Python code challenge – API

General guidelines:

- You can use the internet (for references)
- You can download any package/framework you want
- Read all the questions carefully, if you have any question – ASK, this is not a test in reading comprehension
- Try to write your code well designed (but not over-design), testable and simple
- Good luck!

Task:

- You are going to implement a search engine for Wikipedia
- Input:
  1. search phrase - string. The phrase to search for
  2. k - positive int. Relevant iff you end up in a disambiguation page when searching the phrase
- Output: top K results. Each result must consist of the title and the summary. K is an input parameter which is relevant in case you end up in a disambiguation page. Otherwise k==1. A disambiguation page is one which one of its categories has the term disambiguation.

Guidelines and principles:

- Programing language: Python
- Proper design and project arrangement
- Clean code
- You may use any additional libraries you want.
- Please consider you are using external API which has its limits
- Testing - unit, integration, planning
- Bonus:
  - dockerfile
  - Using openAPI
  - Using FastAPI

Request example:

Search string: Python_(programming_language)

k: 3

Response example:

[

{

"Title": "Python_(programming_language)"

"Summary": "Python is a high-level, interpreted, general-purpose programming language. Its design philosophy emphasizes code readability with the use of significant indentation.Python is dynamically-typed and garbage-collected. It supports multiple programming paradigms, including structured (particularly procedural), object-oriented and functional programming. It is often described as a "batteries included" language due to its comprehensive standard library.Guido van Rossum began working on Python in the late 1980s as a successor to the ABC programming language and first released it in 1991 as Python 0.9.0. Python 2.0 was released in 2000 and introduced new features such as list comprehensions, cycle-detecting garbage collection, reference counting, and Unicode support. Python 3.0, released in 2008, was a major revision that is not completely backward-compatible with earlier versions. Python 2 was discontinued with version 2.7.18 in 2020.Python consistently ranks as one of the most popular programming languages."

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Search string: Python

k: 3

Response example:

[

{

"Title": "CMU Common Lisp"

"Summary": "CMUCL is a free Common Lisp implementation, originally developed at Carnegie Mellon University.

CMUCL runs on most Unix-like platforms, including Linux and BSD; there is an experimental Windows port as well. Steel Bank Common Lisp is derived from CMUCL. The Scieneer Common Lisp is a commercial derivative from CMUCL."

},

{

"Title": "Colt Python"

"Summary": "The Colt Python is a .357 Magnum caliber revolver manufactured by Colt's Manufacturing Company of Hartford, Connecticut. It was first introduced in 1955, the same year as Smith & Wesson's M29 .44 Magnum. The Colt Python is intended for the premium revolver market segment. Some firearm collectors and writers such as Jeff Cooper, Ian V. Hogg, Chuck Hawks, Leroy Thompson, Scott Wolber, Renee Smeets and Martin Dougherty have described the Python as "the finest production revolver ever made".In 2020, Colt reintroduced the Python in a 4.25″ and a 6″ barrel configuration, followed by a 3" barrel version in 2022. The reintroduced Python has been technically revised and reinforced compared to the original revolver."

},

{

"Title": "Cython"

"Summary": "Cython () is a programming language that aims to be a superset of the Python programming language, designed to give C-like performance with code that is written mostly in Python with optional additional C-inspired syntax.Cython is a compiled language that is typically used to generate CPython extension modules. Annotated Python-like code is compiled to C or C++ then automatically wrapped in interface code, producing extension modules that can be loaded and used by regular Python code using the import statement, but with significantly less computational overhead at run time. Cython also facilitates wrapping independent C or C++ code into python-importable modules.

Cython is written in Python and C and works on Windows, macOS, and Linux, producing source files compatible with CPython 2.6, 2.7, and 3.3 and later versions.

Cython 3.0.0 is in development."

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