Function: get_google_results

Description:
This function sends a GET request to Google's search engine for the given query and returns a list of URLs obtained from the search results.

Input:
query: a string representing the search query to be sent to Google's search engine.

Output:
results: a list of strings representing the URLs obtained from the search results.

Function: get_ranking

Description:
This function retrieves the search results for a given keyword and checks if the given URL is present in the search results. If the URL is present, the function returns the position of the URL in the search results. Otherwise, the function returns -1.

Input:
keyword: a string representing the search query to be sent to Google's search engine.
url: a string representing the URL to be searched for in the search results.

Output:
ranking: an integer representing the position of the given URL in the search results. If the URL is not present in the search results, the function returns -1.

Example usage:

This code demonstrates the usage of the above functions by finding the ranking of a given URL for a specific search query. The keyword and URL are provided as input arguments to the function get_ranking. If the URL is found in the search results, the function returns its position in the search results. If the URL is not found in the search results, the function returns -1.

Documentation:

- Imports the necessary modules - requests, BeautifulSoup, psycopg2, and datetime.
- Establishes a connection to the PostgreSQL database using psycopg2, with host, dbname, user, password, and port parameters specified.
- Creates a table named "website_rankings" with columns for id, keyword, url, ranking, and date_time, if it does not exist already.
- Defines a function named "get_google_results" that accepts a query as an argument, sends a GET request to Google Search, and returns a list of search results' URLs.
- Defines a function named "get_ranking" that accepts a keyword and a URL as arguments, calls the "get_google_results" function to retrieve a list of URLs for the keyword, and returns the ranking of the URL in the list or -1 if the URL is not found.

- Assigns a keyword, URL, and ranking value using the "get_ranking" function.
- Inserts the keyword, URL, and ranking value into the "website_rankings" table using a SQL INSERT statement.
- Retrieves all rows from the "website_rankings" table and prints them.
- Closes the database connection.

PostgreSQL Database Connection

This code is connected to PostgreSQL to save the rank of a website with its timestamp, keyword, URL.

In the code you have write your database user,dbname,hostname,password,host in order to connect it with your postgresql database.

Thats it,now you have your own SEO tool with ability to save your website rank to see the trend of its ranking.