

Organisation Name : P. D. Hinduja Hospital & MRC

Problem Statement : Keyword based Exploration of Library Sources

Problem Statement ID : SI3

Team Name : Bugs of Hindostan

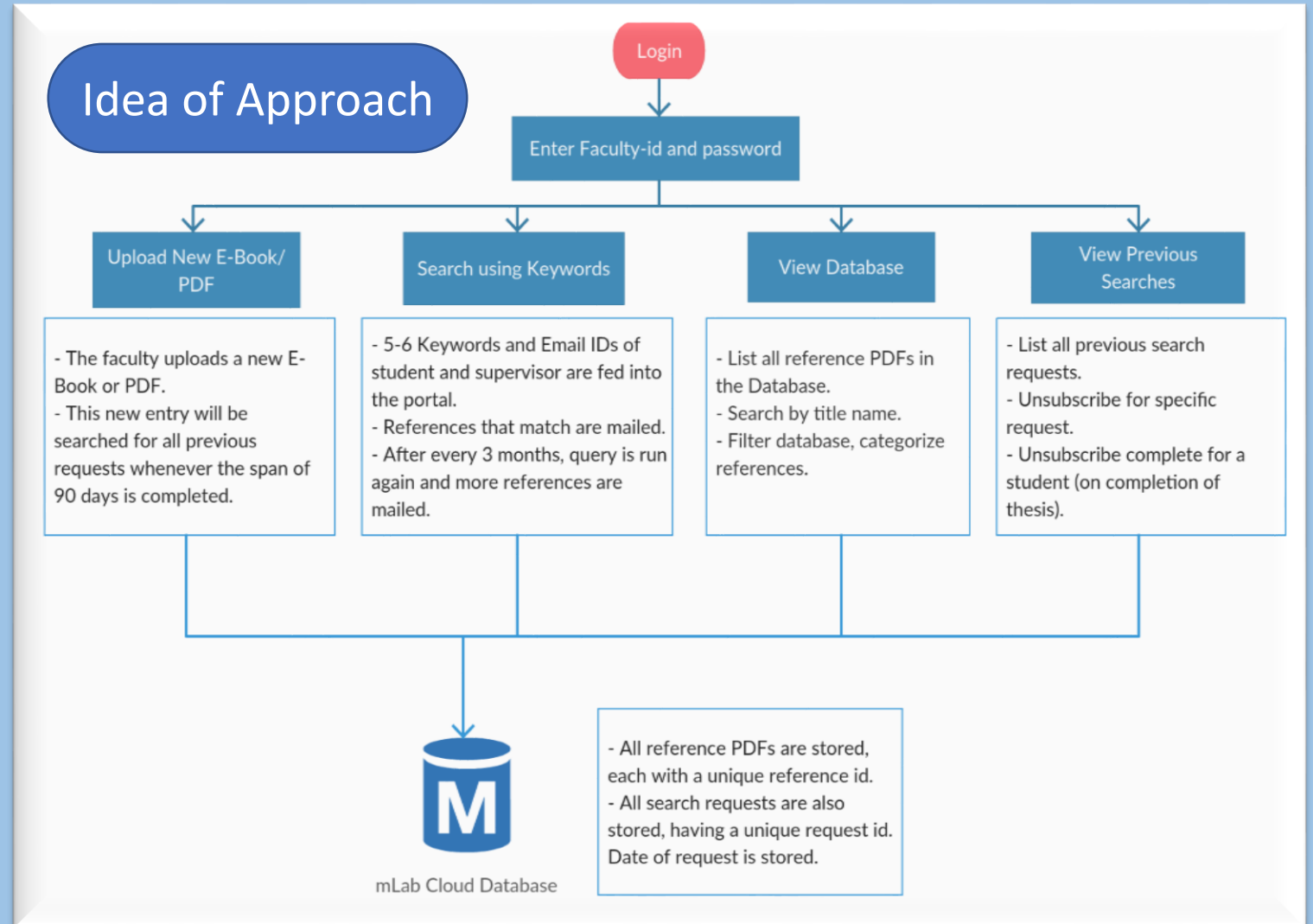
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Current Scenario

