Explore the NASA Open Data Catalogs

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Welcome!

Open NASA

The starting point for discovering NASA data, code, and APIs

URL: https://open.nasa.gov/open-data/

Sites of Note:

- data.nasa.gov - NASA Open Data Portal
- code.nasa.gov - NASA Code Available in open source!
- api.nasa.gov - NASA APIs

NASA Open Data Portal

- A continually growing catalog of publicly available NASA datasets, APIs, visualizations, and more!
- URL: https://data.nasa.gov/

NASA Open Data Portal

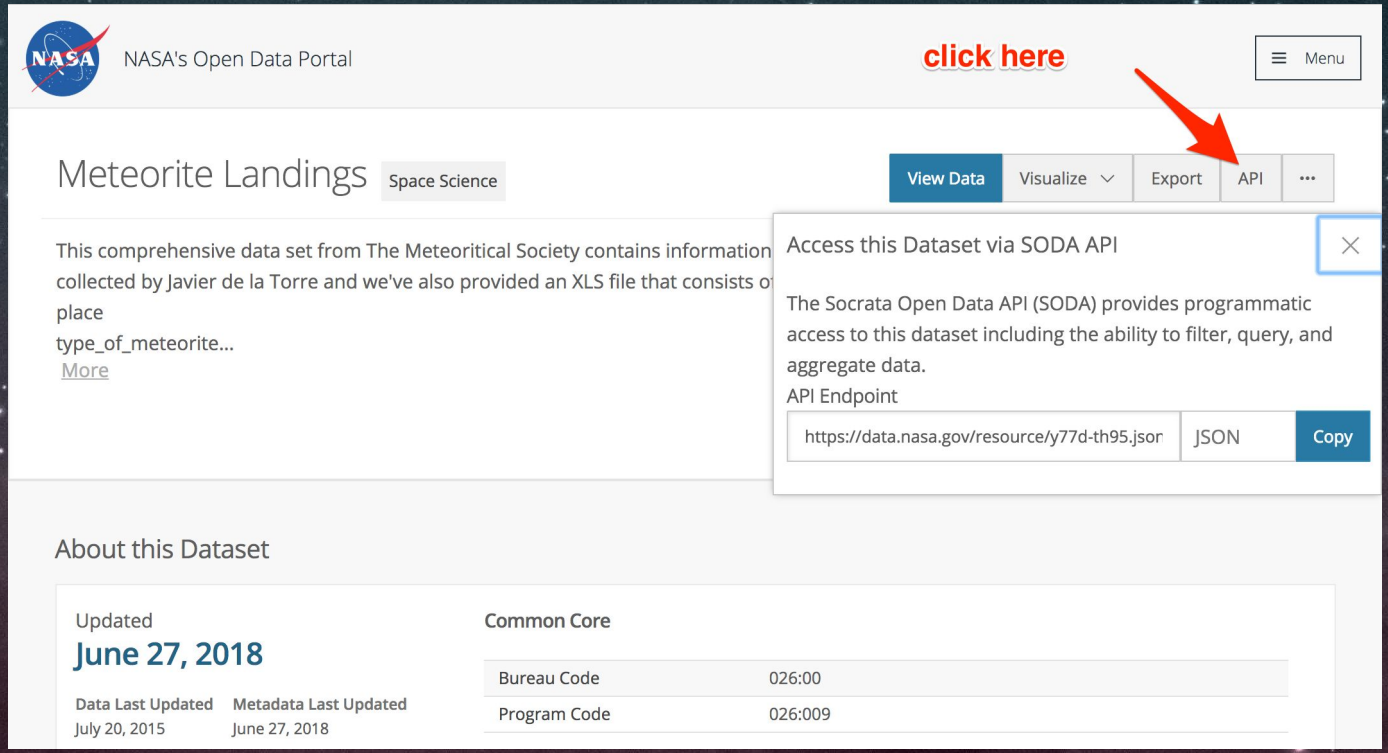
- A catalog of NASA datasets
- 44546 datasets available
- Most are available via API


USE THE API
LUKE.
DIYLOL.COM

NASA Open Data Portal

- Most APIs are provided in The Socrata Open Data API (SODA) format.
- Getting Started Page: https://data.nasa.gov/stories/s/gk8h-th3y
- Getting Started with Socrata: https://dev.socrata.com/

NASA Open Data Portal



NASA Open Data Portal DEMO

https://data.nasa.gov

NASA Code

- Browsable Catalog of NASA Open Source Software
- OMG OMG OMG!

