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IN-MEXICO PROGRAM BACKEND DEVELOPER CERTIFICATION

Server and Database Commands

Made By:

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GIT Repository link:

<https://github.com/FloresEmilioIg/Challenge3>

Google Scholar API

Endpoints:

- **Google Scholar Search Endpoint:** This endpoint is used to perform general searches for academic content. Example of code:

```
GET /search?engine=google_scholar&q={search_query}
```

- **Google Scholar Author Search Endpoint:** This endpoint allows users to retrieve information about authors. It uses an author name or ID as a parameter. Example of code:

```
GET /search?engine=google_scholar_author&q={author_name}
```

- **Google Scholar Cited By Search Endpoint:** This endpoint enables users to find articles that cite a specific article. Example of code:

```
GET /search?engine=google_scholar&cites={article_id}
```

- **Google Scholar Article Versions/Cluster Search Endpoint:** This endpoint is used to find different versions or related articles within a cluster based on a unique article ID (Cluster). Example of code:

```
GET /search?engine=google_scholar&cluster={article_id}
```

Authentication methods:

Normally, Google Scholar does not offer a public, direct API for general use. So, the next best thing that can be used are third-party scraping services. We'll use SerpApi as our option on this case.

As to how we will use it to gain access to access keys or tokens it will be done in a few steps:

1. Register and Obtain an API Key:

- Sign up for an account on SerpApi.
- Navigate to the API Key Management or Developer section within your account dashboard.

- Generate a unique API key or token, often by clicking a "Create" or "Generate" button.
- Copy the generated API key.

2. **Integrate the API Key into Your Code:**

- Consult the documentation provided by the third-party service for details on how to use their API.
- Typically, you will include the API key as a parameter in your API requests, often in the Auth field or as a key parameter in the request URL.
- Configure other necessary parameters for your query, such as the search query (q), engine type (e.g., google_scholar), and any filters (e.g., year range, language).
- Execute your code to send the API request and receive the structured data (usually in JSON format).

Query parameters:

Here are some parameters that can be used to customize the search in the API:

- **q:** The main search query (example, "Physics"). This is typically a required parameter.
- **cites:** A unique ID for an article to find articles that cite it.
- **as_ylo:** Filters results to include only those published from a specified starting year.
- **as_yhi:** Filters results to include only those published up to a specified ending year.
- **scisbd:** Filters results based on whether to include only abstract results (set to 1) or all results (set to 0).
- **as_vis:** Controls whether to include or exclude citations (e.g., 1 to exclude, 0 to include).
- **safe:** Filters adult content from results (e.g., "active" to enable SafeSearch, "off" to disable).
- **cluster:** A unique ID for an article to find all available versions of it.
- **author_id:** Used with the Google Scholar Author API to retrieve information about a specific author.

The return format is structured the following way:

Articles

Any time
Since 2019
Since 2018
Since 2015
Custom range...

Sort by relevance
Sort by date

☒ include patents
☒ include citations

Create alert

biology

search_information > query_displayed

About 5,790,000 results (0.04 sec)
search_information > total_results

Population biology of plants.

JL Harper - Population **biology** of plants., 1977 - cabdirect.org

The first chapter is concerned with experiments, analogies and models. There are sections on dispersal, dormancy and recruitment of seedling populations, effects of neighbours, effects of predators and natural dynamics of plant populations, and plants, vegetation and evolution. There ...

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[citation] Molecular cell **biology**

H Lodish, A Berk, CA Kaiser, M Krieger, MP Scott... - 2008 - Macmillan

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[book] Brock **biology** of microorganisms

MT Madigan, JM Martinko, J Parker - 1997 - researchgate.net

Purple bacteria are anoxygenic phototrophs that grow phototrophically, obtaining carbon from CO₂+ H₂S (purple sulfur bacteria) or organic compounds (purple nonsulfur bacteria). Purple nonsulfur bacteria are physiologically diverse and most can grow as ...

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[organic_results](#)

[citation] Circular statistics in **biology**.

