Class: DATS 6103- Intro to Data Mining.

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Project Proposal

We are analyzing and applying machine learning algorithms to an Indian takeaway restaurant's dataset placed in London, UK in 2019.

a) Research topic

Raising the profit of an Indian takeaway restaurant by giving marketing suggestions of association supported by data.

b) SMART question(s)

- How likely product A will be ordered with product B?
- What is the busiest time in the day/week?
- What is the most ordered product and the least ordered?
- What is the average payment for orders?
- What is the average quantity of every product per day?
- Is there a correlation between product price and the number of total orders of each product?

c) Source of data set and observations

The dataset has more than 7000 observations and 6 columns.

Order Number: receipt number.

Order Date: the day and time of the order. Item Name: the name of the order in the menu.

Quantity: the number of orders per item for the receipt. Product Price: item price without counting the quantity. Total products: total number of items per receipt.

Data source: here

d) Link to the team's GitHub repository

Team GitHub Link: here

c) Modeling method

To determine the degree of association between two objects, we will use Apriori algorithm to extract frequent item sets.