

# Project 4: FindMyEvent - Ticketmaster Event Discovery System

My Application finds the events happening around you and provides you the details about the events like Date, Venue, Price Range, etc. You can search the event by category, Country Code or look through events using All option

## 1. Android Application

### User Interface Components

The Android application includes the following view:

- **TextView**: For displaying event names, dates, locations, and other text information
- **EditText**: For user input when searching for events
- **RadioButtons**: For selecting search type (Category, Country Code, All Events)
- **Button**: For initiating searches and viewing tickets
- **RecyclerView**: For displaying lists of events
- **CardView**: For styling event items in the list
- **ProgressBar**: For indicating loading status
- **ScrollView**: For the details screen to accommodate varying content length

### User Input

The app requires and processes user input in multiple ways:

- Search term input via EditText. You can search for Music, Dance, Sports, etc.
- You can search by Country Code: UK, US, AU, AS, etc.
- You can also search for all events.
- The search is capped at 10 results.

### HTTP Requests

The application makes HTTP requests to the web service using OkHttp:

- Requests are executed on a background thread using AsyncTask
- Different endpoints are called based on search type (category, country, all)
- Proper error handling is implemented for network failures

### Data Parsing

The app parses JSON responses from the web service:

- Uses Gson library to convert JSON to Java objects
- Maps the response to Event model objects
- Properly handles various data formats (dates, prices, locations)

## **Information Display**

Event information is clearly displayed to the user:

- List view shows basic event information (name, date, venue, location)
- Detail view shows comprehensive information including pricing and ticket links
- Empty state and error messages are shown when appropriate

## **Repeatable Functionality**

The application allows users to:

- Perform multiple searches without restarting
- Toggle between different search types
- View event details and return to the search results

## **Demo:**

Search By All Events:

Find My Event

Search for events around the world

☐ Category(e.g Music) ☐ Country Code ☒ All

SEARCH

SACRAMENTO KINGS VS. PHOENIX SUNS

Date: 2025-04-13 at 12:30:00  
Venue: Golden 1 Center  
Location: Sacramento, California, United States Of America

Phoenix Suns vs. Golden State Warriors

Date: 2025-04-08 at 19:00:00  
Venue: PHX Arena (formerly Footprint Center)  
Location: Phoenix, Arizona, United States Of America

Phoenix Suns vs. San Antonio Spurs

Date: 2025-04-11 at 19:00:00  
Venue: PHX Arena (formerly Footprint Center)  
Location: Phoenix, Arizona, United States Of America

Phoenix Suns vs. Oklahoma City Thunder

Date: 2025-04-09 at 19:00:00  
Venue: PHX Arena (formerly Footprint Center)  
Location: Phoenix, Arizona, United States Of America

## SACRAMENTO KINGS VS. PHOENIX SUNS

**Date & Time:**

2025-04-13 at 12:30:00

**Venue:**

Golden 1 Center

**Location:**

Sacramento, California, United States Of America

**Price Range:**

Price not available

VIEW TICKETS

Search By Category:

### Find My Event

Search for events around the world

☒ Category(e.g Music) ☐ Country Code ☐ All

Enter search term

Dance

SEARCH

#### Dance Gavin Dance

Date: 2025-05-25 at 18:00:00

Venue: Palladium-MA

Location: Worcester, Massachusetts, United States Of America

#### Dance Gavin Dance

Date: 2025-05-29 at 18:00:00

Venue: History

Location: Toronto, Can

#### Shinedown: Dance, Kid, Dance

Date: 2025-04-25 at 19:00:00

Venue: Wells Fargo Arena

Location: Des Moines, Iowa, United States Of America

#### Shinedown: Dance, Kid, Dance

Date: 2025-04-26 at 19:00:00

Venue: CHI Health Center Omaha

**Dance Gavin Dance**

**Date & Time:**  
2025-05-25 at 18:00:00

**Venue:**  
Palladium-MA

**Location:**  
Worcester, Massachusetts, United States Of America

**Price Range:**  
Price not available

VIEW TICKETS

Search By Country Code:

## Find My Event

Search for events around the world

☐ Category(e.g Music) ☒ Country Code ☐ All

Enter search term

UK

SEARCH

### Silver Ballot - Arsenal v Real Madrid CF

Date: 2025-04-08 at 20:00:00

Venue: The Emirates Stadium

Location: The United Kingdom

### Red Ballot - Arsenal v Real Madrid CF

Date: 2025-04-08 at 20:00:00

Venue: The Emirates Stadium

Location: The United Kingdom

### Silver Ballot - Arsenal v Brentford

Date: 2025-04-12 at 15:00:00

Venue: The Emirates Stadium

Location: The United Kingdom

### Red Ballot - Arsenal v Brentford

Date: 2025-04-12 at 15:00:00

Venue: The Emirates Stadium

Location: The United Kingdom

## Silver Ballot - Arsenal v Real Madrid CF

### Date & Time:

2025-04-08 at 20:00:00

### Venue:

The Emirates Stadium

### Location:

The United Kingdom

### Price Range:

Price not available

VIEW TICKETS

## **2. Web Service**

### **API Implementation**

The web service implements a RESTful API that:

