Oxford Food Choices

Battle of the Neighbourhoods   A L McKie

Introduction

- Oxford is a world famous university city which draws hundreds of visitors each year. It's also a city where many people, especially students, live in or in the surrounding areas of Oxfordshire.

Problem to be solved:

- The purpose of this project is to help visitors to Oxford to identify and explore food venues close to the Oxford city centre based on their location, price, rating and likes so they can make an informed decision on where to visit.
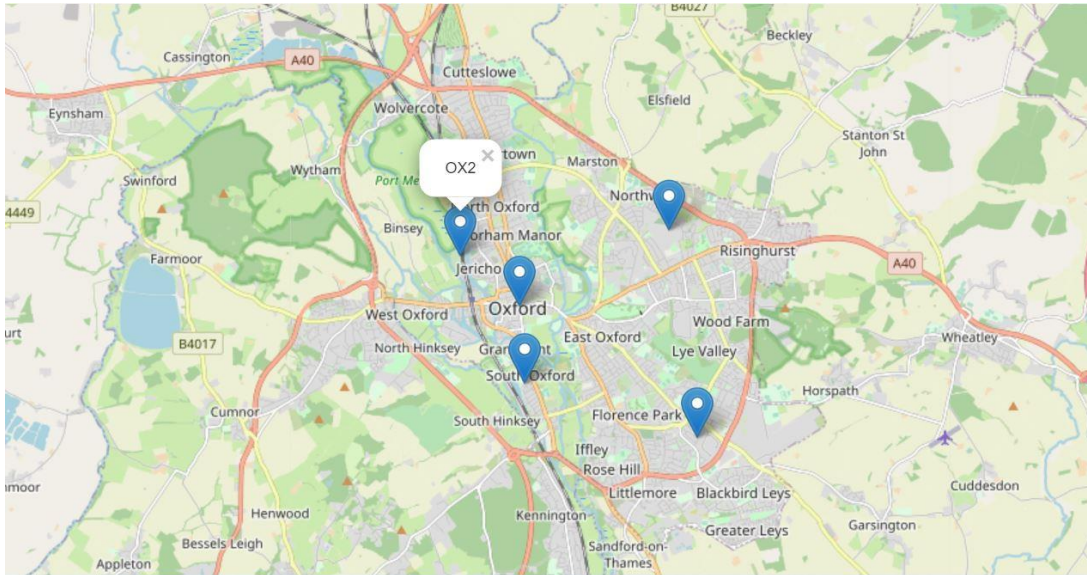
Methodology

- Scrap Oxford Postcode areas data from https://en.wikipedia.org/wiki/OX_postcode_area & get location coordinates for Oxford city (Geopy)

- Explore Foursquare API database for nearby venue information
  - Venue Name, Category, Location (Latitude & Longitude), venue ID
  - Venue Rating, Price tier & Likes

- Data cleaning and analysis techniques to visualise venue data
  - Folium interactive map
  - Matplot lib or Seaborn for bar charts, scatter charts
  - WordClouds

- K-Means Clustering algorithm to cluster venues on location, rating, price tier and number of likes.
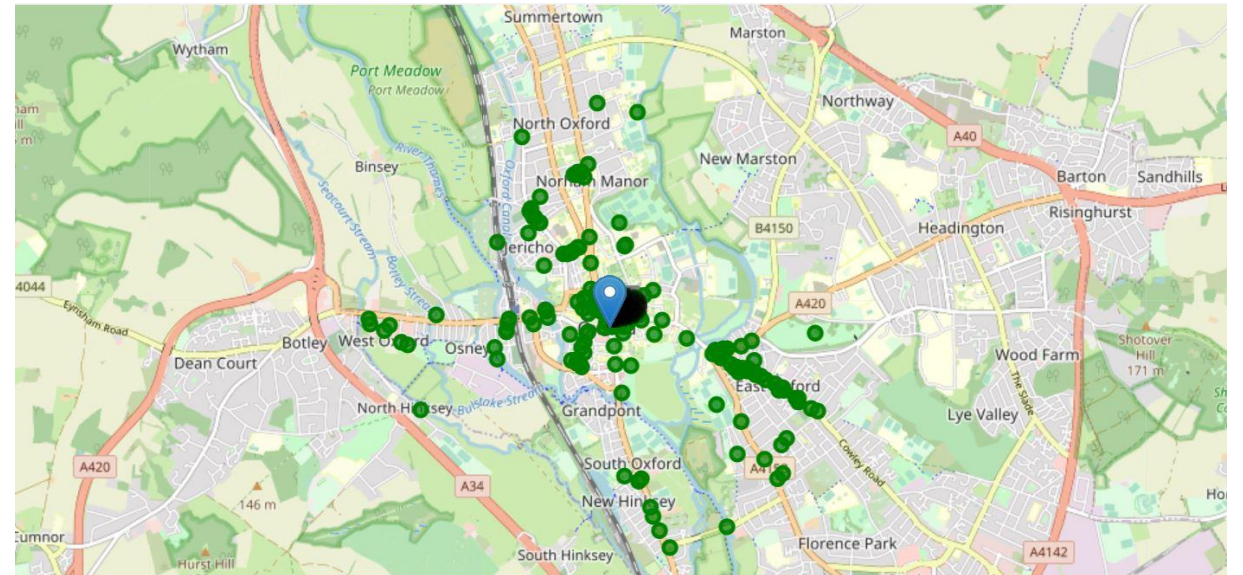
Oxford location & Foursquare API

