Cafe Recommendation System

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Abstract

The main objective of the Cafe Recommending System is to manage the details of Cafe items and prices. Here, basically, we use a Data Mining algorithm to make Food based recommendations based on the mood of the User. Based on the given data, our model analyses and manages all the information about Item Category, Prices. The purpose of this project is to build a web application that reduces the manual work of managing the Item Category, and Cafe items.

Introduction

Every person has a habit of eating food whenever they are bored or happy or any other situations. Some eat for gaining weight whereas others eat for making themselves happy. If they are sad, they eat more food. By all the research done, we can observe the emergence of a relationship between food and mental health. Generally, when a person is happy, he/she prefers to eat something spicy and the person who is depressed much likely eats chocolates(Brain gets boosted by cocoa present in it) which can increase the mind stability and the person feels stress relieving. To make our job easier, we use this project mood-based food recommendation system to easily make choices to eat depending on the current mood.

The project Cafe recommendation system is a web based application that allows the customer to choose a Book according to his/her taste. Using Interactive GUI they simply click on their current mood and that displays the Items and prices according to the selected mood. He can easily switch between the moods. The application is user friendly which benefits the majority of the people.

Literature Review

Physical activity, sleep, nutrition, heredity, and pollution all have an impact on a person's health. Small changes in nutrition, one of our most controllable variables, can have a significant impact. Due to the exponential growth in the number of available meal options, it is no longer possible to consider all of them. Employing (3D) recommendation algorithms is the only way to take into account user preferences, maximise the amount of beneficial compounds in food, and lower the number of unhealthy compounds.cf. This model is constructed using PyCharm, and the restaurants are grouped by location using the KNN algorithm. There has been a lot of study done on this and several successful applications working clean. Other works, such as, have also been completed.The system's precision, recall, and f-measure are evaluated in three scenarios: top1, top3, and top5. According to the findings, the proposed system may deliver recommendations with a precision of 92.8 percent, providing consumers with a high level of precision. Furthermore, in these areas, the system exceeds past research. We're also working on similar projects, but with a higher level of precision and proficiency.

Problem Survey

We like to eat different types of foods at different moods. For suppose, when we are happy we tend to eat foods like burgers, pizza etc. In contrast, if a person is in stress, they tend to eat lots of desserts such as bakery items and fast foods. Also, we tend to eat different types of food depending on the mood we have, like happy, sad, boredom, laziness, hunger, depression, stress, etc. Mainly, when a person is depressed they eat a lot of sweets, fried food, and mainly chocolates. Here in this project, we can also get the addresses of the restaurants to make it ease or the person to order.

APPROACH

Here in this project we have used K-means clustering to identify and recommend the food to the customer by considering a large data set (taken in "csv file").

K Means Algorithm:-

● K-Means algorithm partition the data into sub groups also called clusters. The clusters should be non overlapping with the other subgroups.

● The inter-cluster similarity between the clusters should be very low. Conversely, the intra cluster similarity will be high. These clusters form the collection of objects. The unknown data point will be assigned to the nearest cluster available.

Conclusion

Here in this project we created a web application which reads the dataset of food choices of people. They are then visualized to group them according to the intake of those foods depending on the mood of the person.The data mining technique we used in this system is K-Means, which easily sorts the relevant data.

We used the nltk tool kit to visualize the data. The user can simply click on their present mood, then the list of restaurants appears on the screen in which the relevant food choices are available. They can easily find the restaurant location as well.