# Battle of Neighborhoods

Hampden v Murrayfield, Scotland

### Scope

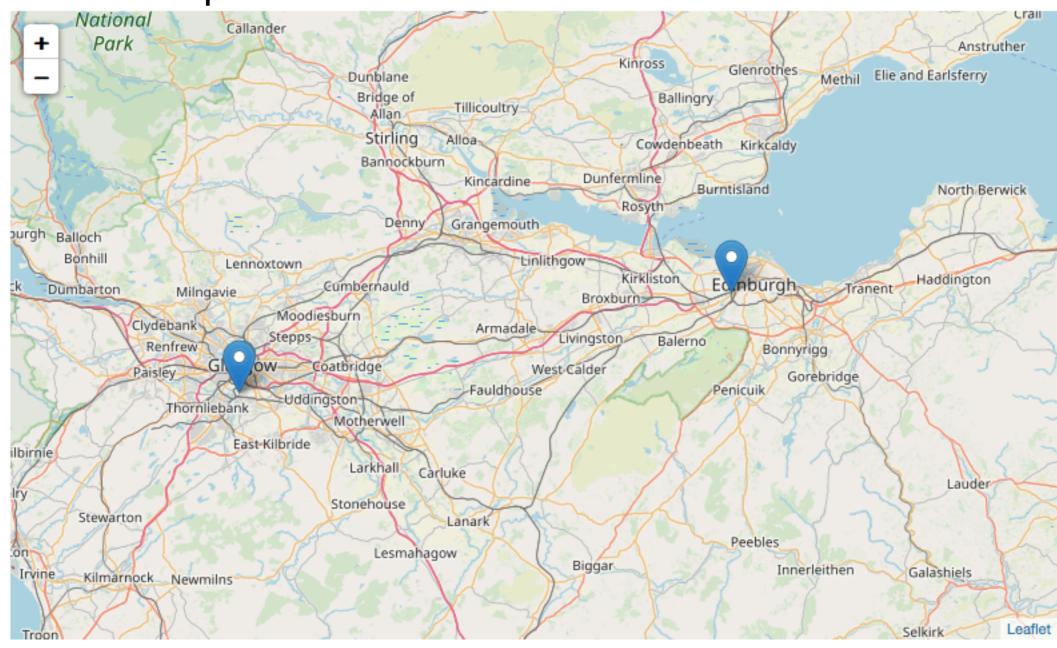
- Postcode based top stadium venue using foursquare API
- Cluster analysis of locations using k mean clustering
- Identifying locations with best amenities for football fans