- Oxford has 4 main postcode areas
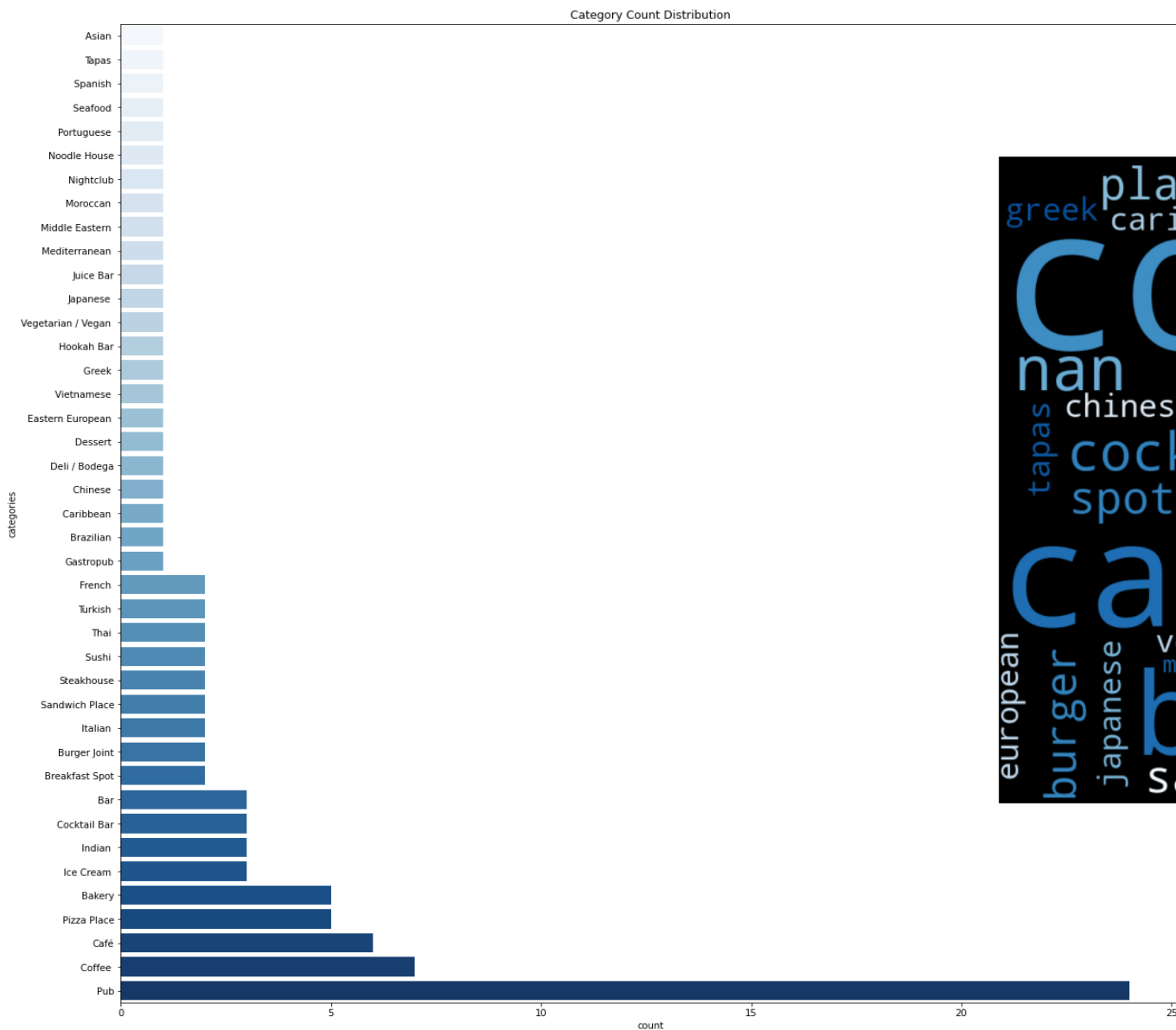- After data cleaning, 104 from 162 venues