

Data Structures (Fall 2023)

Final Project Report

Book Inquiry

書籍查詢



Group 12

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Introduction

1. Topic

Book Inquiry (書籍查詢)

2. Motivation

The internet is replete with a vast array of information, encompassing various types that often share identical names or titles. A notable observation is that literary works, particularly books, do not frequently appear as primary results in search queries. Predominantly, search results tend to favor cinematic or visual media, such as movies or images. For instance, an attempt to locate the 'Harry Potter' novels predominantly yields results related to the film series rather than the original literary works. This prevalent issue served as the impetus for our research topic.

3. Expected Goals and Achievement

The objective of our project is to streamline the search process for individuals seeking book-related information. By employing a methodical filtering system, our aim is to expedite and refine the accuracy of search results, ensuring that users can swiftly and precisely locate the books they are searching for. This approach is designed to mitigate the common challenge of sifting through irrelevant content, thereby enhancing the efficiency of literary research via the internet.

4. Primary Keywords and Weight

Book Data:

ISBN

Title / Book / Author / Writer / Translator

Publisher / Publishing House / Publication Date

Online Platform:

Readmoo讀墨電子書 / Rakuten Kobo

博客來 / 誠品線上 / 金石堂網路書店 / 讀冊生活網路書店 / 墊腳石 / Hami
書城

全國新書資訊網

Negative Weights Keywords:

booking / 預約 / 訂位 / inline / 地址 / 餐廳 / 菜單

購物 / article / 新聞 / 娛樂 / 藝人

5. Challenges & Difficulties

- A. A primary challenge during our development was managing Tomcat operations, an area in which our team lacked prior experience. This led to numerous issues in environment setup. Furthermore, the use of different Tomcat versions for Homework 11 necessitated a reintegration of our development environments. Additionally, this project marked our inaugural use of Git for version control, a departure from our previous project management practices.
- B. Considerable time was invested in deliberating how to coalesce diverse programming concepts and techniques gleaned from individual assignments into a unified framework.
- C. In our keyword design phase, we initially employed both Chinese and English to optimize search accuracy. However, the dual-language approach presented challenges due to the polysemous nature of English terms in Chinese translation. Consequently, we pivoted to predominantly using Chinese keywords to streamline the filtering and sorting processes.
- D. An oversight in not clearing previous search results led to confusion in subsequent web search outcomes.

Web Page and Program Demonstration

1. The GitHub Link

<https://github.com/ashleylee-lxzhen/DataStructure/tree/master>

2. Frontend Page Overview



- A. At the top is the keyword input field, where users can input keywords to search.
- B. On the left, the interface showcases current trending keywords, informing users about the latest popular searches.
- C. On the right, the site displays the bestselling books ranking from online bookstores.

