

## Ethical Considerations

Our three data sources come from Hotels.com, Ticketmaster API, and Google Events API.

### Hotels.com

Hotels.com Terms of Service allows for personal and non-commercial purpose use of their Service. They do strictly prohibit scraping their data in a later provision. "You also agree not to: access, monitor, or copy any content of our Service using any robot, spider, scraper, or other automated means or any manual process. Since we fall into the exception of non-commercial purpose use (educational) we are allowed to use the scraping information from Hotels.com as long as the project never becomes commercial.

### Ticketmaster.com and Ticketmaster API

Ticketmaster allows you to view the information on the website for non-commercial purposes. This allowance is not useful for traditional data scraping. Security measures will either block or pause access to the website when you try to scrape the data from the website. And you are prohibited from using any program to go around the security measures.

- Use any computer program, bot, robot, spider, offline reader, site search/retrieval application, or other manual or automatic device, tool, or process to retrieve, index, data mine, or in any way reproduce or circumvent the security structure, navigational structure, or presentation of the Content or the Site, including with respect to any CAPTCHA displayed on the Site. Operators of public search engines may use spiders to copy materials from the Site for the sole purpose of and solely to the extent necessary for creating publicly available searchable indices of the materials, but not caches or archives of such materials. We may revoke this exception at any time and require removal of archived materials gathered in the past.

Therefore the only way to get the data from Ticketmaster is to use their API. They have a Developer API (Discovery API) that is free for almost anyone to use. Discovery API has limited access to ticket prices and does not have any inventory information. There is a Partner level access tier for the API that would give a person full access to the ticket prices and inventory but that is not available to us for this project. Since the Discovery API did not provide all the information we needed for the project, we used the Google Events API as well. A downside to Google Events API is that it is limited to 100 searches before it starts charging money. Both APIs would not have ethical considerations because the company are allowing you access to the data as long as you register an account.