EVENTS IN THE US

ticketmaster®

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Introduction

We have created an interactive map that allows users to explore a list of entertainment events (based on selected cities/markets in the United States.)

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Features

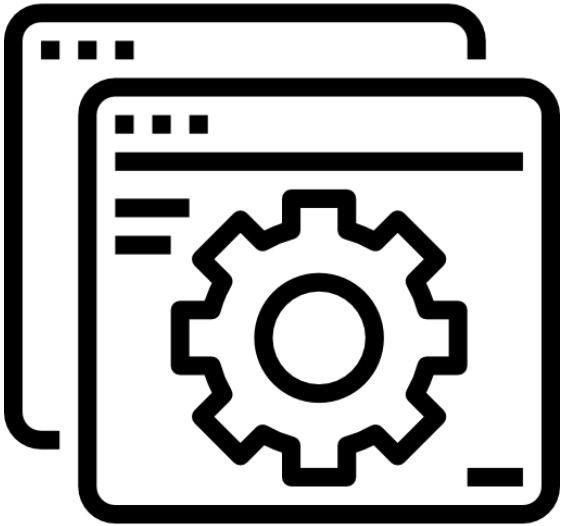
City groups in an Array for selected markets placed as markers on the map.

Hover over a marker to see the city/market name.

Click the market to zoom in and view the events in that area.

Click on the event to see the data fetched on that event.

Events fetched live via the TicketMaster API by market id



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Built With


Leaflet.js - An open-source JavaScript library for interactive maps.

TicketMaster API - To fetch event data based on city/market selection.


OpenStreetMap - Open-source map data used as a base layer for the map.

Javascript - A scripting language that is used to create dynamic and interactive content, control multimedia, animate elements, and perform a wide range of tasks on web pages

HTML - The markup language that is used to structure, layout, and give meaning to the webpage.

CSS - A stylesheet language that defines how HTML or XML documents should be visually presented on different media.

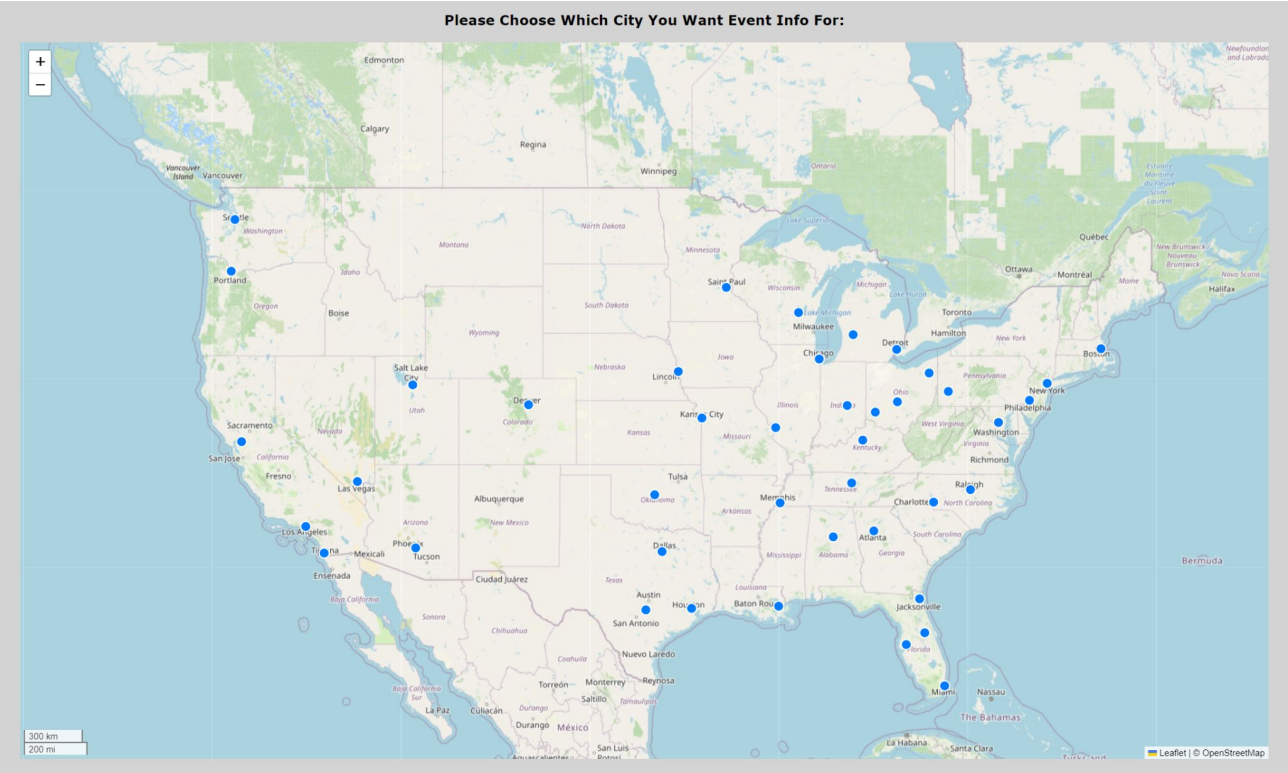
Jupyterlab- Web-based interactive development environment.

