

A project on

Finding the Vegan Friendly Restaurants per Capita in UK Cities

Anjali Rao

03 June, 2023

Reboot Online Marketing Ltd

Introduction:

The rise of Veganism in the UK has prompted restaurants to include vegan friendly options on their menus. While some restaurants have adapted with great speed, others have lagged behind. This task is about finding the UK cities that are most suitable for vegans to eat out in.

Approach:

TripAdvisor website has been used as the source of data for this task. Data is compiled from the website to find out the number of restaurants in a city offering vegan options in their menus and that is divided by the population in the city.

Data extraction:

Selenium webdriver in python for firefox is used in this project for data extraction. Data extraction from TripAdvisor website is fully automated using python code. The python code first collects the links showing restaurants in top 20 cities from the url:

https://www.tripadvisor.co.uk/Restaurants-g186216-United_Kingdom.html

It is found that some links show restaurants over a broader area of the city (with 'broadened=true' in their html link), whereas others do not (with 'broadened=false' mentioned in their links). Therefore, all these links were set with the 'broadened=false' option to only get the number of restaurants inside a city, and not over a broader coverage.

The links were generated in an automated manner for different cities with the following criteria:

- 1) diet set as vegan
- 2) establishment type set as restaurant
- 3) geo_id set for different cities

For example, the link for London looks like the following:

<https://www.tripadvisor.co.uk/FindRestaurants?geo=186338&diets=10697&establishmentTypes=10591&broadened=false>

These links for different cities were then visited by selenium driver in python in an automated manner to extract the number of restaurants with vegan options available.

The data obtained about cities and the number of vegan friendly restaurants is stored in a file. Also the population in all the 20 cities in 2023 and their latitude-longitude are collected and stored in another file. The following website is used to collect population data:

<https://worldpopulationreview.com/countries/cities/united-kingdom>

These data are then used to calculate the number of vegan friendly restaurants per capita in the top 20 cities in the UK.

All the codes and data are uploaded in github repository:

https://github.com/anjalarao115/Vegan_friendly_restaurants_in_UK

Results:

The data is visualized with Tableau Desktop and a dashboard is generated. The dashboard is also uploaded in the github repository.

