the provincial capital of Ontario and the most populous city in Canada, with estimated population of 2,956,024 and an estimated population of 6,341,935 in the Toronto region. Toronto is an International centre of business, finance, arts, and culture. Its large population of immigrants from around the globe has also made Toronto one of the most multicultural and cosmopolitan cities in the world.

The city has many restaurants, coffee shops, cafe, hotels. The variety of food items are provided by these shops. One of the popular item is an Ice Cream. Thus, there are many Ice Cream Shops in the various areas of the city. Therefore, if someone decides to open an Ice Cream Shop in the city, he would select the best suitable place for the shop. To get the information about this suitable place, the recommender system can be used. This recommender system will get the data, analyze and visualize it; and then provide the best place to open a shop or restaurant.

**PROBLEM DESCRIPTION:**

If the manager decides to open an Ice Cream Shop in Toronto, then following questions must be addressed –

1. Which place is the most suitable and popular for the Ice Cream Shop ?
2. What type of Ice Cream should be provided ? What type is preferred by people in that area ?
3. What type of people live in that area ( students, company employees, etc ) ?
4. How many similar shops are present in that area ?
5. What other specialities should be provided to attract customers ?
6. What should be the cost of the ice cream provided ?

To get answers of above questions, a recommender system can be implemented. This system can help the managers to decide the best place to open a Ice Cream Shop based on the rankings of places.

The recommender system should be able to answer the all questions and provide best solution. It should provide – popular items in that area, target audience, their average income, cost estimation, etc.

**TARGET AUDIENCE:**

Target audience for this system are the managers or people who want to open an Ice Cream Shop in the specific city or area. These people expect the place which is most popular and well known in the city. They also need the information about popular items, categories, other specialities, etc. Thus using this recommendation system, the managers can decide the most suitable place for the Ice Cream Shop.