E Batschelet - ACADEMIC PRESS, 111 FIFTH AVE., NEW YORK, NY ..., 1981

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[related_searches](#)

Related searches

molecular biology synthetic biology evolutionary biology computational biology	reproductive biology biochemistry and molecular biology global change biology plos biology
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[book] **Biology** of amphibians

WE Duellman, L Trueb - 1984 - books.google.com

This is the widely acclaimed, preeminent reference and text on all aspects of amphibian **biology**, including their life history, ecology, morphology, and evolution. Copiously illustrated with original drawings and photographs and meticulously referenced with more than 2,500 ...

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Elements of physical **biology**

AJ Lotka - Science Progress in the Twentieth Century (1919-1933 1926 - JSTOR

F rom Dr. Alfred J. Lotka Dear Sir,-The review of Elements of Physical **Biology** which appeared in a recent issue of Science Progress is base on a fundamental misunderstanding of the method and purpos of that work. As this misunderstanding is calculated to mislead the ...

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[Electron transfers in chemistry and biology](#)

Electron transfers in chemistry and **biology**

RA Marcus, N Sutin - Biochimica et Biophysica Acta (BBA)-Reviews on ..., 1985 - Elsevier

Electron-transfer reactions between ions and molecules in solution have been the subject of considerable experimental study during the past three decades. Experimental results have also been obtained on related phenomena, such as reactions between ions or molecules ...

Cited by 8929 Related articles All 6 versions

[\[PDF\] vanlanguni.edu.vn](#)

[citation] The world's worst weeds: distribution and **biology**

L.G Holm, DL Plucknett, JV Pancho... - 1977 - University press of Hawaii Honolulu

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[Free radicals in biology and medicine](#)

[book] Free radicals in **biology** and medicine

B Halliwell, JMC Gutteridge - 2015 - books.google.com

Free Radicals in **Biology** and Medicine has become a classic text in the field of free radical and antioxidant research. Now in its fifth edition, the book has been comprehensively rewritten and updated whilst maintaining the clarity of its predecessors. Two new chapters ...

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[Biology of ticks](#)

[book] **Biology** of ticks

DE Sonenshine, RM Roe - 2013 - books.google.com

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[organic_results](#)

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Usage limits:

The limits of SerpApi are 250 searches for the free plan that is currently being used.

Code examples:

Here is a demonstration of how to use Google Scholar API in a few programming languages:

```
</> Code to integrate | Java
1  Map<String, String> parameter = new HashMap<>();
2
3  parameter.put("engine", "google_scholar");
4  parameter.put("q", "biology");
5  parameter.put("api_key", "22d39513fa0109a11b2d9d0a09c553203ac80715fee6");
6
7  GoogleSearch search = new GoogleSearch(parameter);
8
9  try {
10     JsonObject results = search.getJson();
11     var organic_results = results.get("organic_results");
12 } catch (SerpApiSearchException ex) {
13     System.out.println("Exception:");
14     System.out.println(ex.toString());
15 }
```

```
</> Code to integrate | JavaScript
1  const { getJson } = require("serpapi");
2
3  getJson({
4     engine: "google_scholar",
5     q: "biology",
6     api_key: "22d39513fa0109a11b2d9d0a09c553203ac80715fee63e3f4b6c9a82fe";
7 }, (json) => {
8     console.log(json["organic_results"]);
9 });
```

</> Code to integrate

Python

```
1 from serpapi import GoogleSearch
2
3 params = {
4     "engine": "google_scholar",
5     "q": "biology",
6     "api_key": "22d39513fa0109a11b2d9d0a09c553203ac80715fee63e3f4b6c9a82"
7 }
8
9 search = GoogleSearch(params)
10 results = search.get_dict()
11 organic_results = results["organic_results"]
```

</> Code to integrate

PHP

```
1 require 'path/to/google-search-results.php';
2 require 'path/to/restclient.php';
3
4 $query = [
5     "engine" => "google_scholar",
6     "q" => "biology",
7 ];
8
9 $search = new GoogleSearch('22d39513fa0109a11b2d9d0a09c553203ac80715fe
10 $result = $search->get_json($query);
11 $organic_results = $result->organic_results;
```