City - Number of Vegan Friendly Restaurants

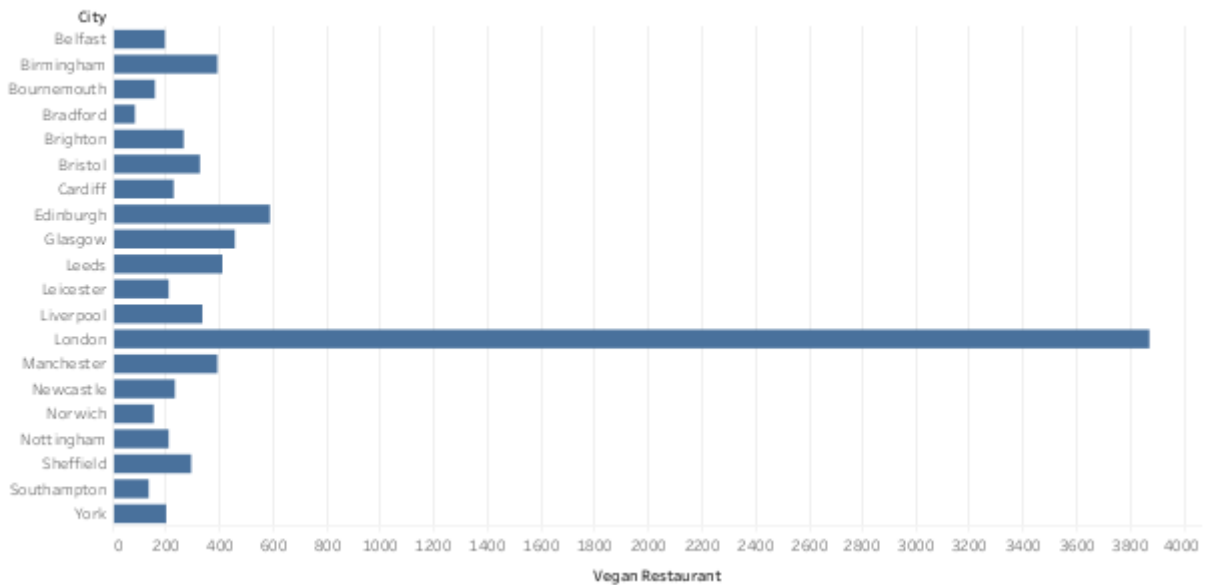


Fig 1: Number of vegan friendly restaurants in top 20 cities in the UK

Number of Vegan Friendly Restaurants by location on map

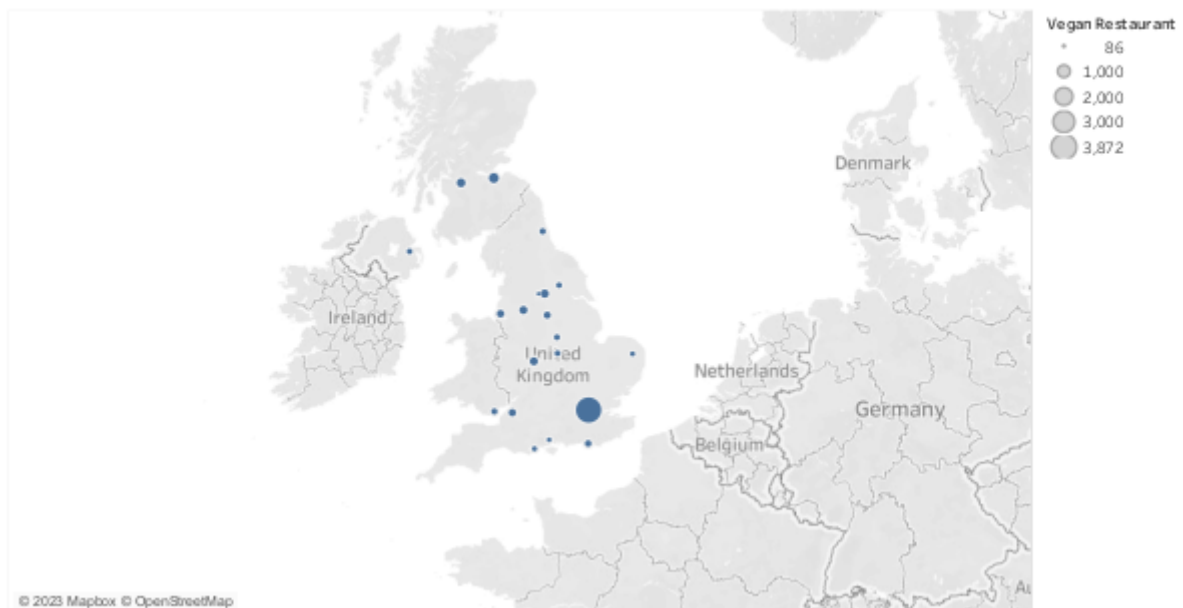


Fig 2: Map showing number of vegan friendly restaurants in top 20 UK cities

Fig 1 and 2 reveal that London has the maximum number of vegan friendly restaurants in the UK. The city offers more than 3800 vegan friendly restaurants.

However, London is also the most populated city in the UK. Therefore, the number of vegan friendly restaurants in cities per capita is studied hereafter.