Demo

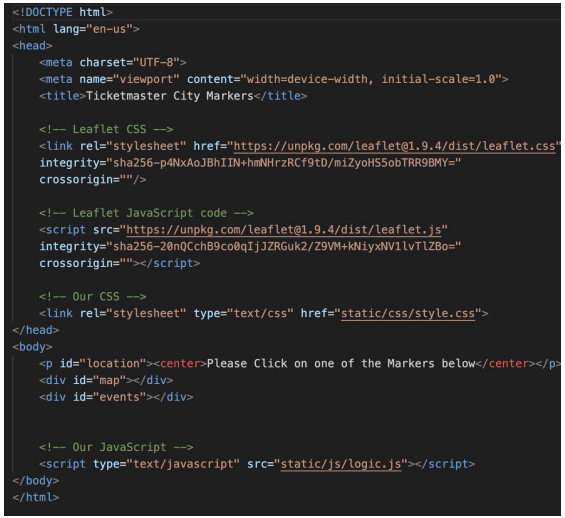
Click here to view!

Markers

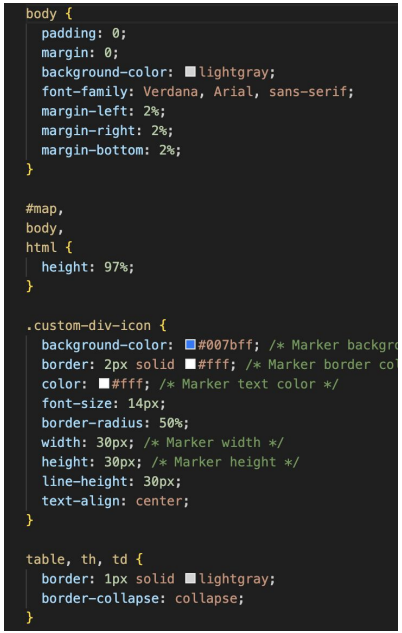
Gathering of TM metro areas and putting together the lat/long array to create the initial map



HTML & CSS



```
<!DOCTYPE html>
<html lang="en-us">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Ticketmaster City Markers</title>

    <!-- Leaflet CSS -->
    <link rel="stylesheet" href="https://unpkg.com/leaflet@1.9.4/dist/leaflet.css"
    integrity="sha256-p4NxAoJBhIIN+hmNHrzRCf9tD/miZyoHS5obTRR9BMY="
    crossorigin=""/>

    <!-- Leaflet JavaScript code -->
    <script src="https://unpkg.com/leaflet@1.9.4/dist/leaflet.js"
    integrity="sha256-20nQCchB9co0qIjJZRGuk2/Z9VM+kNiyxNV1lvTlZBo="
    crossorigin=""></script>

    <!-- Our CSS -->
    <link rel="stylesheet" type="text/css" href="static/css/style.css">
</head>
<body>
    <p id="location"><center>Please Click on one of the Markers below</center></p>
    <div id="map"></div>
    <div id="events"></div>


    <!-- Our JavaScript -->
    <script type="text/javascript" src="static/js/logic.js"></script>
</body>
</html>
```



```
body {
  padding: 0;
  margin: 0;
  background-color: lightgray;
  font-family: Verdana, Arial, sans-serif;
  margin-left: 2%;
  margin-right: 2%;
  margin-bottom: 2%;
}

#map,
body,
html {
  height: 97%;
}

.custom-div-icon {
  background-color: #007bff; /* Marker backgr
  border: 2px solid #fff; /* Marker border co
  color: #fff; /* Marker text color */
  font-size: 14px;
  border-radius: 50%;
  width: 30px; /* Marker width */
  height: 30px; /* Marker height */
  line-height: 30px;
  text-align: center;
}

table, th, td {
  border: 1px solid lightgray;
  border-collapse: collapse;
}
```