3. Backend Program Execution Result

Keyword Entered for Demonstration: 泰國

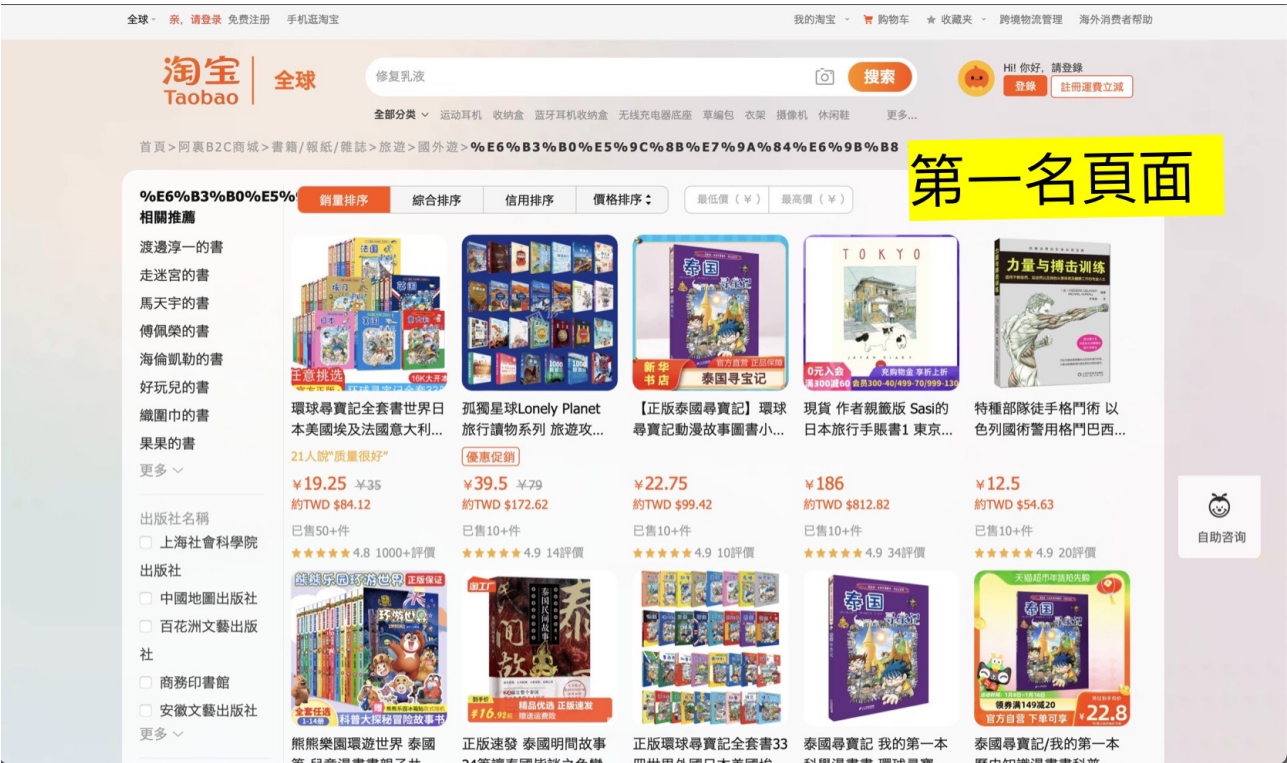
```
(0.0|https://yayainthai.com/tag/
%25E6%25B5%25B7%25E5%25A4%2596%25E6%2583%25B3%25E8%25B2%25B7%25E4%25B8%25AD%25E6%2596%2587%25E6%259B%25B8%25E7%25B1%258D/)
(-700.0|https://www.twreporter.org/a/thailand-student-protest-2) 搜尋結果的分數和網址
(-1590.0|https://www.twreporter.org/donation/period)
(-1590.0|https://www.twreporter.org/donation/period) 兩個子網站的分數
(-3330.0|https://www.kingstone.com.tw/book/qfb/)
(0.0|https://www.104.com.tw/jobbank/cust_job/introduce.cfm?
j=383a42283c6c3e2430683b1d1d1d5f2443a363189j56&jobsourc=checkc)
(-170.0|https://www.yuantabank.com.tw/bank/invest/coupon/List_a.do)
(-4260.0|https://biggo.com.tw/s/
%25E9%2581%258A%25E6%25B3%25B0%25E5%259C%258B%25E6%2597%2585%25E9%2581%258A%25E6%259B%25B8%25E7%25B1%258D/)
(-3910.0|https://biggo.com.tw)
(-30.0|https://account.biggo.com?url=https://biggo.com.tw/s/
%25E9%2581%258A%25E6%25B3%25B0%25E5%259C%258B%25E6%2597%2585%25E9%2581%258A%25E6%259B%25B8%25E7%25B1%258D/&lang=zh_TW)
(-42440.0|https://mall.iopenmall.tw/022006/index.php?action%3Dproduct_detail%26prod_no%3DP2200603684420)
(-38240.0|https://mall.iopenmall.tw/iopen/)
(-500.0|https://mall.iopenmall.tw/member/index.php?
action=member_login&b_action=product_detail&prod_no=P2200603684420&r_byeurl=022006)
```

