MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR

(A Govt. Aided UGC Autonomous & NAAC Accredited Institute Affiliated to RGPV, Bhopal)

Project Report

on

Student Study Portal

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I

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CERTIFICATE

This is certified that **Somya Jain** (0901CS191122) has submitted the project report titled **Student Study Portal** under the mentorship of **Mr. Mir Shahnawaz Ahmad**, in partial fulfilment of the requirement for the award of degree of Bachelor of Technology in Computer Science and Engineering from Madhav Institute of Technology and Science, Gwalior.

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DECLARATION

I hereby declare that the work being presented in this project report, for the partial fulfilment of requirement for the award of the degree of Bachelor of Technology in Computer Science and Engineering at Madhav Institute of Technology & Science, Gwalior is an authenticated and original record of my work under the mentorship of **Mr. Mir Shahnawaz Ahmad, Assistant Professor**, Computer Science and Engineering.

I declare that I have not submitted the matter embodied in this report for the award of any degree or diploma anywhere else.

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Computer Science and Engineering

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ABSTRACT

The idea of developing a Student Study Portal is to make students self study easy. Now students can keep track of their own learnings by using various functions like making todo lists, using dictionaries for unknown words, reading various books and courses on youtube and writing notes, homework questions. Along with this, students can also keep track of how much work is done and what is left to be completed. The project uses various api's for youtube videos, wikipedia and dictionary search, and the user interface of the app is quite interactive to make user experience better, providing everything at one place and hence saving time from switching applications.

सार:

छात्र अध्ययन पोर्टल विकसित करने का विचार छात्रों को स्व-अध्ययन को आसान बनाना है। अब छात्र टूडू लिस्ट बनाने, अज्ञात शब्दों के लिए डिक्शनरी का उपयोग करने, यूट्यूब पर विभिन्न पुस्तकों और पाठ्यक्रमों को पढ़ने और नोट्स लिखने, होमवर्क प्रश्नों जैसे विभिन्न कार्यों का उपयोग करके अपने स्वयं के सीखने का ट्रैक रख सकते हैं।

इसके साथ ही छात्र इस बात पर भी नजर रख सकते हैं कि कितना काम हुआ है और क्या पूरा होना बाकी है।

परियोजना यूट्यूब वीडियो, विकिपीडिया और शब्दकोश खोज के लिए विभिन्न एपीआई का उपयोग करती है, और ऐप का यूजर इंटरफेस उपयोगकर्ता अनुभव को बेहतर बनाने के लिए काफी इंटरैक्टिव है, सब कुछ एक ही स्थान पर प्रदान करता है और इसलिए एप्लिकेशन स्विच करने से समय बचाता है।

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Chapter 1: Project Overview

1.1 Introduction:

A Portal is a web system that provides the functions and features to authenticate and identify the users and provide them with an easy, intuitive, personalized and user-customizable web-interface for facilitating access to information and services that are of primary relevance and interests to the users.

Student Portal is nothing but a portal which thinks student's as the main target users and provides so many useful services to students at a single place through a single interface but in customized form.

1.2 Objective and Scope:

The main objective behind construction of this portal is to provide a single place to students from where they can do all the study related activities without login to different websites. In other words, to provide a single place.

Students can keep up their assignments, course material, Notes, allows them to search words, learn from online books and many more.

It provides students to keep track of their completed and uncompleted work on a daily basis.

1.3 Object Features:

- Globally accessible

- Central place for all tasks
- 24 Hour accessible
- User friendly
- Secure and Personalized
- Enhance performance
- Saving of time and man-power

1.4 Methodology:

The tools, which were employed during this methodology stage, were mainly tables, Data Flow Diagrams and Entity Relationship Diagrams. The design ensures that only authorized users can access the system information.

1.5 Technologies Used:

PYTHON:

Python is an interpreted high-level general-purpose programming language. Its design philosophy emphasizes code readability with its use of significant indentation. Its language constructs as well as its object-oriented approach aim to help programmers write clear, logical code for small and large-scale projects.

DJANGO:

Django is a high-level Python web framework that encourages rapid development and clean, pragmatic design. Built by experienced developers, it takes care of much of the hassle of web development, so you can focus on writing your app without needing to reinvent the wheel. It's free and open source.Django features to consider if you're looking for the right framework to build a shop:

→ Scalability

→ Feature-rich

→ SEO-friendly

→ Reliable

SQLite:

SQLite is a relational database management system contained in a C library. In contrast to many other database management systems, SQLite is not a client–server database engine. Rather, it is embedded into the end program. SQLite generally follows PostgreSQL syntax.

