Object Oriented Analysis and Design: Preliminary Project Plan

Project Description

Developing a user-friendly search engine from scratch. The search engine will focus on a specific domain of information to provide results confined to the knowledge space of that domain.

The engine will serve through four primary functional units:
1. Crawling/Spider - That will systematically browse the WWW to collect data for indexing.
2. Indexing - refers to collecting, parsing, and storing data for fast retrieval.
3. Searching - matching the user query to provide accurate results.
4. Fronted end - presenting the retrieved data in a convenient and accessible manner.

Functional Requirements:

1. Partial and Complete Keyword Search
2. Pagination
3. Sorting Results (Most popular/ alphabetical order)
4. Autofill
5. Search based on boolean operations - AND|OR|NOT
6. Symbol filtering- ignoring specific characters in the search input

Team Members

1. Rathang Rajpal (rxr210009)
2. Shatavari Shinde (svs210001)
3. Arush Sharma (axs200241)
4. Yash Gupta (yxg210002)
5. Prasad Shinde (pxs200111)
6. Pin-Hsuan Yao (pxy200000)
7. Chia Chun Chu (cxc200048)
8. Nayeon Kim(nxk210015)
9. Shreyans Patel (ssp210009)
10. Khushbu Sharma (krs200001)
11. Vanita Bhagwat (vxb210009)
12. Manu Rajeev Karri (mxk200102)
13. Chi Lee (cxl200014)

Team organization
- Team Leader: Arush Sharma
- Sub Team 1 Leader: Khushbu Sharma
    - Team 1 members: Khushbu Sharma, Shatavari Shinde, Prasad Shinde, Pin-Hsuan Yao(Grace)
- Sub Team 2 Leader: Ratang Rajpal
    - Team 2 members: Arush Sharma, Rathang Rajpal, Yash Gupta, Nayeon Kim
- Sub Team 3 Leader: Manu Rajeev Karri

- Team 3 members: Manu Rajeev Karri, Shreyans Patel, Vanita Bhagwat, Chia Chun Chu(Jean), Chi Lee(Jin)

Deliverable
- Interim Project I - Initial conceptualization of ideas/designs that can lead to possible solutions along with a ppt file.
- Final Project I - Reporting intermediate deliverables of code-base, designs and diagrams.
- Interim Project II - Delivering most part of the code base with final designs and implementing improvement suggestions received at the end of Project I along with a ppt.
- Final Project II - Submission of final report with complete code base.

Due date
- February 2 (Wednesday) - Preliminary Project Plan
- March 7 (Monday) + March 9 (Wednesday)] - Interim Project I
- March 23 (Wednesday) - Final Project I submission
- April 18 (Monday) - Interim project II
- April 25 - April 27 (Monday/Wednesday) - Final Project II submission

Team website URL
- Team Website: https://personal.utdallas.edu/~arush.sharma/
- Github: https://github.com/developNY/S22-OOAD-web-search-engine

Tools

Scrapy - Web Crawling Framework

Django - Web Framework

Jquery/AJAX/React - Frontend library/framework

Postman - API testing and development

Postgre SQL - backend database

Might add more tools to the list as the project proceeds to later stages.