## Python Packages

- Folium
- GeoPy
- JSON
- NumPy
- Pandas
- Requests
- SkLearn

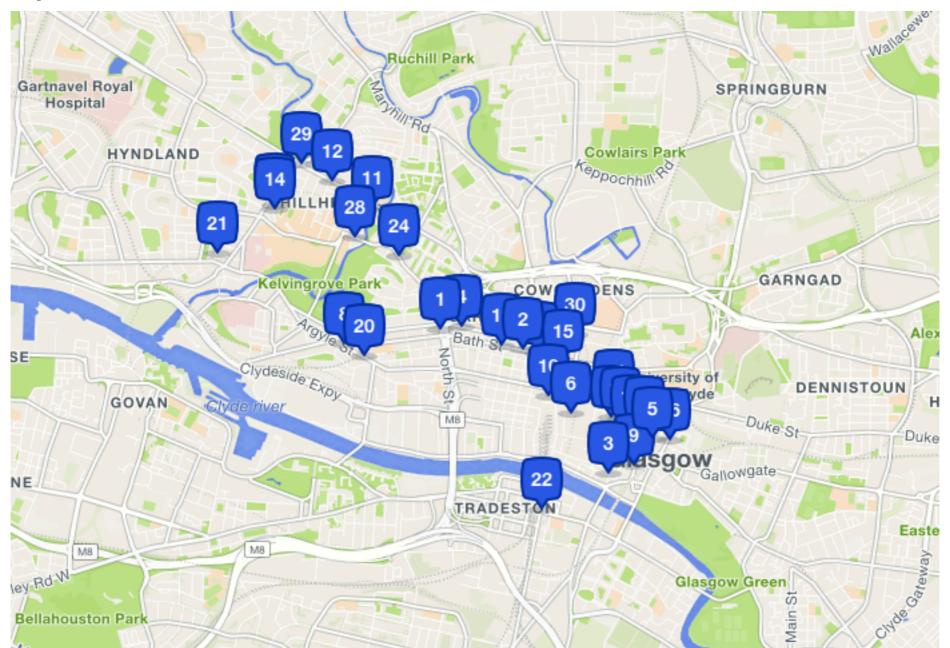
#### Locations

Folium Map



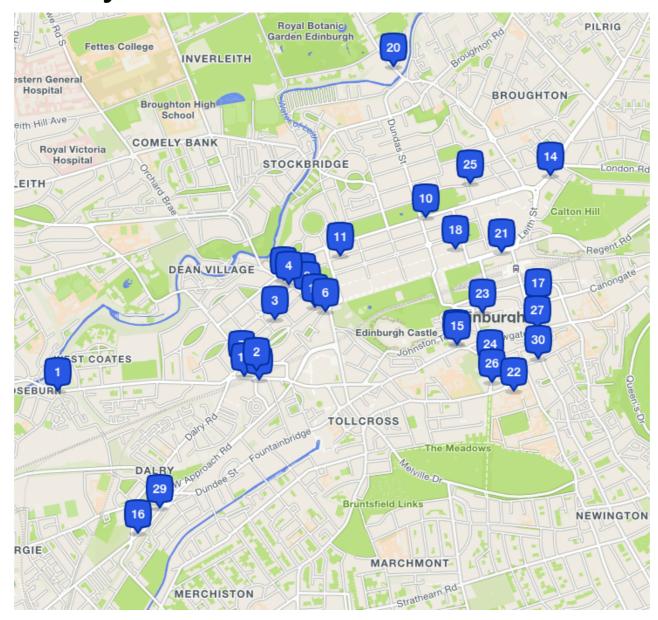
#### **Location Clusters**

 Foursquare api location data shows 30 bars near Hampden for football fans



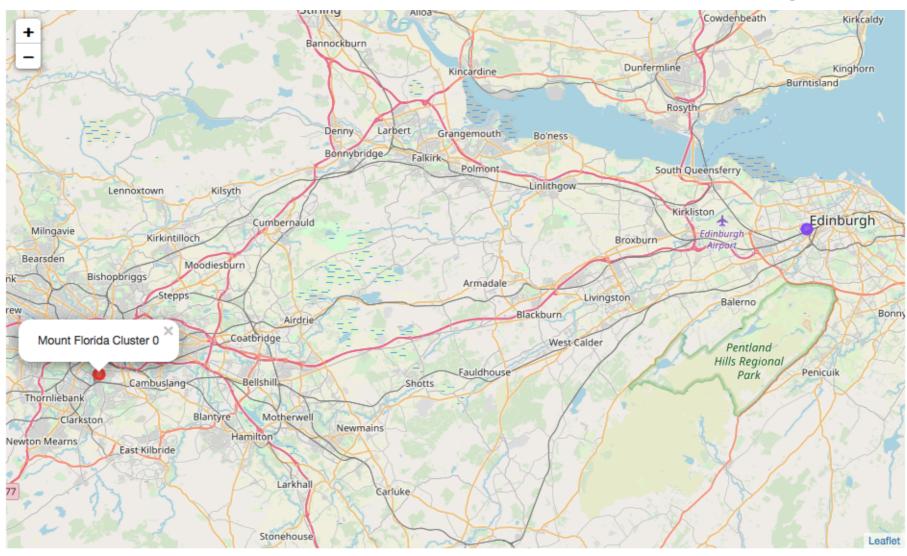
# Location Clusters (continued)

 Foursquare API Location Data shows 30 bars for football fans near Murrayfield



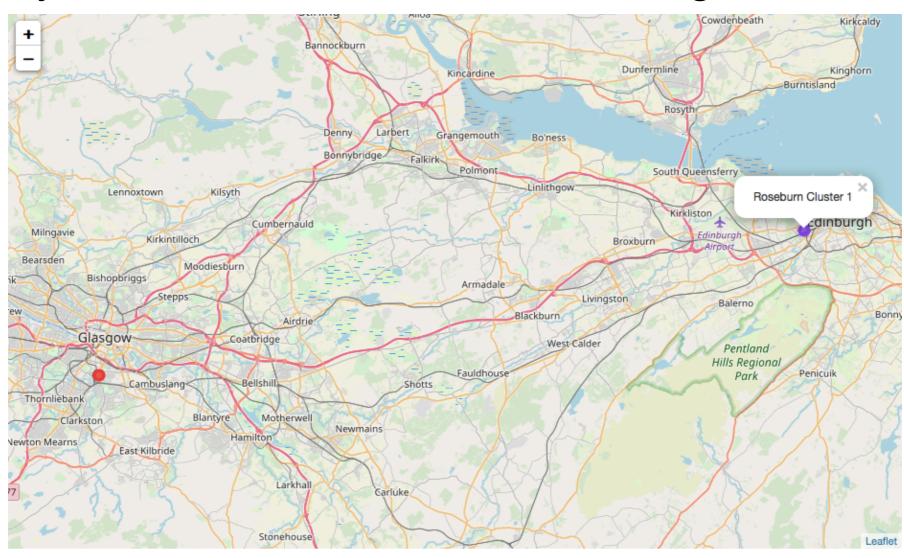
#### Location cluster 0

• Hampden Park Stadium, Mount Florida, Glasgow



#### Location cluster 1

Murrayfield Stadium, Roseburn, Edinburgh



#### **Best Location For Fans**

- Hampden Cluster 0: Data shows Hampden is better for local football fans as it has cafes, grocery stores, Indian and italian restaurants, pizza places and bars and coffee shops. For visiting football fans it has a football history museum and a park nearby for visitors to hang out in the warmer months. The bookstores nearby are unlikely to appeal to football fans
- Murrayfield Cluster 1: Data shows Murrayfield is better for visiting football fans as it has Hotels, and is better served by transport as it has tram stations and bus stops nearby. There are sports bars to appeal to all sports fans. There are also cafes, Chinese restaurants and coffee shops but less eating places than Hampden. The pharmacies and clothing stores nearby are unlikely to appeal to football fans.