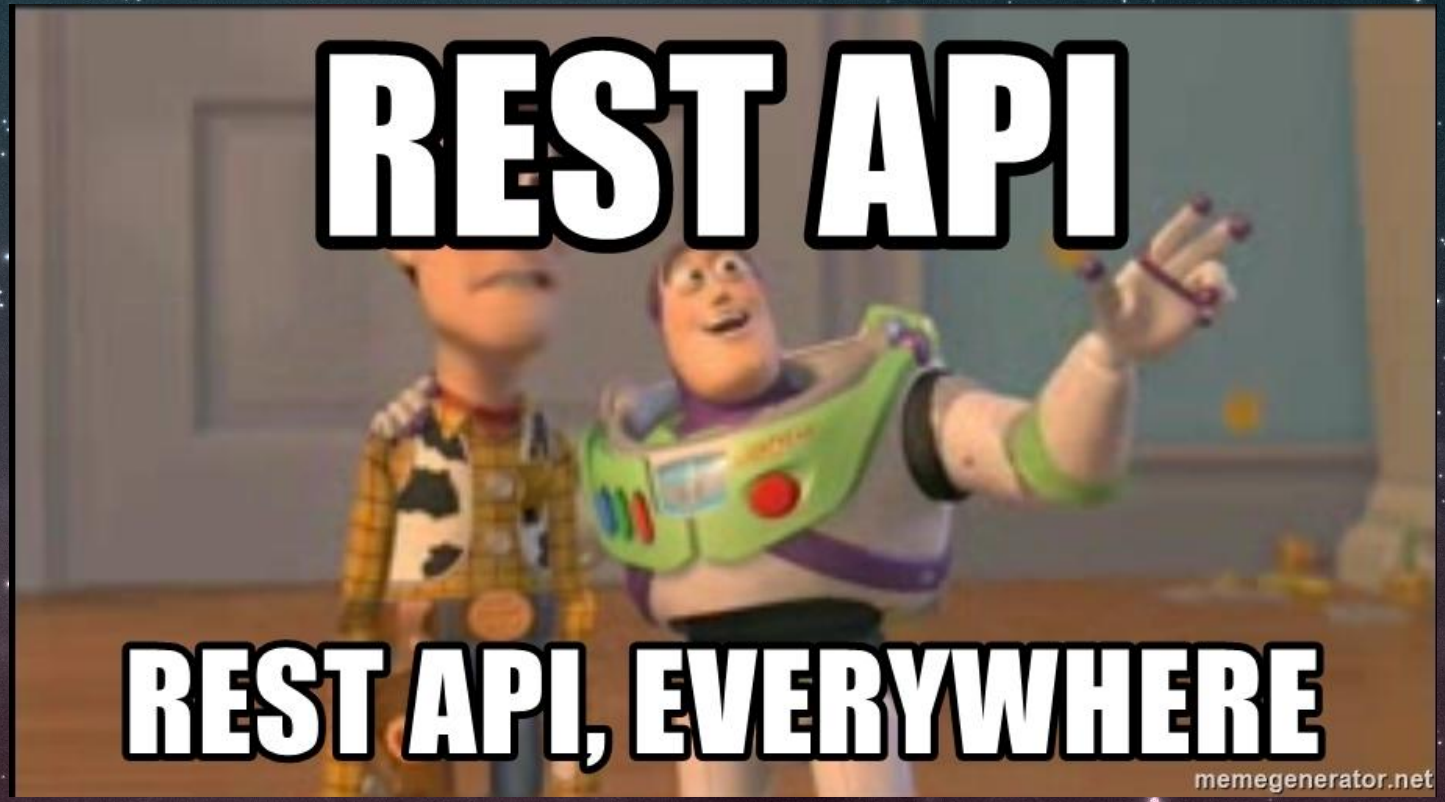
NASA Code

- Code for finding planets! https://code.nasa.gov/?tag=Kepler
- Original Apollo 11 guidance computer (AGC) source code for Command Module (Comanche055) and Lunar Module (Luminary099) https://github.com/chrislgarry/Apollo-11
- Code written in Python https://code.nasa.gov/?q=python

NASA CODE DEMO

https://code.nasa.gov

NASA APIs



NASA APIs

- A small collection of useful RESTful APIs
- APIs seem to be more “Real Time” in nature
- Need to register for an API Key
  https://api.nasa.gov/index.html#apply-for-an-api-key

NASA APIs DEMO

https://api.nasa.gov

Interesting APIs

Satellite Situation Center (SSC) RESTful Web Services.
https://sscweb.gsfc.nasa.gov/WebServices/REST/

The Asteroids NeoWS may have data relevant to the Hello Bennu! Challenge.
https://api.nasa.gov/api.html#NeoWS

The Mars Atmospheric Aggregation System (MAAS) has an open source REST API and it could be relevant to the Virtual Space Exploration challenge.
http://ingenology.github.io/mars_weather_api/

APIs Available In Many Formats!

The Meteorite Landings are in GeoJSON format which is suitable to digital globes.
https://data.nasa.gov/browse?q=GeoJSON&sortBy=relevance

There are 20 data sets that have Keyhole Markup Language (KML) files, which is suitable for digital globes.
https://data.nasa.gov/browse?q=KML&sortBy=relevance

There are seven data sets that have JSON files, several of these data sets have a fully queryable REST API.
https://data.nasa.gov/browse?q=JSON&sortBy=relevance

There are 10 data sets that have a REST API.
https://data.nasa.gov/browse?q=REST%20API&sortBy=relevance


Thanks!