HTML, CSS JavaScript:

HTML provides the basic structure of sites, which is enhanced and modified by other technologies like CSS and JavaScript. CSS is used to control presentation, formatting, and layout. JavaScript is used to control the behavior of different elements.

Chapter 2: Literature Survey

The literature and studies tackle the different concepts, understanding, and ideas, related to study from the past up to the present and which serves as the proponents guide in developing the project. Those that were also helps in familiarizing information that are relevant and similar to the present study.

Foreign

Based on Chalmers The Student Portal, you will find information about studies at Chalmers and the services that facilitate your studies. Here you can find information about courses. In addition to the web pages, the student study portal serves as an interface to a range of services in different systems.

The student Portal has a responsive design i.e. the design adapts to fit the size of the screen regardless of browser or device.

The contents of the student portal are divided into home, notes, homework, youtube, dictionary, conversions, todo list, books.

Chapter 3: Preliminary Design

Actions performed:

Functions access by only authorised students:

Notes

- Make notes
- Update notes
- Delete notes

ToDo-List

- Make todo-list
- Update todo-list
- Delete todo-list

Homework

- Write homework
- Update homework
- Delete homework

View Profile

Functions accessed by anyone is:

- Login
- Logout
- Register
- YouTube videos
- Dictionary
- Conversion of dimensions
- Searching Books

ER Diagrams:

Dashboard:

User-Defined database tables

Notes:

Notes	
id	BigAutoField
user	ForeignKey (id)
Description	TextField
Title	CharField

Homework:

HomeWork	
id	BigAutoField
user	ForeignKey (id)
description	TextField
due	DateTimeField
status	BooleanField
subject	CharField
title	CharField

Todo:

ToDo	
id	BigAutoField
user	ForeignKey (id)

status	**BooleanField**
title	**CharField**

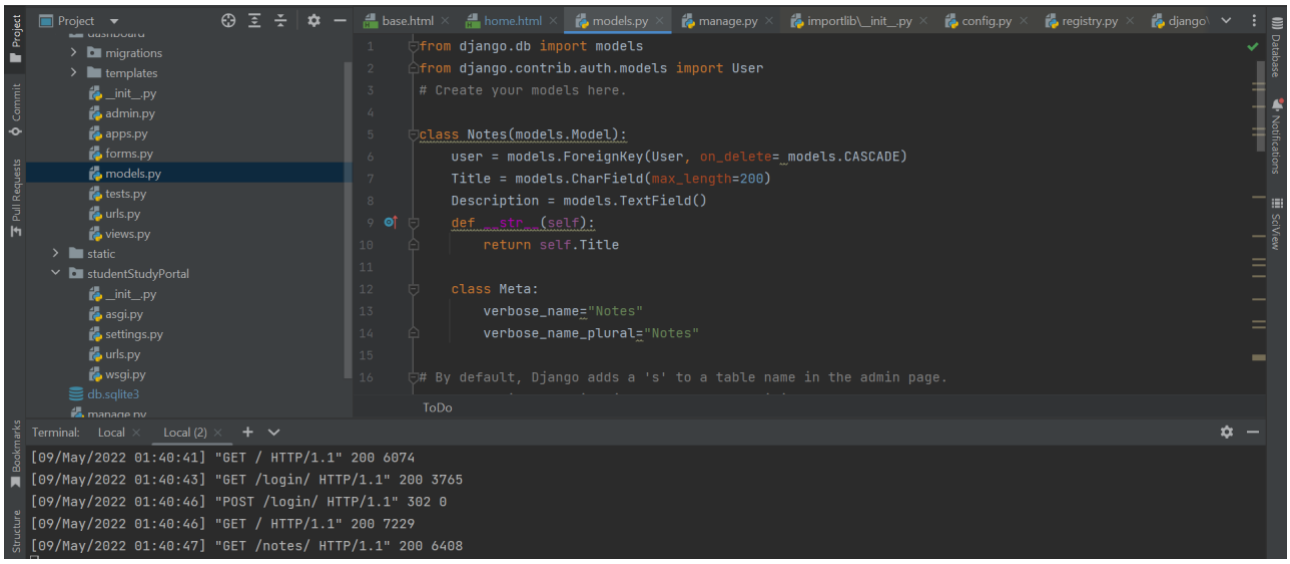
Chapter 4: Final Analysis and Design

The web application is used by students to keep track of their daily work. It is solely used to improve student's academic performance.

