1. **Get an API token.** In your new ADS account, click **Account > Customize Settings**, then click on **API Token** in the left sidebar. Click the **Generate a new key** button - your API token is the long series of letters and numbers in the box.

   ![Image of API Token](image)

   **Note:** you may make up to 5000 regular queries (or 100 “big queries”) a day

2. **Choose an access method.** There are several ways to make queries using the API; choose the method that works best for you:
   - Command line using **curl**
     - Best for: quick queries, learning to create API searches
   - Python scripts using the **requests** library
     - Best for: creating scripts, easy translation between command line *curl* requests and Python
   - Python scripts using the unofficial **ADS** library
     - Best for: creating advanced scripts, efficient memory usage

3. **Start searching.** Searches using the API rely on building and sending URLs, similar to what you’d see in your web browser. Syntax varies based on the access method, but searches with starred (*) access methods need the following:
   - **Type of call/HTTP method:** GET (default), POST, or PUT; check the ADS API documentation (https://ui.adsabs.harvard.edu/help/api/) to get the correct method for your type of request
   - **Your API token**, sent as a header (see examples)
   - **Base URL:** `https://api.adsabs.harvard.edu/v1`
   - **Endpoint:** the part after the base URL, separated with front-slashes. This varies based on your request, e.g. `/search` for simple searches
   - **Query string:** for `/search` requests, the URL-encoded query parameters, e.g. `/query?q={search parameters}`
   - Example search URL (uses GET method):
     `https://api.adsabs.harvard.edu/v1/search/query?q=neutron+star`
ADS API search examples

- **Command line, using curl**
  ```
curl -H "Authorization: Bearer token"
  "https://api.adsabs.harvard.edu/v1/search/query?q=author%3Amart%C3%ADnez+neutron+star"

curl -H "Authorization: Bearer token"
  "https://api.adsabs.harvard.edu/v1/search/query?q=bibstem%3AApJ%20year%3A2015&sort=citation_count%20desc"
```

- **Python, using the requests library**
  ```python
import requests
r=requests.get('https://api.adsabs.harvard.edu/v1/search/query?q=author%3Amart%C3%ADnez+neutron+star',
  headers={'Authorization': 'Bearer token'})

r=requests.get('https://api.adsabs.harvard.edu/v1/search/query?q=bibstem%3AApJ%20year%3A2015&sort=citation_count%20desc',
  headers={'Authorization': 'Bearer token'})
```

- **Andy Casey’s unofficial ADS Python module**
  ```python
import ads
ads.config.token = 'token'

r = ads.SearchQuery(q='author:martinez neutron star')

  sort="citation_count")
```