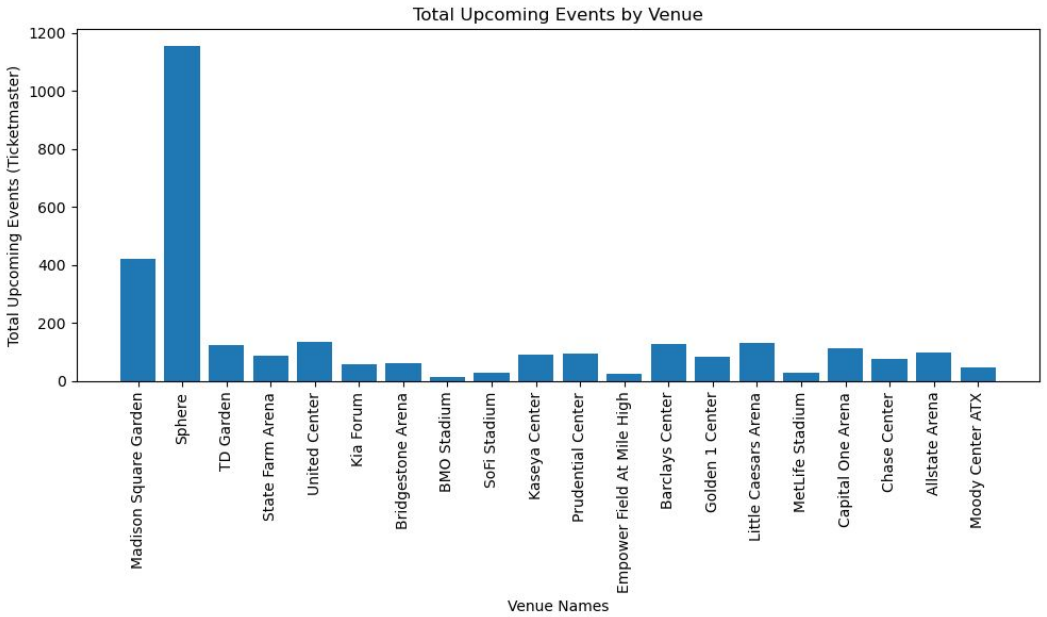
HTML

- Leaflet CSS
- Leaflet JavaScript code

style.css

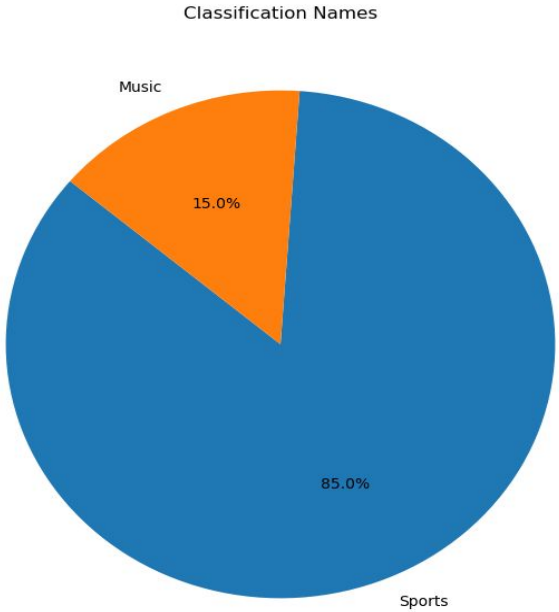
- Marker

Jupyterlab Analysis




```python
#Venue
response_venue=requests.get('https://app.ticketmaster.com/discovery/v2/venues?apikey=KiTAyb
venue_data = response_venue.json()

venue = venue_data.get("_embedded", {}).get("venues", [])  # Extract the events list
venue_list=[]
upcoming=[]



for venues in venue:
    venue_name = venues.get("name", "")  # Extract 'venue name' list for each event
    venue_count=venues.get("upcomingEvents",{}).get("ticketmaster",0)
    venue_list.append(venue_name)
    upcoming.append(venue_count)

# Create a dictionary to associate venue names with their respective total upcoming events
venue_count = dict(zip(venue_list, upcoming))
print(venue_count)

# Extract venue names and counts
venue_names = list(venue_count.keys())
venue_counts = list(venue_count.values())

# Create a bar graph
plt.figure(figsize=(10, 6))  # Adjust the figure size as needed
plt.bar(venue_names, venue_counts)

# Adding labels and title
plt.xlabel('Venue Names')
plt.ylabel('Total Upcoming Events (Ticketmaster)')
plt.title('Total Upcoming Events by Venue')

# Rotating x-axis labels for better readability
plt.xticks(rotation=90)

# Show the graph
plt.tight_layout()
plt.show()
```

Today's (10/5/2023) Events



- The other categories that Ticketmaster identifies are: Film, Arts & Theater, Music, undefined & Miscellaneous.

```