The web-app is built using django, python as backend, bootstrap, css, html, sqlite3 as database.SA

4.1 Structures of the Project File

Django is a Model View Control (MVC) framework



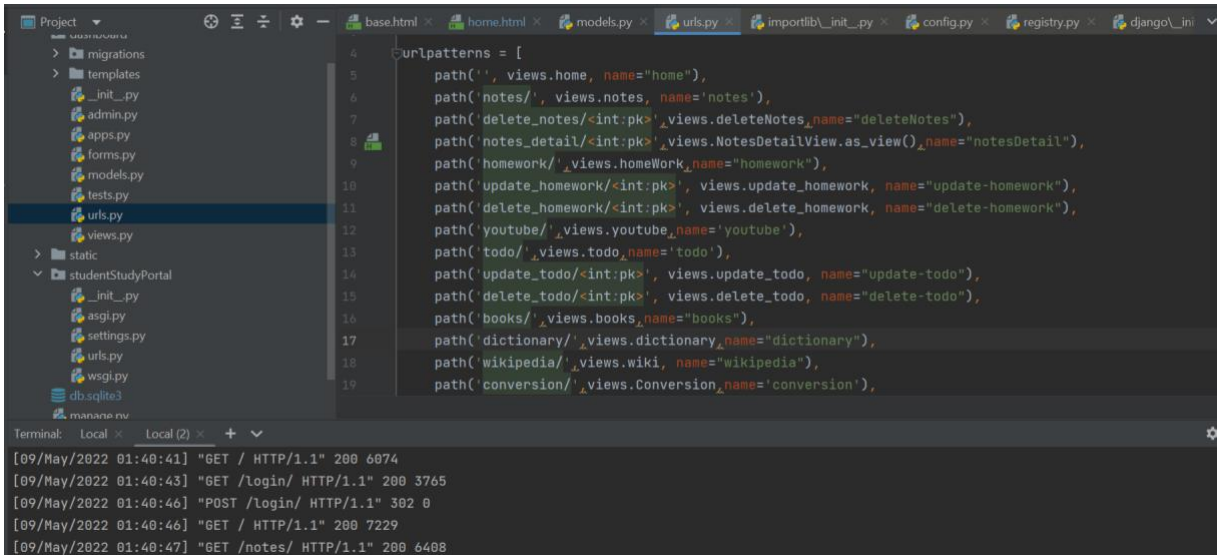
• Mange.py -This file is used basically as a command-line utility and for deploying, debugging, or running our web application. It contains code for run-server, or make migrations or migrations, etc. that we use in the shell. Anyway, we do not need to make any changes to the file.

• Db.sqlite3 is the database file.

• Static folder contains all the static files like CSS and images.

• Dashboard folder is the Django projects consisting of init, admin, models, views, apps and forms.

• Models are basically the blueprints of the database we are using and hence contain the information regarding attributes and the fields etc of the database.



• Views is a crucial one, it contains all the Views (usually as classes). Views.py can be considered as a file that interacts with the client. Views are a user interface for what we see when we render a Django Web application.

• URLs Just like the project urls.py file, this file handles all the URLs of our web application.

• Dashboard folder is the Django application directory consisting of the following essential files.