retrieved from Foursquare API
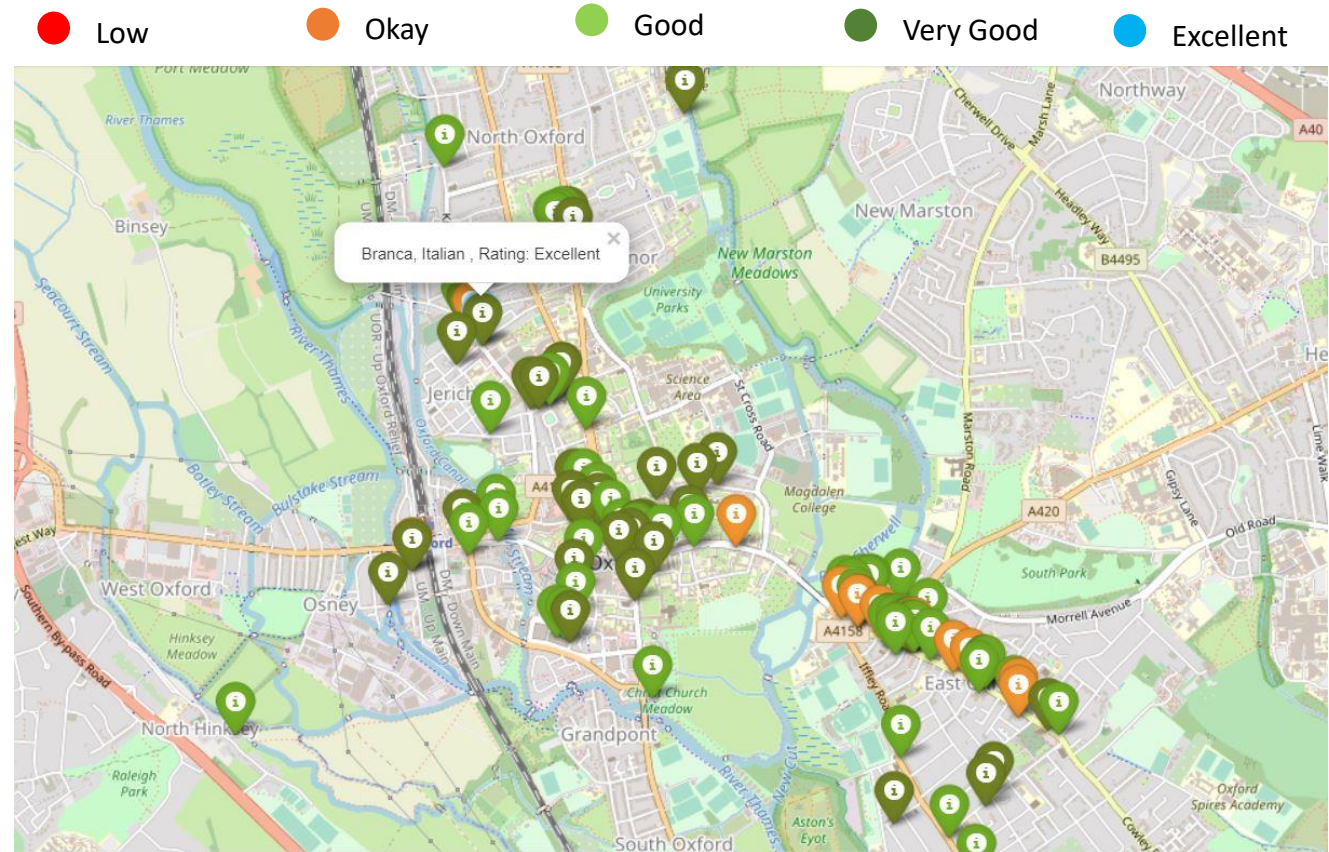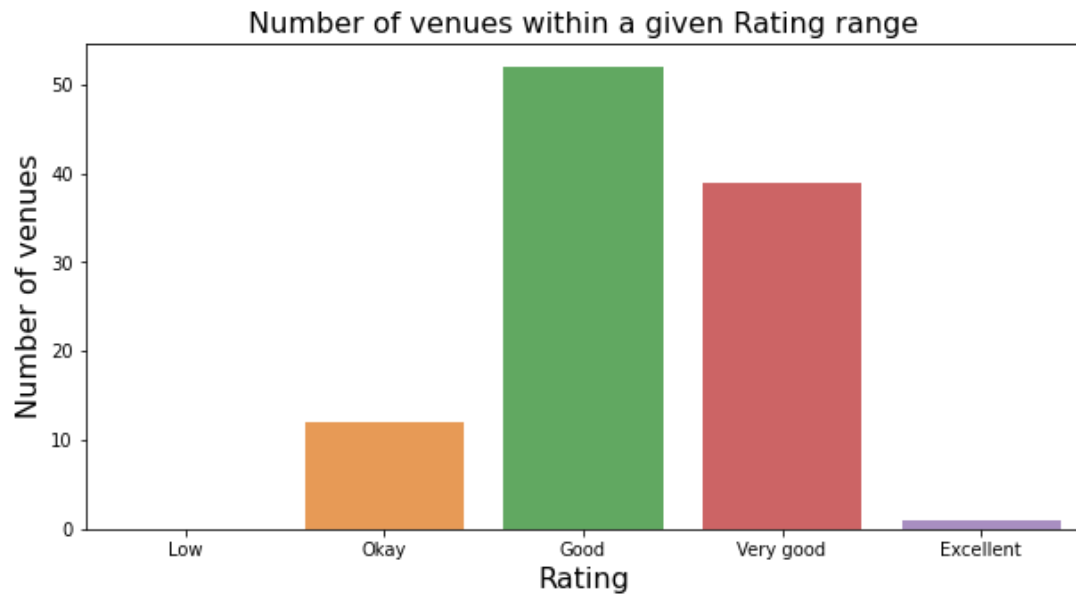
Oxford Postcode locations