response_event=requests.get('https://app.ticketmaster.com/discovery/v2/events?apikey=KiTAybgY7A9y1TG5k2RupJBbJg
response_json = response_event.json()
```

```
# Event class for today
# Extract 'segment' names from the event data
events = response_json.get("_embedded", {}).get("events", [])  # Extract the events list
segments = []

for event in events:
    classifications = event.get("classifications", [])  # Extract 'classifications' list for each event
    #print(classifications)
    for classification in classifications:
        segment_name = classification.get("segment",{}).get("name")
        segments.append(segment_name)
# Count the occurrences of each 'segment' name
name_counts = Counter(segments)

# Creating a pie chart
plt.figure(figsize=(8, 8))
plt.pie(name_counts.values(), labels=name_counts.keys(), autopct='%1.1f%%', startangle=140)
plt.title('Classification Names')

    # Displaying the pie chart
plt.show()
```

Javascript

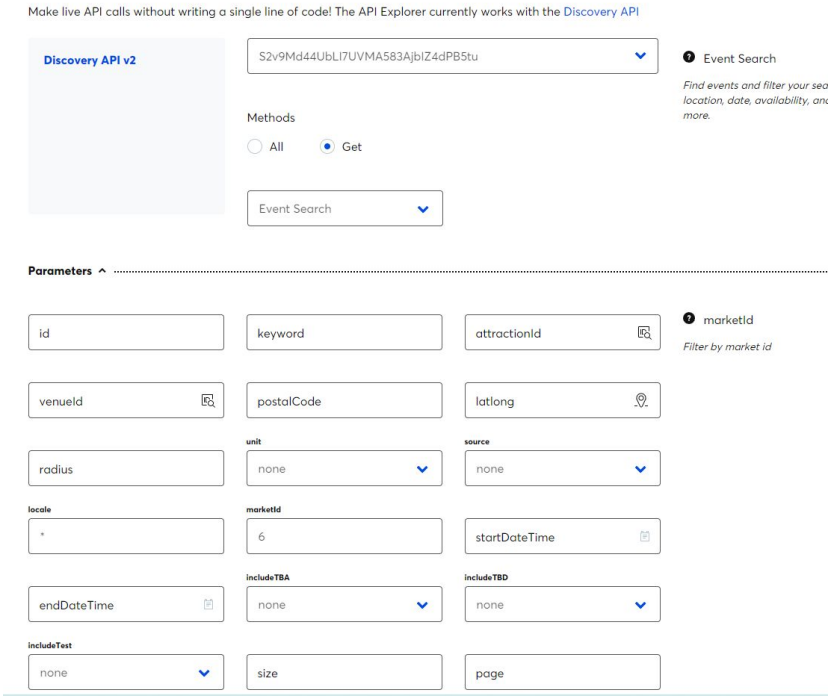
```
// Cities array data created
city_data = [
    {
        'id': 1,
        'name': 'Birmingham',
        'lat': 33.53894154,
        'lng': -86.81664397
    },
    {
        'id': 2,
        'name': 'Charlotte',
        'lat': 35.23466349,
        'lng': -80.84030215
    },
    {
        'id': 3,
        'name': 'Chicago',
        'lat': 41.90491852,
        'lng': -87.66652212
    },
    {
        'id': 4,
        'name': 'Cincinnati & Dayton',
        'lat': 39.48953605,
        'lng': -84.32655339
    },
    {
        'id': 5,
        'name': 'Dallas - Fort Worth',
```

