INF 551
Project Guidelines
Theme: Cloud-based Search App

The project consists of 3 phases: proposal, midterm report, final report & demo. The total point of the project is 100, broken down as follows.

- Proposal: 10 points
- Midterm report: 10 points
- Final report: 20 points
- Demo: 10 points
- Project implementation: 50 points

Requirements:

- Use case: Your app should have a real-world interesting use.
- Data set: Your app should store at least one real-world data set downloaded from Web (e.g., data.gov)
- Data format: Your app should store all its data in JSON format.
- Cloud data storage: It should store all its data in a **cloud database**. For example, Google Firebase, MongoDB on AWS, etc.
- Faceted search: It should present a faceted search interface which contains at least three facets. For example, book author, subject, and year. For each facet, it should provide users a list of choices (see WorldCat.org example attached).
- Keyword search: It should also provide a keyword search interface which should return results based on the degree of its relevancy with search. For example, if the search is "Bill Clinton", it should return books by Bill Clinton before books by Hillary Clinton.
- Save search: It should allow users to save the past searches (for this, you will need to ask users to create accounts) and execute the saved searches (see WorldCat.org example).
- User interface: it can be either web browser-based or mobile app.

Proposal:

Please write 1-2 pages, which should include the following contents:

- A description of your project idea.
    - What is the application you are building?
    - What kind of data will your project handle?
    - Where will the data come from?
    - Where do you plan to store the data?
    - What are the key components of your app and how they will interact with each other?

    - What kind of interface do you plan to implement (web browser, android, iOS)?
    - What programming languages and software libraries will you use?
- Group formation: who are in your group? What is each person's responsibility? Is your group equipped to implement the application by the end of the semester?
- Milestones: a project timeline with milestones (e.g., by the end of which week, you expect to finish which part, so on).

Midterm report:

Please write 2-5 pages, which should include the following contents:

- The detailed design and architecture of your app.
- Any changes you have made to your plan (e.g., change of cloud database systems used in the project)?
- Are you on track to achieve your milestones?
- Any challenges you have encountered? Any helps that you will need?
- Any other things you think should be reported in the midterm?

Final report:

Please write 5-10 pages, which should a comprehensive report. You may include the contents from your proposal and midterm report, with changes to reflect the final implementation of your project. The final report should have the following parts.

- Project motivation and goal.
- Architecture of the application: describe its major components, user interfaces, data management (data structure, query methods, etc).
- Implementation details, which include examples on how user interface works and how your app implements its functions.
- Documentation of your codes. At minimum, describe the structure of your code base. Mention any libraries used.
- Discussions on the advantages and disadvantages of the cloud database you are using.
- Describe the responsibility and work of each group member.

Presentations:

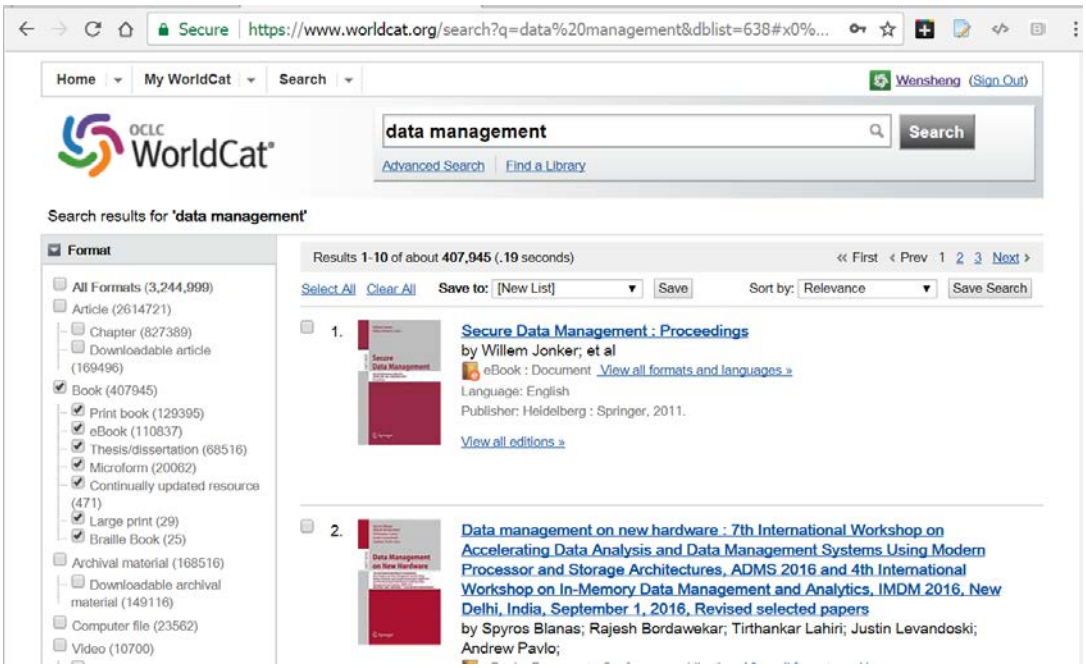
- There will be a 2-minute presentation of your proposal.
- Demo of your app (10-minute) will be in the last week.
- All group members should be present at the presentations.
- Please prepare presentation slides for all presentations.

Deliverables:

Your phase reports and project codes.

Example:

Please visit worldcat.org for an example of (faceted & keyword) search application.


Secure https://www.worldcat.org/search?q=data%20management&dblist=638#x0%...
Home
My WorldCat
Search
Wensheng (Sign Out)
OCLC WorldCat
data management
Search
Advanced Search
Find a Library
Search results for 'data management'
Format
All Formats (3,244,999)
Article (2614721)
Chapter (827389)
Downloadable article (169496)
Book (407945)
Print book (129395)
eBook (110837)
Thesis/dissertation (68516)
Microform (20062)
Continually updated resource (471)
Large print (29)
Braille Book (25)
Archival material (168516)
Downloadable archival material (149116)
Computer file (23562)
Video (10700)
Results 1-10 of about 407,945 (.19 seconds)
« First ‹ Prev 1 2 3 Next ›
Select All Clear All
Save to: [New List]
Save
Sort by: Relevance
Save Search
1.
Secure Data Management : Proceedings
by Willem Jonker; et al
eBook : Document View all formats and languages »
Language: English
Publisher: Heidelberg : Springer, 2011.
View all editions »
2.
Data management on new hardware : 7th International Workshop on Accelerating Data Analysis and Data Management Systems Using Modern Processor and Storage Architectures, ADMS 2016 and 4th International Workshop on In-Memory Data Management and Analytics, IMDM 2016, New Delhi, India, September 1, 2016, Revised selected papers
by Spyros Blanas; Rajesh Bordawekar; Tirthankar Lahiri; Justin Levandoski; Andrew Pavlo;