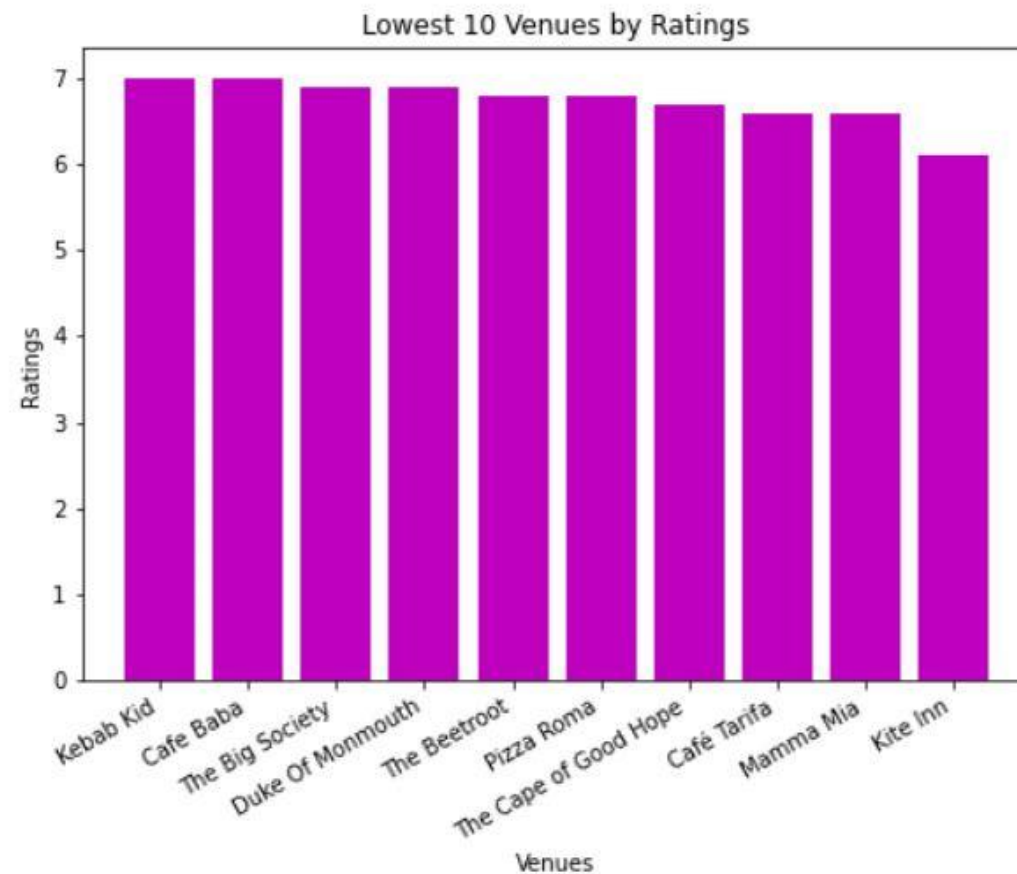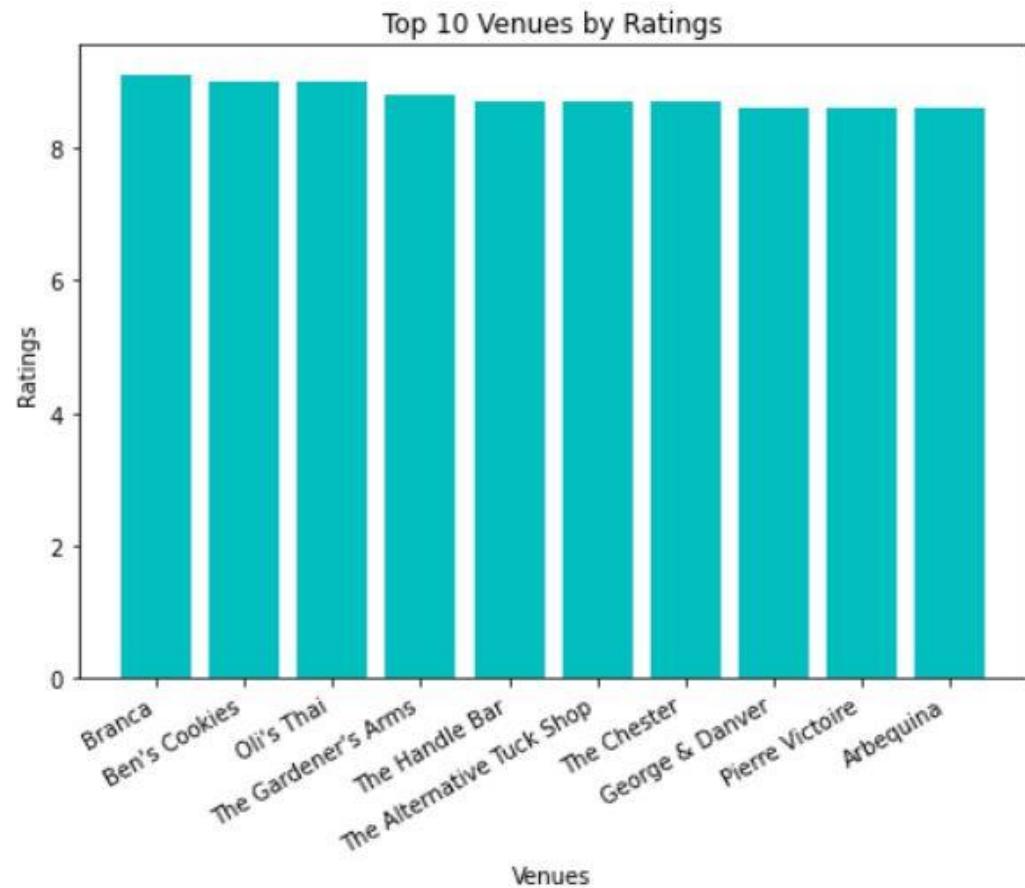
Foursquare Venues retrieved