City - Vegan Friendly Restaurants per Capita

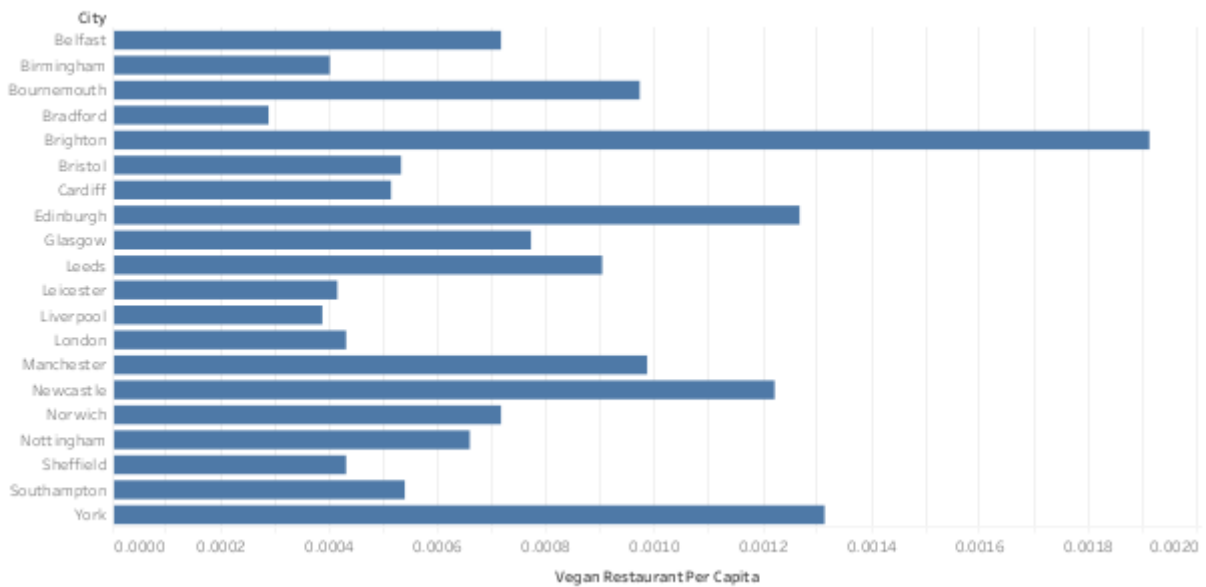


Fig 3: Vegan friendly restaurants per capita in top 20 cities in the UK

Number of vegan friendly restaurants **per capita** by location on map

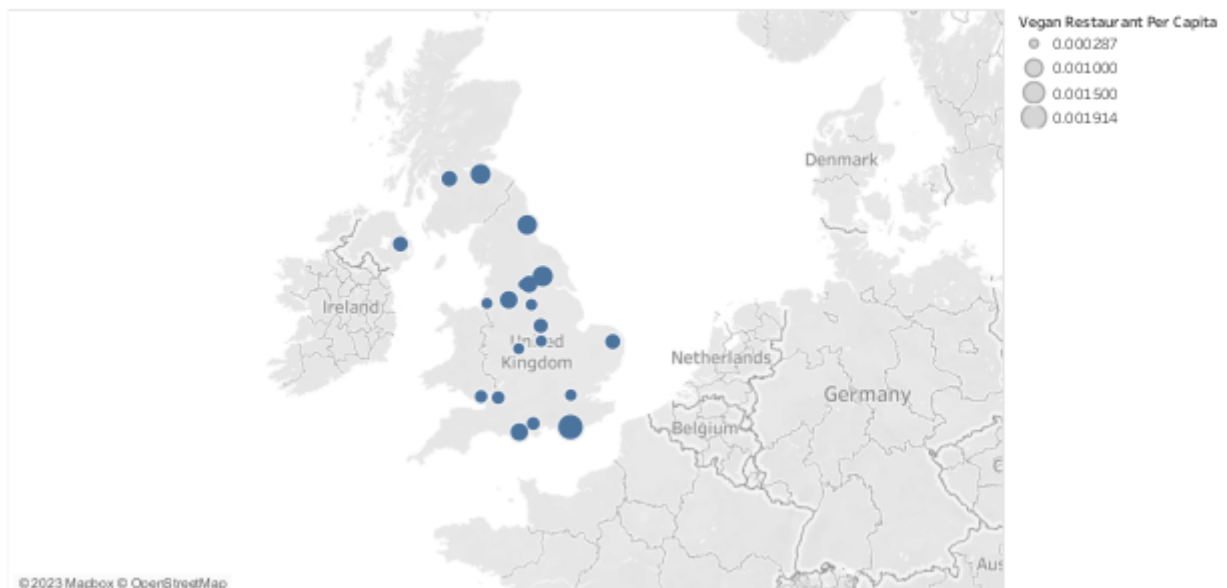


Fig 4: Map showing number of vegan friendly restaurants per capita in top 20 UK cities

Fig 3 and 4 reveal that even though London has maximum number of vegan friendly restaurants in the UK, it is found that Brighton is the city offering the highest number of vegan friendly restaurants per capita, followed by York, Edinburgh and Newcastle. Bradford has the lowest number of vegan friendly restaurants per capita among the top 20 cities in the UK.

Conclusion:

Brighton is the city with the highest number of vegan friendly restaurants per capita among the top 20 cities in the UK. The cities following Brighton are York, Edinburgh and Newcastle. Bradford offers the lowest number of vegan friendly restaurants per capita among the top 20 cities.

Acknowledgment:

I hereby acknowledge Reboot Online Marketing Ltd for giving me this opportunity to work on this project.