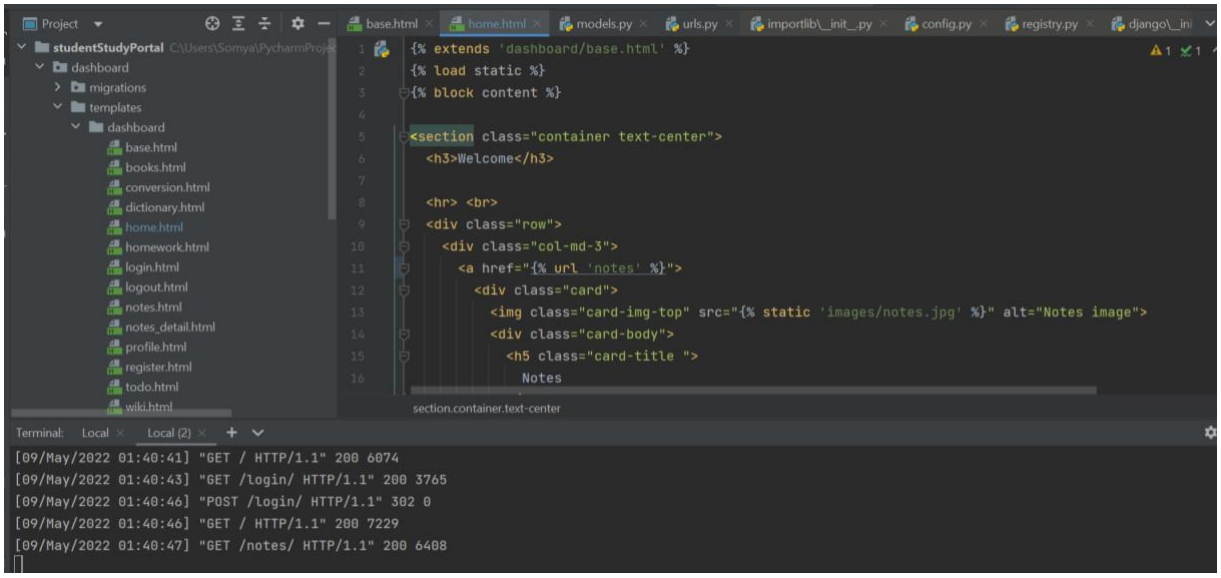
• Init.py This file remains empty and is present only to tell that this particular directory is a package.

• Settings.py This file is present for adding all the applications and the middleware application present. Also, it has information about templates and databases. Overall, this is the main file of our Django web application.

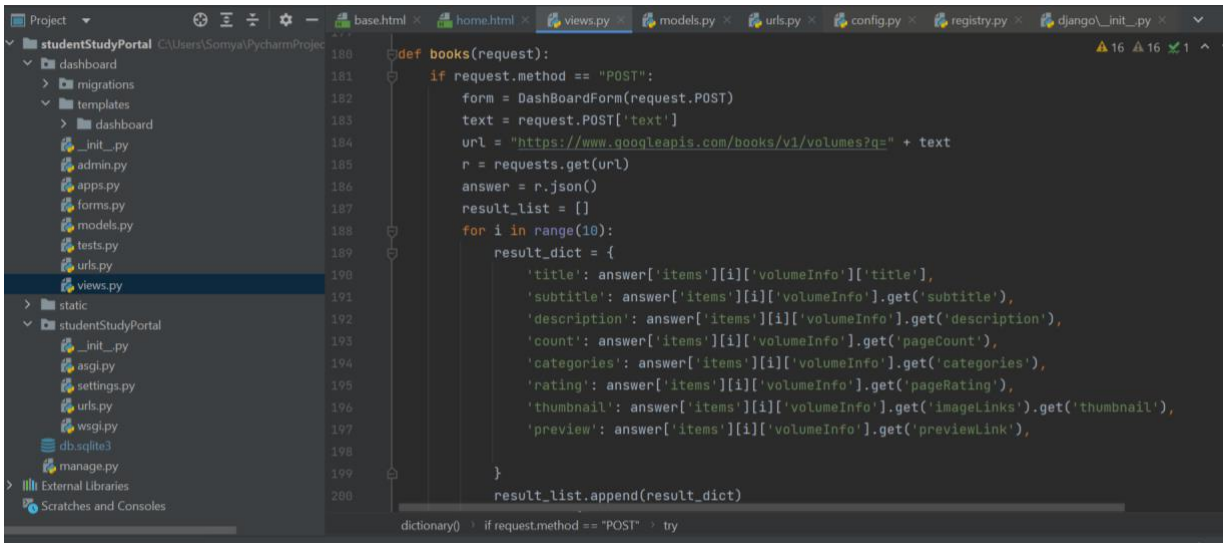
• Urls.py This file handles all the URLs of our web application. This file has the lists of all the endpoints that we will have for our website.

• Wsgi.py This file is mainly concerned with the WSGI server and is used for deploying our applications on servers like Apache etc.
Asgi.py In the newer versions of Django, you will also find a file named as asgi.py apart from wsgi.py. ASGI can be considered as a successful interface to WSGI. ASGI, short for Asynchronous Server Gateway interface.