Venue Categories

Venue Ratings

Number of venues within a given Rating range
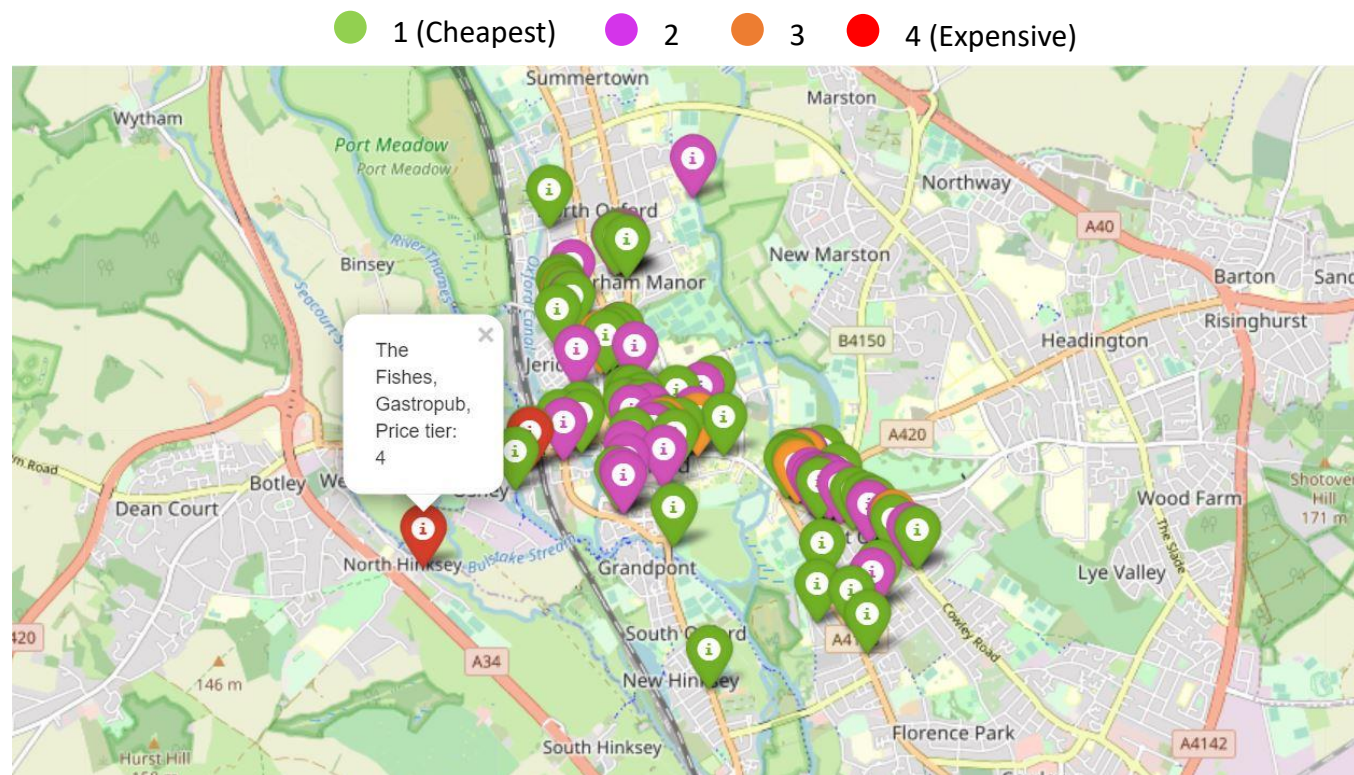
Low — Okay — Good — Very Good — Excellent

