



Research Paper Repo

CS 6000-007 Masters Project



Project Report



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Research Paper Repo

Introduction

The Research Paper Repo is a web application that provides a platform for users to store, view, and upload research papers in PDF format. The application has a user-friendly interface that displays a list of uploaded papers and their titles, authors, and abstracts. The application also provides a user management system that allows the admin to create users, and users can register to use the application.

Goals

1. To provide a platform for researchers, students, and academics to store and access research papers in a centralized location.
2. To provide a user management system that allows for controlled access to the uploaded papers. To create a user-friendly interface that is easy to navigate and use.

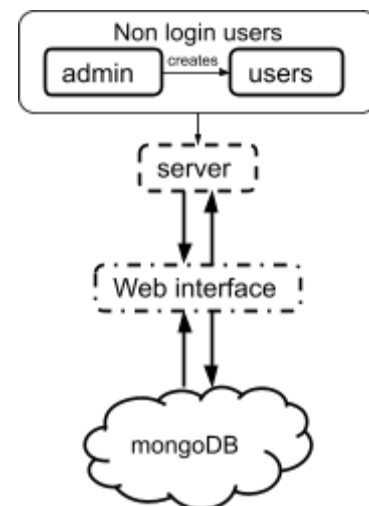
System Architecture

This web application is built using the following technologies.

Frontend - HTML, CSS, Next.js

Backend - Python, Node.js, Express.js

Database - MongoDB



Functionalities

I. Without Login

Before logging in, the user can

- View the list of uploaded documents and can download them.

II. After Login

→ Admin:

- ◆ Can add users.
- ◆ Upload research documents in pdf format.
- ◆ View the uploaded documents.

→ User:

- ◆ Register for the web application.
- ◆ Upload research documents in pdf format.
- ◆ View the uploaded documents.

Workflow

1. The user enters login credentials.
2. MongoDB checks if the user's credentials are valid.
 - 2.1. If valid → logs in to the user, allocate a session token for the user.
 - 2.2. If not valid → terminates the user.
3. The user uploads the document.
4. The backend checks if the user is authorized to upload the document, validates the session token of the user, and completes uploading the document.
5. The document is sent to the parser(python backend).
6. Python parses the document into JSON format.
7. Newly created json is sent to the MongoDB database.
8. The server loads the data and the newly uploaded file is displayed in the application.

Features

The main features of the Research Paper Repo are:

- User management system: Allows the admin to create users and users to register to use the application.

- View uploaded papers: Users can view the list of uploaded research papers on the home page. The list displays the paper title, author, and abstract.
- Upload papers: The registered users need to be logged in to upload their research papers in PDF format.
- Admin panel: The admin can manage the user accounts, and view the list of all uploaded papers.

Future Scope:

- Add a functionality where the user can edit/fill in the paper's title, author name, and abstract of a document.
- Search for papers: Users can search for papers using keywords related to the research topic or author name.
- Edit/delete papers: Users can edit or delete their own uploaded papers.
- The admin edits and deletes papers that do not meet the application's guidelines.
- The projects page is not yet developed. Its main function is to display the projects done.