- Template Files contain all the HTML files of the application



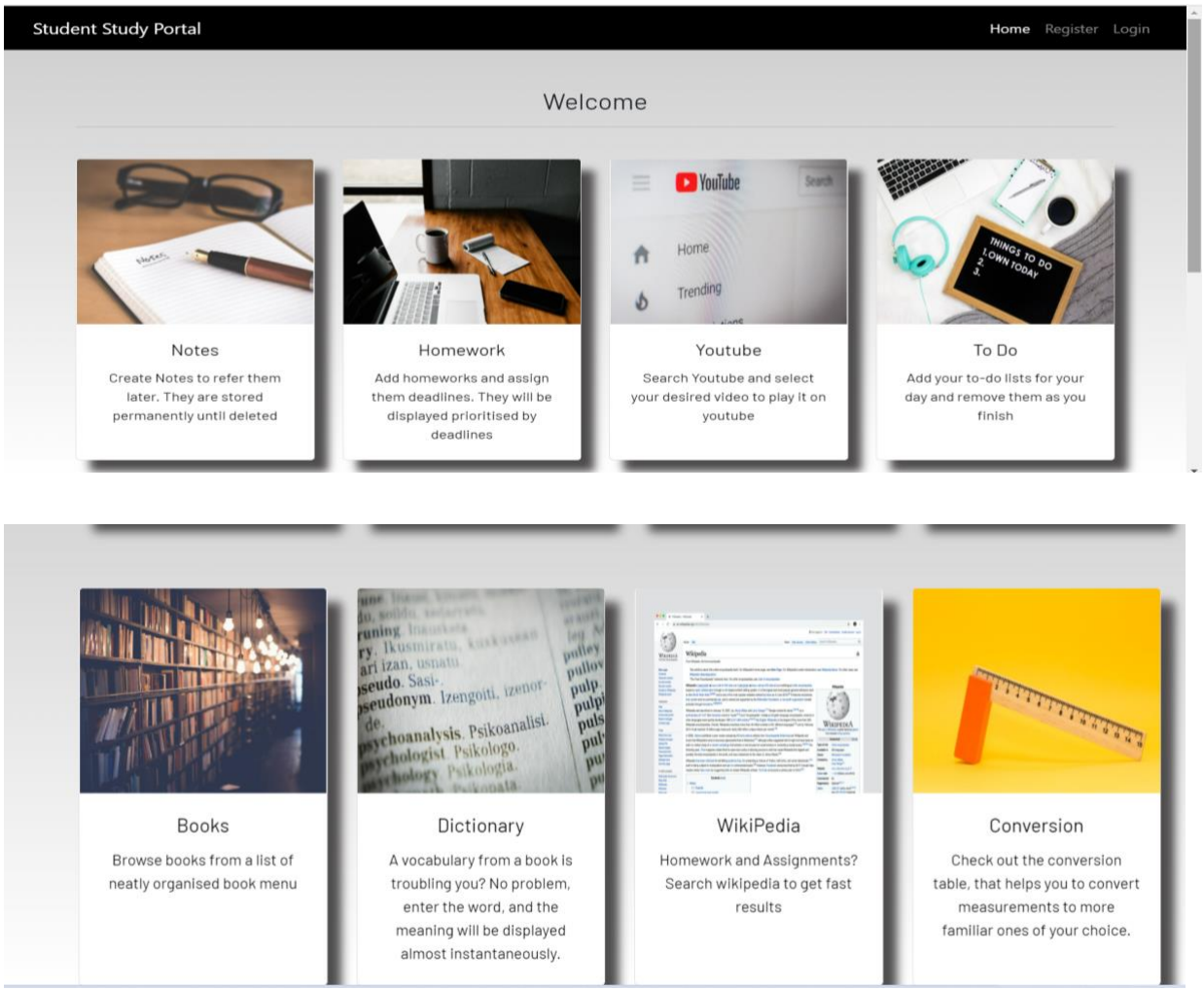
- Books function implementations using api hit



