

Asteroid - Neo Stats

Summary

Neo stands for Near Earth Objects. Nasa provides an open API and in this problem we will be using the Asteroid NeoWs API.

We want to plot a line chart showing **number of asteroids** passing near earth **each day** for the given date range as well as find the nearest asteroid and the fastest asteroid.

Data Source

NASA's Open API -> <https://api.nasa.gov>

Neo Feed

Retrieve a list of Asteroids based on their closest approach date to Earth

<https://api.nasa.gov/api.html#neows-feed>

Web Application

This should be a single page web application. Feel free to use any reactive JS libraries like VueJS, AngularJS or anything you like. Use Twitter Bootstrap for the UI.

User Story

As a user, I want to select start and end date so that I can view the Neo Stats for that date range.

Provide a way (input) for the user to specify the start and end dates. Use a date picker for the same.

Once the dates are selected, user will hit "Submit". On Submit, fetch the Neo Feed from NASA's open API for the given date range and plot a graph showing total number of asteroids for each day of the given date range. Use a bar or line chart for the same.

Also show the following stats (deduced from the data you will receive from Neo Feed)

1. Fastest Asteroid in km/h
2. Closest Asteroid
3. Average Size of the Asteroids in kilometers

Use <https://www.chartjs.org/> to plot the chart.

Version Control

Put your source code in a Git repository (Bitbucket or Github) and share the URL to the same.

Deployment

Deploy the app on Heroku or AWS or Azure and share the URL for testing.

Notes

- You can refer respective manuals/docs
- You are free to get ideas from online but DO NOT copy/paste the code
- Feel free to get in touch should you need any clarifications