queries:
question titles:

1. two sum(extract name, descriptions)
2. sum(keywords in titles, descriptions)
3. 23(id)
4. array
5. matrix
6. integer
7. list
8. merge
9. tree
10. sequence
11. pow
12. 222(现显示出现的id对应的题目，再显示已做过的题目
13.

1. Information about the search engine

1. Category (of searched material). Define clearly the category of search you will be reporting on.

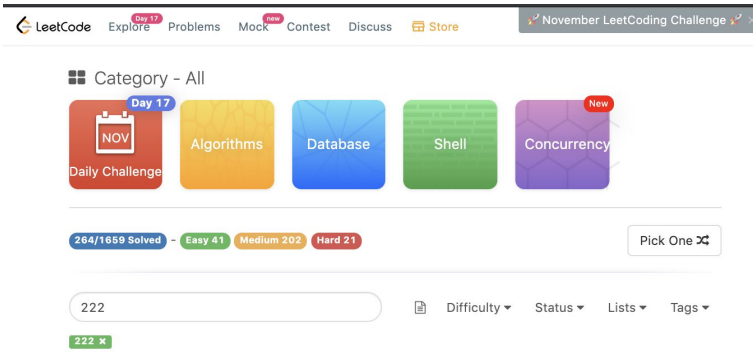
Leetcode website provides programmers with various coding questions. It has over 1,100 different problems, support for over 18 programming languages. Plus, it offers active community that is always there to help you with the solutions you come up with. Programmers can also search for questions and reviews in various topics and types, such as interview questions, interview experience, career and so on. As a powerful search engine Leetcode keeps growing and enlarging itself to meet more demands for all areas of coding and programmers' career life.

navigational query

cite: https://www.quora.com/What-is-Leetcode

2. Tell us why this category/search engine is of interest to you.

Leetcode is the most helpful website I used to solidify and improve my algorithm and coding techniques. The search engine is very user-friendly, it provides various searching strategies to locate and screen out questions users want most. Actually, there are many sub-search engines providing contents and topic searching in sections such as explore, problems, Mock, Contest, and Discuss to fulfill all needs of practicing and interviewing in programmers' school and career life.



feature: search engine supporting different sections

3. What kinds of searches can be supported by this engine? Give examples.

coding problems, interview questions, interview experience, compensation, career, general discussion, support and feedback

(1) navigational search:

When the query is to search out a specific coding question with known id or title name:

query1 is 13; query2 is “two sums”

(2) Informational search:

When the query is to search out questions that have titles containing specified words:

query3 is “array”; query4 is “string”.

4. What kinds of rankings can be supported by this engine (e.g. by relevance, by date etc.)? Give example links.

(1) By difficulty. In Leetcode, there are three difficulty levels:
easy, medium and hard.
link: https://leetcode.com/problemset/all/?difficulty=Easy

(2) By status. In Leetcode, there are three status:
todo, solved, and attempted.
link: https://leetcode.com/problemset/all/?status=Todo

(3) By tags. In Leetcode, we can rank all questions by tags questions belongs to:
https://leetcode.com/problemset/all/?status=Todo&topicSlugs=array

5. Where do you think the search company got data for this engine? Is data available on the web already that can be crawled? Otherwise what sort of data is required? How would one go about getting such data? For example, do you get it from companies who have the data (e.g. film or video production companies for IMDB) or from individuals? Or both?

The search company got data for this engine from real interview questions from tech companies. The data is not available on the web already that can be crawled.

cite: https://www.quora.com/Where-does-Leetcode-get-its-questions

Otherwise what sort of data is required? How would one go about getting such data?

One can go about getting such data by IT companies such as Google, Facebook, Amazon. Sometimes one can also get them from online users(individuals) that have interview experience before.

6. What are the important “features” of the data, especially those that make this category different from other search categories? What’s special and specific to this type? For example, dates or the source of news could be important for a news search category.

Important features of the data:

the description of the question, the examples of the question, related topics, similar topics, similar questions, test cases.

This type is special and specific in the components of each question such as related topics it belongs to, examples of input and output and so on.

7. What are the major ranking features that it seems to use? Again, what is special for this category?

In news search, for example, the name of the source of news (is it New York Times or West Seattle News) is important. People may respect and believe New York Times more, so you may want to have categories of news sources as a feature, maybe with values highly reliable, reliable, not very well-known or reliable etc. This c ould be a ranking feature.

8. This is important: Given a query, how does the system seem to rank results for the query? If you can find details on the engine, and summarize those, that will be good. Otherwise, look for relevant information and, based on what you have studied in this course, write down your educated guess about how the search is carried out. Write down any document sources that you are using, or if you are guessing how the system works, specify it in the document.

I am guessing how the system works.

index construction, index compression, scoring, term weighting and vector space model.

9. List some technical problems the search engine creators must have had to solve, and your ideas about how to solve them.

10. What are the search engine's strengths? What does it do well?

11. What are its limitations? What does it do badly? How can these be overcome?

12. What features do you think should be added to the engine, to make it better and more useful for this category of search?