- Receives HTTP requests from the Android application
- Processes parameters (searchType, query)
- Executes business logic to fetch data from Ticketmaster using Ticketmaster API
- Returns structured JSON responses

### **Business Logic**

The web service implements below business logic:

- Fetches event data from the Ticketmaster API
- Filters and processes the response
- Returns only the necessary information to the Android app
- Handles various search types (name/category, country, all events)

### **Third-Party API Integration**

The web service successfully integrates with the Ticketmaster API:

- Makes HTTP requests to Ticketmaster endpoints
- Passes appropriate parameters based on user search
- Processes XML/JSON responses from Ticketmaster
- Handles rate limiting and API errors appropriately

### **Response Formatting**

The web service formats responses appropriately:

- Returns JSON-formatted data to the Android app
- Includes only necessary information (no extraneous data)
- Properly structures the response for easy parsing
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## **3. Logging and Dashboard**

## Information Logging

The web service logs below pieces of information for each request/reply:

1. Client IP address
2. Search type
3. Search Query
4. Timestamp of request/response
5. Response status and time
6. Number of results returned

## Data Storage

All logs are stored persistently in MongoDB:

- Log entries include request and response details
- Data is properly structured for analytics
- Timestamps allow for chronological analysis

## Operations Analytics

The dashboard displays at least 3 interesting analytics:

1. Most popular search terms
2. Average response time for queries
3. Distribution of search types (category, country, all)

## Log Display

The dashboard provides a formatted display of logs:

- Shows detailed information for each request
- Formats data in a human-readable way (not as JSON or XML)
- Allows viewing historical activity

## Web Service Landing page:



# Ticketmaster API Web Service

## API Endpoints

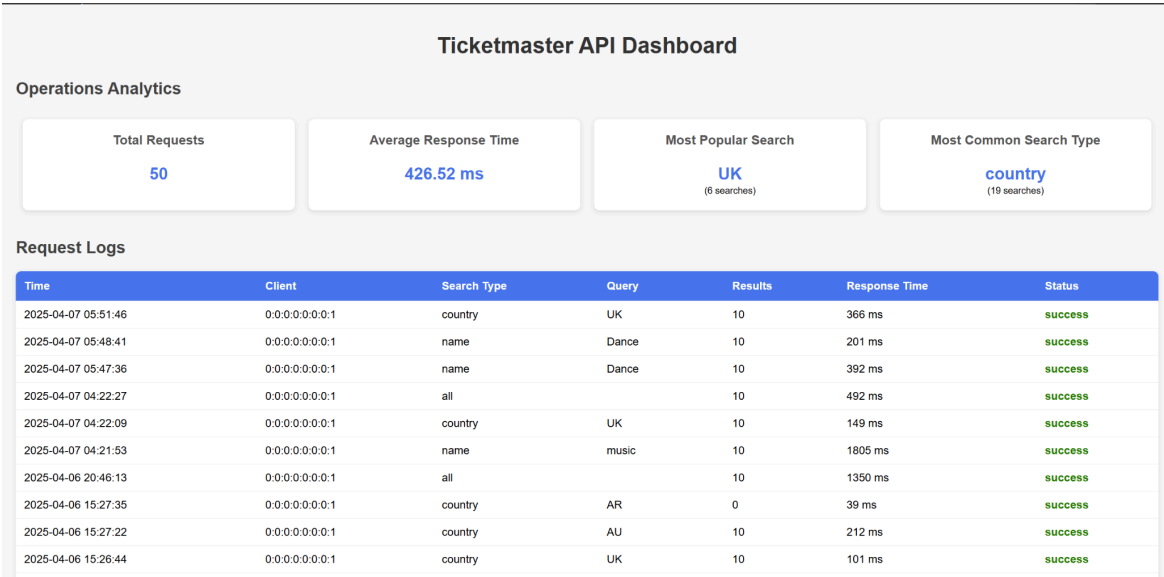
This service provides access to Ticketmaster event data.

- **GET /events** - Get all events
- **GET /events?searchType=name&query=YOUR\_QUERY** - Search events by name
- **GET /events?searchType=country&query=COUNTRY\_CODE** - Search events by country

## Dashboard

View analytics and logs for the API service:

[Open Dashboard](#)



Dashboard that maintain logs and other parameter.

## 4. Deployment

The web service is successfully deployed to GitHub Codespaces using Docker

To run the CodeSpace you will have to create a new codespace and update the base url in the ApiService file in the Android app.

Remember to make the port public once the codespace is running.

```
// Replace with your deployed web service URL
1 usage
private static final String BASE_URL = "https://symmetrical-spork-x4rr7grwxrxh6995-8080.app.github.dev/";
```