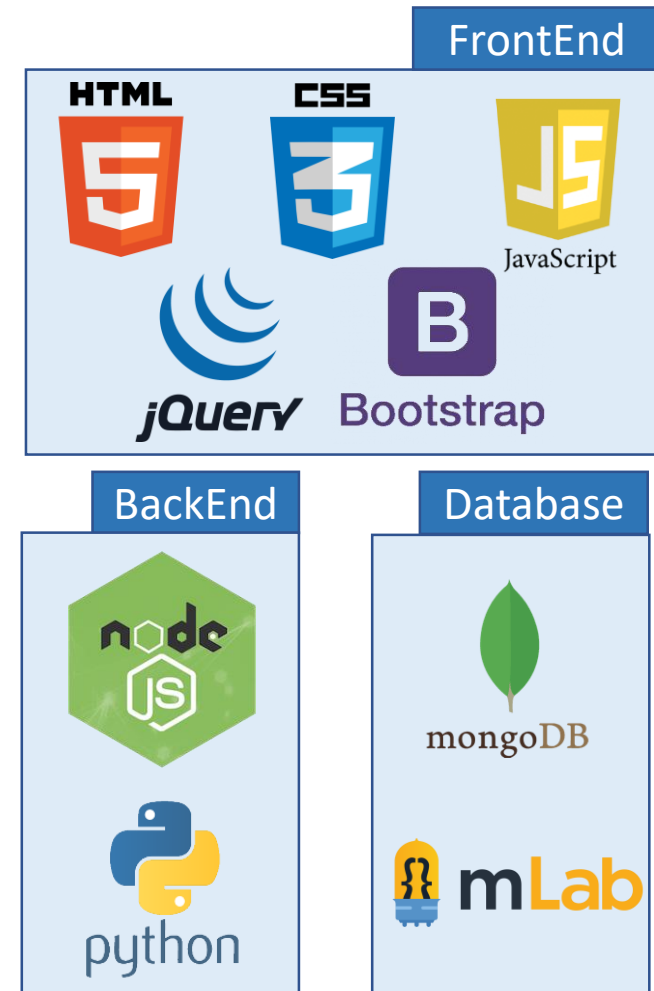
DNB Students require library support in order to complete their thesis. For their research topic, many reference articles, papers, e-Books and e-Journals are there in in-house library of Hinduja Hospital. But due to lack of a software portal, students face difficulties in searching and accessing the relevant articles.



Proposed Solution

- 1 All the articles, e-Books, etc are uploaded in the Web Portal. They are stored in a special tree form, known as **Trie**. The whole book is scanned initially, and all distinct words are stored in the Trie. Also, *stop words* such as “and”, “or”, “the”, are ignored, to improve efficiency.
- 2 Trie enables to search for the presence of a given keyword in **very little time**, much faster than other data storage practices. Hence, all the 1200+ articles will be searched for presence of a given keyword in a matter of seconds.
- 3 For a search query, the database is scanned and relevant articles are mailed using the **Nodemailer nodeJS** package. After 90 days, the articles which are uploaded after the search request, are retrieved from the **mLab Cloud Database**, and query is run again.
- 4 This process is repeated for every 3 months, till the thesis is completed. A given search query can be **unsubscribed** from, at any time.

Technology Stack



Quick
Search
using **Trie**.

Data
security on
**mLab Cloud
Storage**.



**Organized &
Categorized**
storage of
eBooks, etc.

**Pros of
Our
Approach**

Unsubscribe
anytime,
for finished
queries.



Ignoring
stop words
such as 'or'.

Stemming
of words
(run=ran=
running).

Dependencies

- mLab Cloud Storage
- NodeMailer nodeJS package

Use Case Diagram

