



Professional Staffing and Recruiting

Node.js Coding Challenge

Thanks for taking the challenge. We hope you find this a fun and thought-provoking exercise. You have been asked to create an API for the Chicago Divvy Bike Rental platform using the Divvy API and the provided trip data.

Explanation of the Models

Station - Where the bikes can originate and end

Trip - the dates, times, station, and rider info

Rider - the person renting the bike

Requirements

Create a restful API that returns the following data:

1. Return the information for one station given a station id
2. Given one or more stations, return the number of riders in the following age groups, [0-20,21-30,31-40,41-50,51+, unknown], who ended their trip at that station for a given day.
3. Given one or more stations, return the last 20 trips that ended at each station for a single day
4. Require every API request to include an API token and handle the case where this is missing.
5. Add a test for at least one of the api calls.
6. Use whatever node packages you like but don't install a 3rd party databases, caching, or other server apps.
7. Optimize the app as best as possible for performance and assume your app will run in a multiprocessor or multicore environment.
8. Setup your app so it can be run locally.

Really Nice To Have: Containerize your app so it can be deployed using Docker.

Data Sources: Station Information. *This url should be called at least once by your app*

https://gbfs.divvybikes.com/gbfs/en/station_information.json

Trip Data: *The unzipped version of this data should be loaded from the filesystem into your app*

https://s3.amazonaws.com/divvy-data/tripdata/Divvy_Trips_2019_Q2.zip

Resources

Divvy Data Home Page <https://www.divvybikes.com/system-data>

Submission

- Provide the source code to your project through a file or code repository.
- You can share the container through a container management system or export the docker image and share the file with us. If you know of a better way to share it, feel free to do that.
- Please include a README in the project that has information about how to access the API endpoints.