Popular Dishes and Restaurant Recommendation System Project

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1. Abstract

Nowadays many people are ordering food online. So we are gathering a lot of data about the food items the people are ordering. Sometimes people are unaware of the restaurants when they are in an unknown place. They don't know what type of food they need and the best food items in the restaurants. The aim of the project is to build a food recommendation system in order to help people in making decisions when they are ordering food items. It will help the people to get the food they want and the restaurants to earn more profit.

2. Dataset Description

We will be using the YELP dataset which is available on Kaggle. It contains 5,200,000 user reviews and information related to 174,000 businesses. The data spans 11 metropolitan areas. We will try to recommend dishes to people based upon their food likings.

3. Project Description

We will try to apply algorithms and techniques related to data mining like pattern discovery, Clustering, Text Retrieval, Text Mining and Visualization. We will try to mine restaurant review dataset from YELP to get useful knowledge in order to help people in making decisions while ordering food. We will follow the following steps

- First we will explore the reviews in order to know what people have said about the reviews. We will also try to visualize them in order to get a better understanding of the reviews. This will also help in recommending food items to people.
- We will construct a cuisine map to understand the food habits and the similarities.
- We will use data mining techniques to discover popular dishes in a cuisine
- Then we will try to rank food items and restaurants to help users find the best food items. It depends on factors like restaurant hygiene and food quality and reviews of various users.

The basic idea is to group similar food items into groups. We will rank the dishes from different restaurants in the group. Once user selects a particular group we will try to recommend the users food items on basis of the rankings.