Branca, Italian , Rating: Excellent

Venues by Ratings

Venues by Price Tier

Number of venues within a given price range

Legend: 1 (Cheapest), 2, 3, 4 (Expensive)

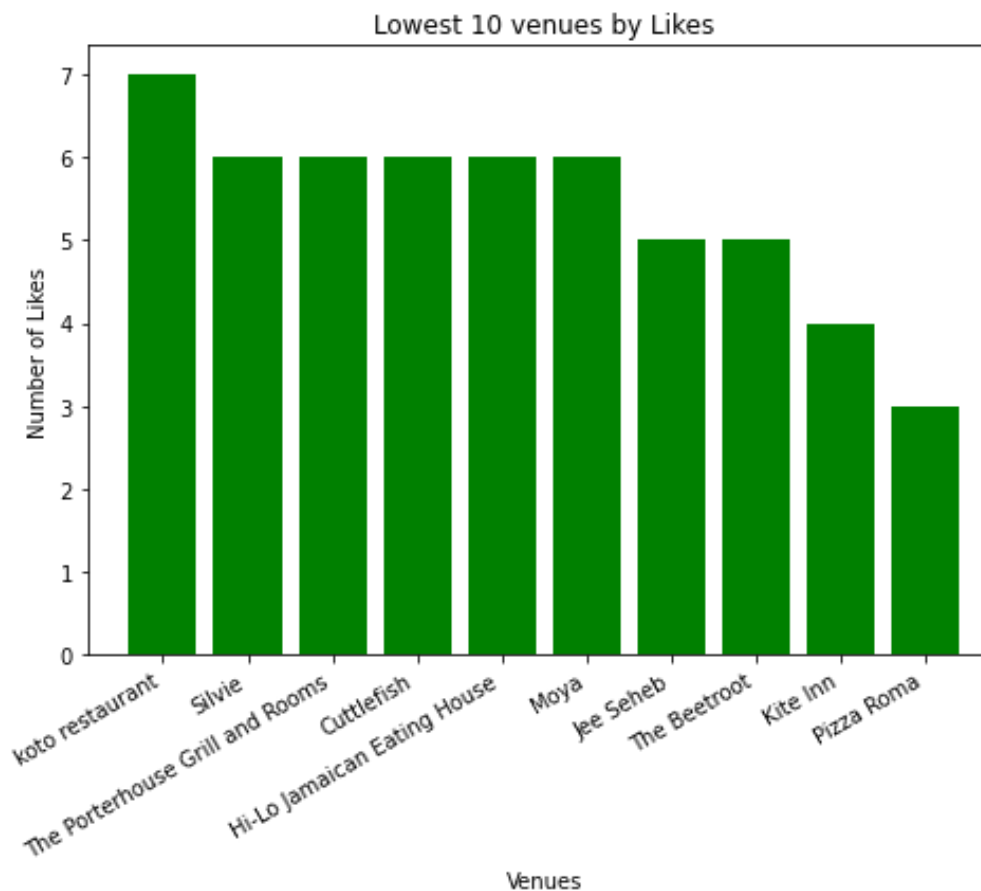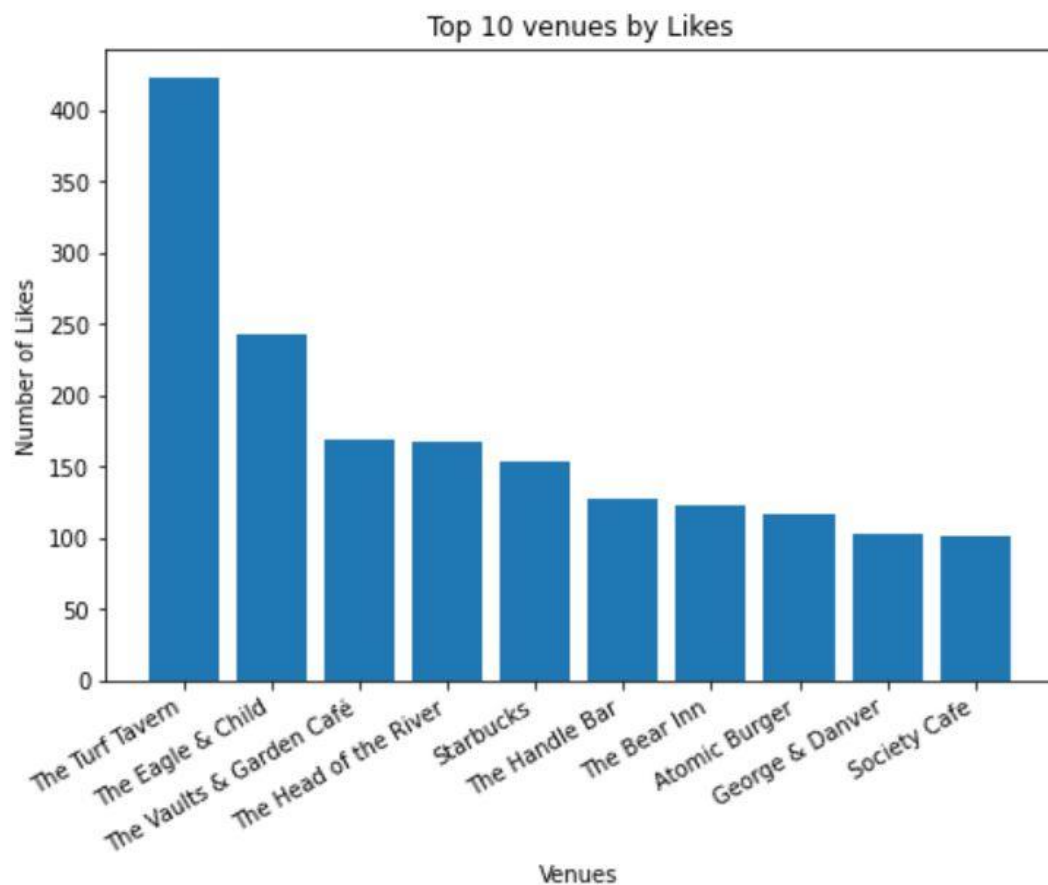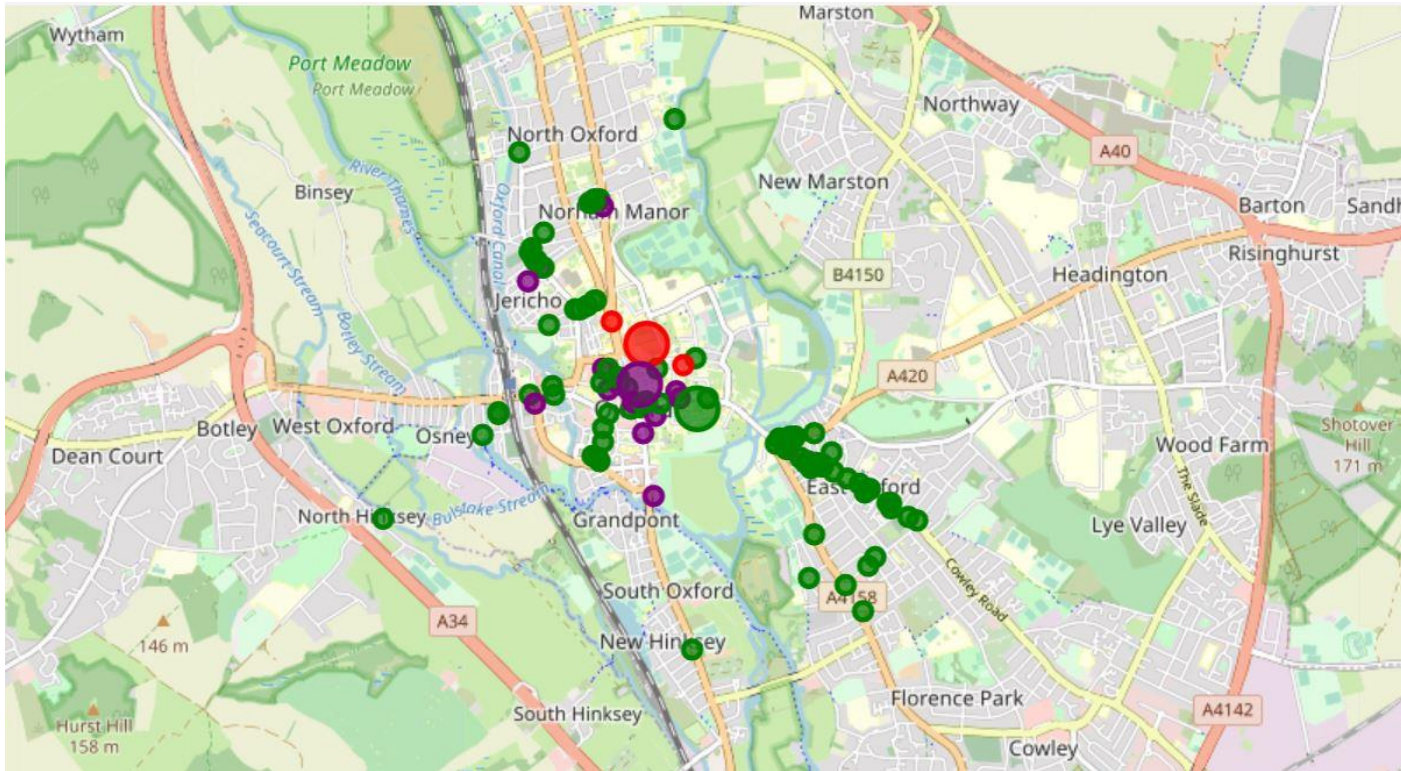The Fishes, Gastropub, Price tier: 4
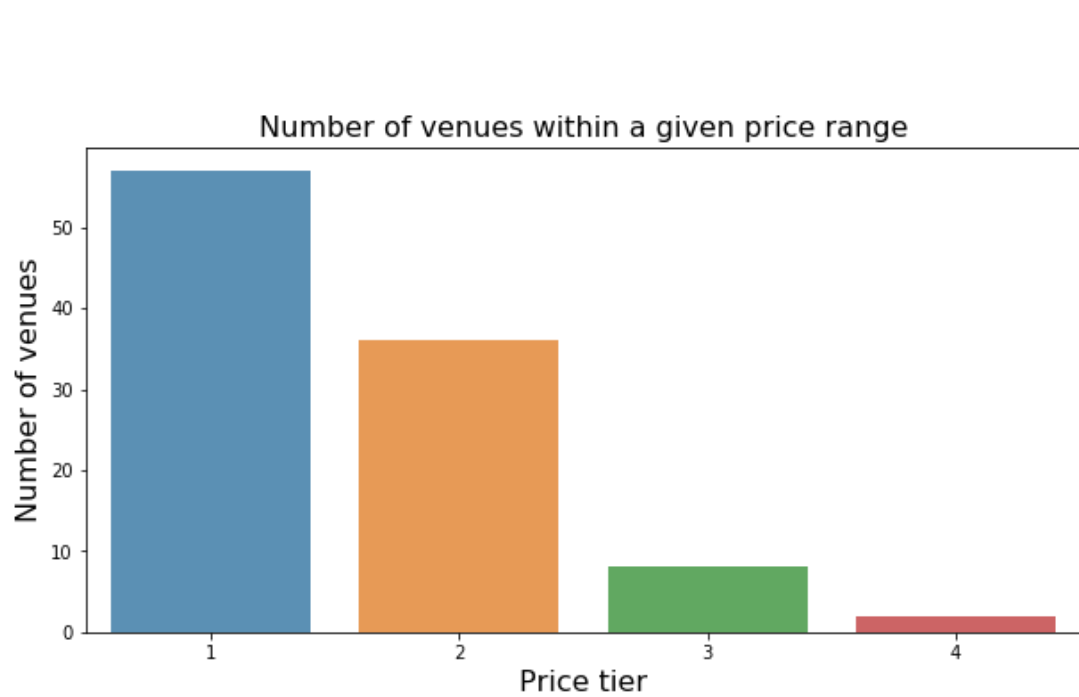
Venues by Likes

Clustered Venues

Venues clustered by location, rating, price tier and likes into 3 clusters

● Cluster 0:
- low # of likes (> 50),
- relatively cheap (avg = 1.53)
- avg rating of 7.75

● Cluster 1:
- high number of likes (< 243),
- medium priced (avg = 2.0)
- avg rating of 7.95

● Cluster 2:
- medium number of likes,
- medium priced (avg = 1.62)
- highest avg rating of 8.32

Conclusion

- Explored and analysed food venue data from Foursquare API in Oxford city, England, UK

- Pubs are the most popular venues to visit, especially the Turf Tavern and Eagle & child pubs

- There is a wide range of lower cost venues to visit depending on choice

- Venues were clustered into 3 clusters depending on their location, rating, price tier and likes.

- Visitors to and people living in Oxford have a wide variety of venues to explore depending on their preferences.