(Unsorted Search Results)

```
0 public class Scrapper {
    Tomcat v9.0 Server at localhost [Apache Tomcat] /Library/Java/JavaVirtualMachines/jdk-21.jdk/Contents/Home/bin/java (2024年1月10日 下午6:49:18) [pid: 13241]
Title is: 探索泰國：泰國文化面面觀 - 博客來 - URL is: https://www.books.com.tw/products/0010866376
Title is: 遊泰國旅遊書籍的價格推薦- 2023年10月 | 比價比個夠BigGo - URL is: https://biggo.com.tw/s/
%25E9%2581%258A%25E6%25B3%25B0%25E5%259C%258B%25E6%2597%2585%25E9%2581%258A%25E6%259B%25B8%25E7%25B1%258D/
Title is: 泰國、越南，有時還有台灣：出版人的書市觀察 - 獨立評論 - URL is: https://opinion.cw.com.tw/blog/profile/52/article/5864
Title is: 泰國 | 亞洲 | 旅遊 | 中文書 - 金石堂 - URL is: https://www.kingstone.com.tw/book/qfb/
Title is: 海外想買中文書籍 - 泰國工作vs台灣女孩 - URL is: https://yayainthai.com/tag/
%25E6%25B5%25B7%25E5%25A4%2596%25E6%2583%25B3%25E8%25B2%25B7%25E4%25B8%25AD%25E6%2596%2587%25E6%259B%25B8%25E7%25B1%258D/
Title is: 暢游泰國第2版泰國自由行政略指導書泰國自助游旅行書籍曼谷芭提 ... - URL is: https://www.amazon.de/
%25E7%2595%2585%25E6%25B8%25B8%25E6%25B3%25B0%25E5%259B%25B0-
%25E6%25B3%25B0%25E5%259B%25B0%25E8%2587%25AA%25E7%2594%25B1%25E8%25A1%258C%25E6%2594%25B8%25E7%2595%25A5%25E6%258C%2587%25E5%25
AF%25B0%25E4%25B9%25A6-
%25E6%25B3%25B0%25E5%259B%25B0%25E8%2587%25AA%25E5%258A%25A9%25E6%25B8%25B8%25E6%2597%2585%25E8%25A1%258C%25E4%25B9%25A6%25E7%25
B1%258D-
%25E6%259B%25B8%25E8%25B0%25B7%25E8%258A%25AD%25E6%258F%2590%25E9%259B%2585%25E6%25B8%2585%25E8%25BF%2588%25E6%2599%25AE%25E5%25
90%2589%25E5%25B2%259B%25E6%25B3%25B0%25E5%259B%25B0%25E6%2597%2585%25E6%25B8%25B8%25E4%25B9%25A6%25E7%25B1%258D-
%25E5%259B%25B0%25E5%25A4%2596%25E6%2597%2585%25E6%25B8%25B8%25E6%2594%25B8%25E7%2595%25A5%25E4%25B9%25A6%25E7%25B1%258D/dp/
712228462X
Title is: 目前您搜尋的關鍵字為：泰國 - 博客來網路書店 - URL is: https://search.books.com.tw/search/query/key/
%25E6%25B3%25B0%25E5%259C%258B/spell/1/fclick/hotkey
Title is: 【書籍豆列】LP推荐阅读之泰国文化书籍 - 豆瓣 - URL is: https://m.douban.com/doulist/1388818/
Title is: Top 50件泰国文化书籍- 2024年1月更新- Taobao - URL is: https://www.taobao.com/list/product/
%25E6%25B3%25B0%25E5%259B%25B0%25E6%2596%2587%25E5%258C%2596%25E4%25B9%25A6%25E7%25B1%258D.htm
Title is: 泰國：拉瑪九世皇六十年 - 華藝電子書 - URL is: https://www.airitibooks.com/Detail/Detail?
PublicationID%3DP0110906003%26DetailSourceType%3D0
Title is: 泰國旅遊書- 優惠推薦- 2024年1月 | 蝦皮購物台灣 - URL is: https://shopee.tw/search?
keyword%3D%25E6%25B3%25B0%25E5%259C%258B%25E6%2597%2585%25E9%2581%258A%25E6%259B%25B8
Title is: Top 5000件泰國的書- 2023年12月更新 - 淘寶 - URL is: https://world.taobao.com/product/
%25E6%25B3%25B0%25E5%259C%258B%25E7%259A%2584%25E6%259B%25B8.htm
Title is: 政治書籍、民主社團遍地開花，「街頭外的學運」啟蒙泰國新世代 - URL is: https://www.twreporter.org/a/thailand-student-protest-2
Title is: 泰國- 青少年、兒童讀物(書籍動漫) - 人氣推薦- 2024年1月 | 露天市集 - URL is: https://www.ruten.com.tw/find/?
cateid%3D00060013%26q%3D%25E6%25B3%25B0%25E5%259C%258B
Title is: 泰國旅遊書- 優惠推薦- 2023年10月 | 蝦皮購物台灣 - URL is: https://shopee.tw/search?
keyword%3D%25E6%25B3%25B0%25E5%259C%258B%25E6%2597%2585%25E9%2581%258A%25E6%259B%25B8%26page%3D1
Title is: 泰國 | 書籍 - 遠見天下文化事業群 - URL is: https://bookzone.cwgv.com.tw/list/books/%25E6%25B3%25B0%25E5%259C%258B
Title is: 開始遊泰國說泰語：一冊在手，暢行無阻，最貼近泰國的旅行會話 - URL is: https://mall.iopenmall.tw/022006/index.php?
action%3Dproduct_detail%26prod_no%3DP2200603684420
Title is: 请问有什么好的书籍介绍泰国或泰国文化？不要旅游攻略那种。 - 知乎 - URL is: https://www.zhihu.com/question/47052109
children: https://books.cw.com.tw/book/84
Exception in Scrapper
```

搜尋結果（尚未排序）

(Weight Scores and URLs of the Search Results)



(Top–Priority Web Page of the Search Results)



(Sorted Search Results)