CMPUT291 Mini Project 2

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A general overview of the system with a small user guide

This program closely resembles the online library where users can search for articles using different sort methods provided by the program. The program is not only designed for users but also for authors and people that want to add new articles to the online library (database).

User Guide

Json_load:- when the user runs the main source code file (miniproject2.py) the program will access the json_load.py file which will ask the user to input the port number that they used to connect to the mongodb server. Then the user will be asked to enter the data file name that they want to import data from.

User options:- Users have four options to select from to perform different actions and plus one to exit the program. At the beginning and at the end of every action user will be shown these options to select from until the user chooses to exit the program.

Search for articles:- user can search for articles by passing one or more keywords and the program will return id, title, year and venue of the articles that match the user requested keywords in one of the following information fields of the article such as title, authors, abstract, venue, year fields. After that user can input the id of an article that they want to get more information. The program will return id, title, authors, references, venue, year, and abstract and also if there is any other article

that references the selected article, the program will return id, title and year of those articles that references the selected articles.

Search for authors:- users can search for authors by passing a keyword and the program will return a list of authors and number of articles they have contributed in. Then the user can input the full name of the author which will return the title, year and venue of all articles in which the article has contributed.

List the venues:- users give input for how many top venues they would like to get results. The program will return top venues in descending order along with the number of articles that were published at the same venue and name of the venue.

Add an article:- to add an article to the database, the program will ask the user to input a unique id for an article they would like to add before moving on, the program will check whether the id entered by the user does not already exist in the database. If it exists in the database program will ask the user to enter id again until the user enters a unique id. Then the program will ask users to enter the name of authors who contributed to the article then year and title of the article. The program will set other fields to default.

A detailed design of the software:- After running the program the user will be asked to input the port number to connect with the mongodb then the user will be asked to input the json file name from which they would like to insert data to the db database and dblp collection. After completion of phase 1, in phase 2 users will be given 5 options to choose from 1) search for articles, 2) search for authors, 3) list the venue, 4) add an article and 5) exit program. If users chooses option 1, user will be asked to enter keywords they want to search for after that program will print all the article that has those keywords in either title, venue, abstract, authors and year then users can select one of the article which will print all detail about that article and also information of articles that refers to the selected article. After that

user will be redirected to the main menu where again the user can select one of the following options. If user selects option 2, user will be asked to enter keyword to search for author name, program will print all author names that matches keyword, then user can select one of the listed authors to get all articles that author has contributed. After that user will be redirected to the main menu where again the user can select one of the following options. If user selects option 3, users will be asked to enter how many top venues they would like to get, the program will return top venues in descending order along with the number of articles that were published at the same venue and name of the venue. After that user will be redirected to the main menu where again the user can select one of the following options. If user selects option 4, user will be asked to enter unique id , title, year and author's name of an article and other fields will be set to default empty for the article they would like to add to the database. After that user will be redirected to the main menu where again the user can select one of the following options. If the user selects 0, the program will be closed.

Testing strategy:- We tested this program through the development process. After writing or making small modifications to the code we tested the working and correctness of the code which helped us from making big mistakes. Also after making significant changes or writing new code we get it checked by other group members so that we all know what is happening and what needs to be done. Errors were checked and changes were made accordingly.

Group work strategy

The project break-down between partners is well-explained:-

Aryan Patel:- json load file, action 2, 4, 3 and report

Priyanshu Rastogi :- json load file, action 1, 3

Jaspreet Singh Dhami:- testing, action 3 and report

The person responsible for each task is stated:- Aryan and Priyanshu worked on laod_json.py (phase 1) together. Priyanshu worked on action 1 and report, Aryan worked on action 2, 4, and report, and Jaspreet worked on testing of the program and report. We all worked on the action 3 of phase 2.

The time spent and the progress made for each partner is stated:-

We started working on mini project 2 on 17th Nov after meeting and taking different tasks on our assigned task and helped and communicated with each other through the development process. We talked about potential corner cases and modified your code accordingly. We finished our assigned task over the weekend. After that, we did error checking and run time checking too and made changes accordingly. We struggled to get 3rd action correct completely (execution time). We tried everything individually and also in a group to complete it. Finally we met on the 24th and finalized everything before submitting everything.

The method of coordination is discussed:-

Before starting working on the mini project we first met on 17th Nov and discussed how and what needs to be done and divided the work. Then throughout the weekend we worked on it and on the 23rd we met again and tested your functionality of code and made some adjustments to make the program work as intended. After that we used discord to communicate about code testing and possible improvements.