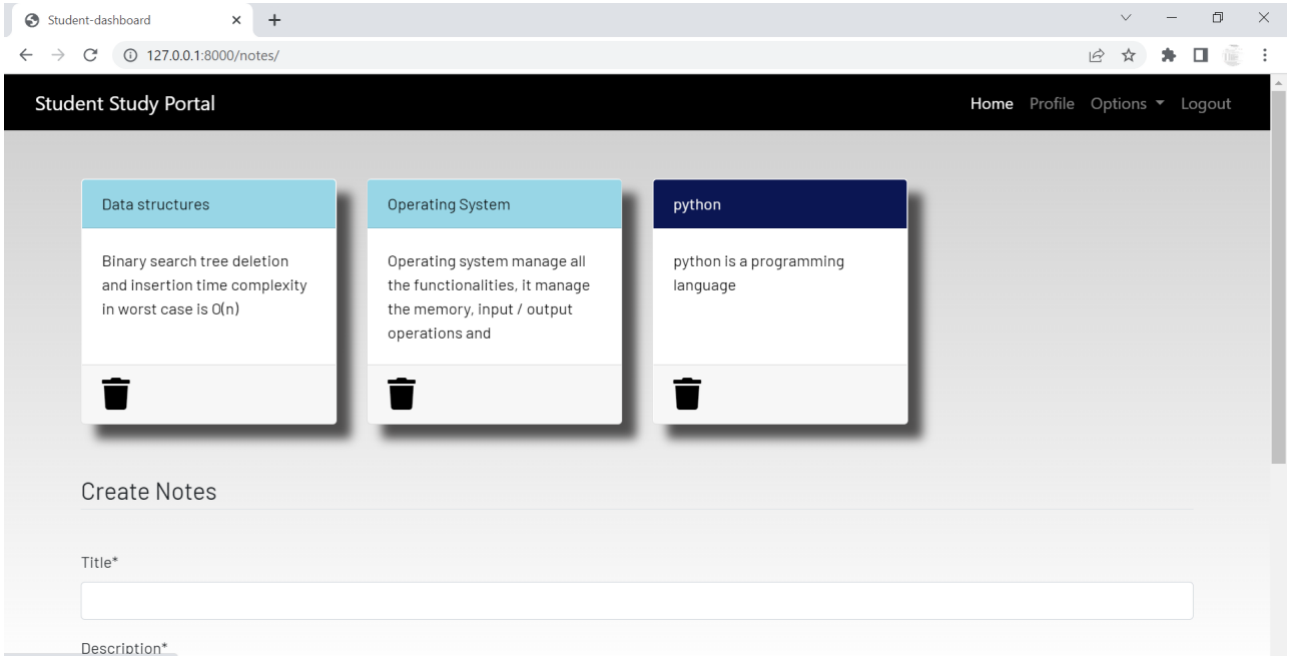
4.2

Result

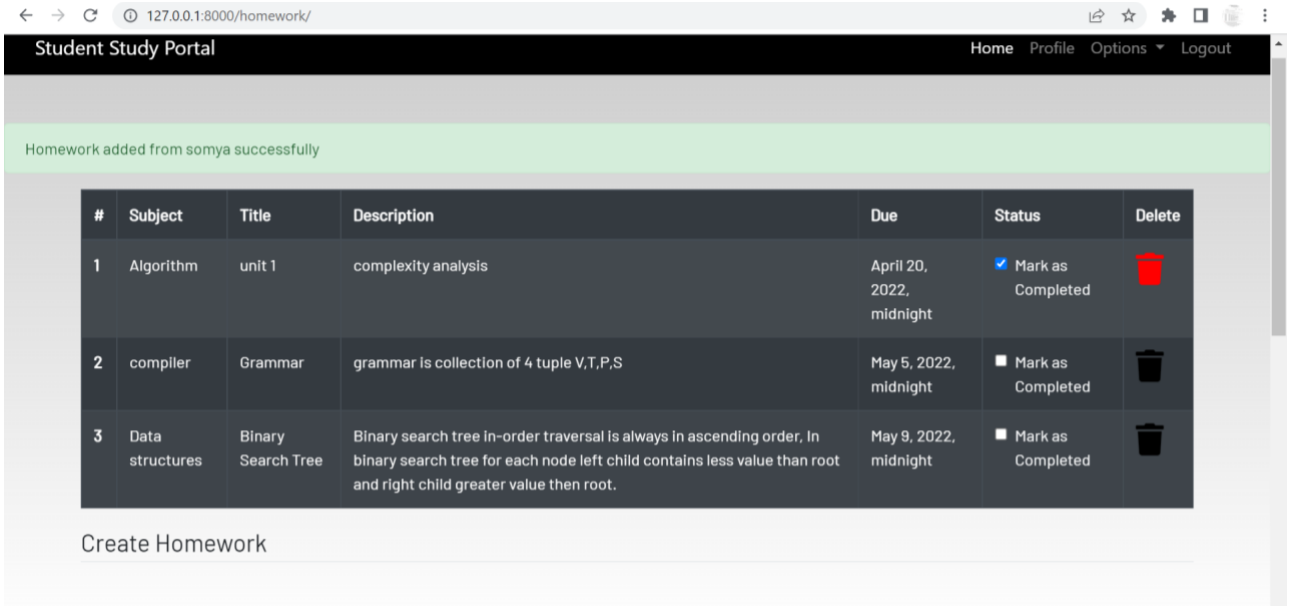
Home


Student Study Portal
Home Register Login
Welcome
Notes
Create Notes to refer them later. They are stored permanently until deleted
Homework
Add homeworks and assign them deadlines. They will be displayed prioritised by deadlines
YouTube
Search
Home
Trending
Youtube
Search Youtube and select your desired video to play it on youtube
THINGS TO DO
1. OWN TODAY
2.
3.
To Do
Add your to-do lists for your day and remove them as you finish
Books
Browse books from a list of neatly organised book menu
Dictionary
A vocabulary from a book is troubling you? No problem, enter the word, and the meaning will be displayed almost instantaneously.