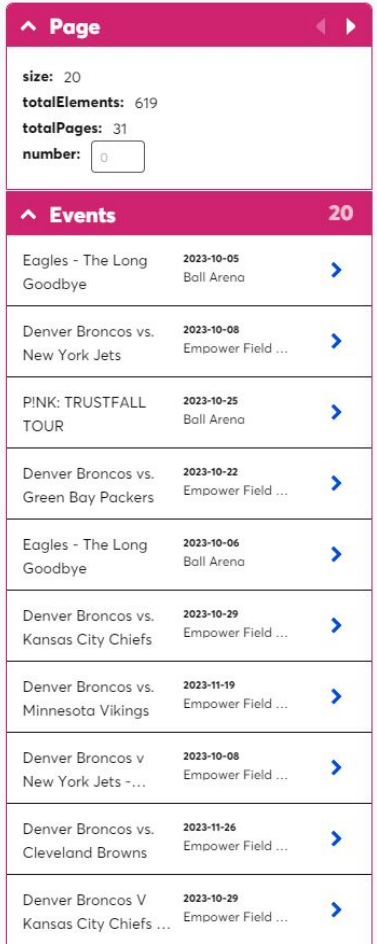
Array

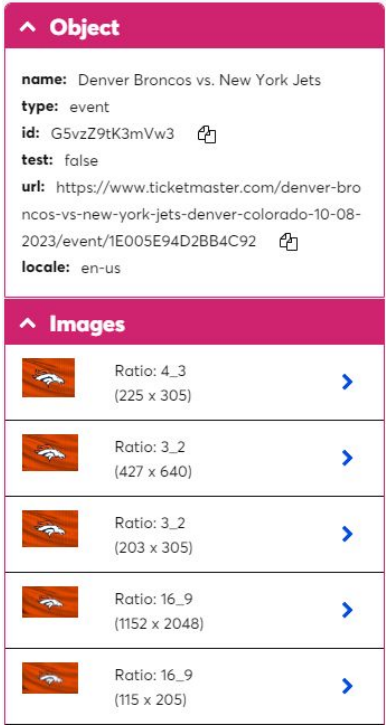
```
// Create a map object.
let myMap = L.map("map", {
    center: [40, -98],
    zoom: 5,
    fullscreenControl: true
});

// Add a tile layer.
L.tileLayer('https://{s}.tile.openstreetmap.org/{z}/{x}/{y}.png', {
    attribution: '&copy; <a href="https://www.openstreetmap.org/copyright">OpenStreetMap</a>'
}).addTo(myMap);

// Add the scale to the map
L.control.scale().addTo(myMap);

// Create a layer group for city markers.
const cityMarkerGroup = L.layerGroup().addTo(myMap);

// Function to fetch events in a city using Ticketmaster API
function getEventsInCity(id) {
    const apiKey = 'S2v9Md44UbLI7UVMA583AjbIZ4dPB5tu';

    // Define the Ticketmaster API URL to fetch events in the city
    const apiUrl = `https://app.ticketmaster.com/discovery/v2/events.json?marketId=${id}&apikey=${apiKey}&size=10`;

    fetch(apiUrl)
```

Logic

Ticketmaster API







Challenges

- Postgres database hosted on Elephant SQL / flask
- Clear events layer per city click

Next Steps

- Selection of events within the same venue
- Filters to better fit your own preferences

Thank you

Happy to answer any questions!