WikiPedia
Homework and Assignments? Search wikipedia to get fast results
Conversion
Check out the conversion table, that helps you to convert measurements to more familiar ones of your choice.

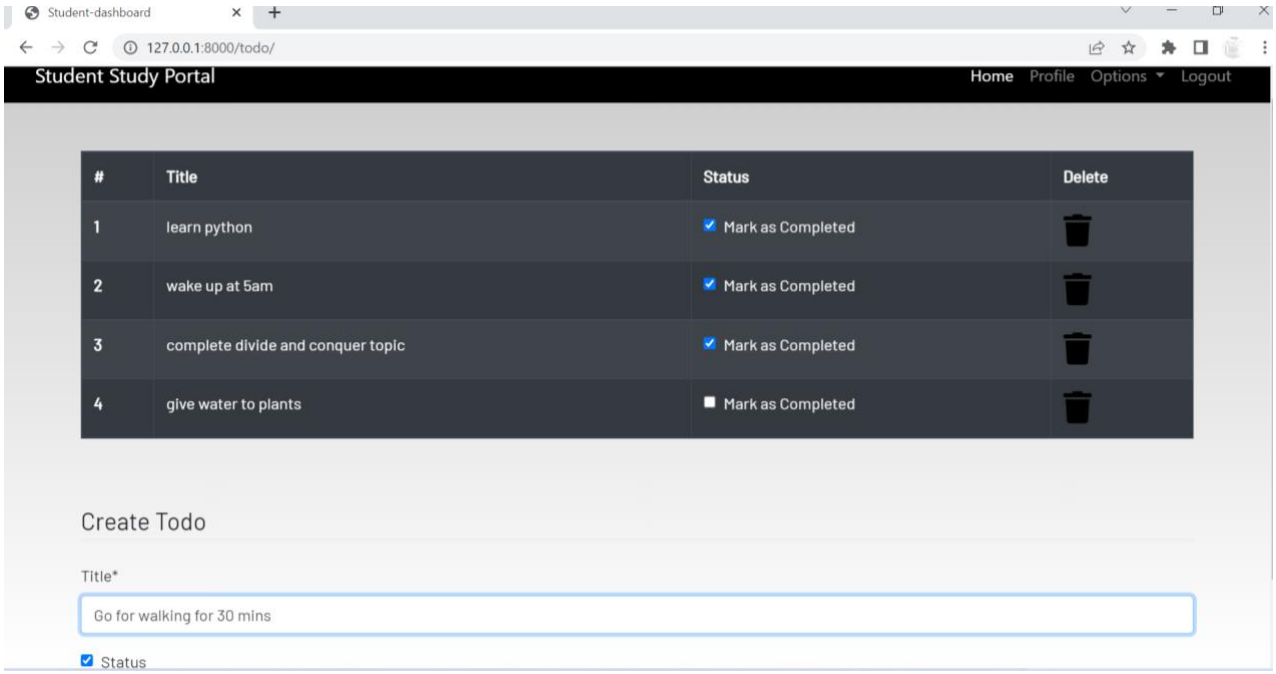
Notes:


Student-dashboard
127.0.0.1:8000/notes/
Student Study Portal
Home Profile Options Logout
Data structures
Binary search tree deletion and insertion time complexity in worst case is O(n)
Operating System
Operating system manage all the functionalities, it manage the memory, input / output operations and
python
python is a programming language
Create Notes
Title*
Description*

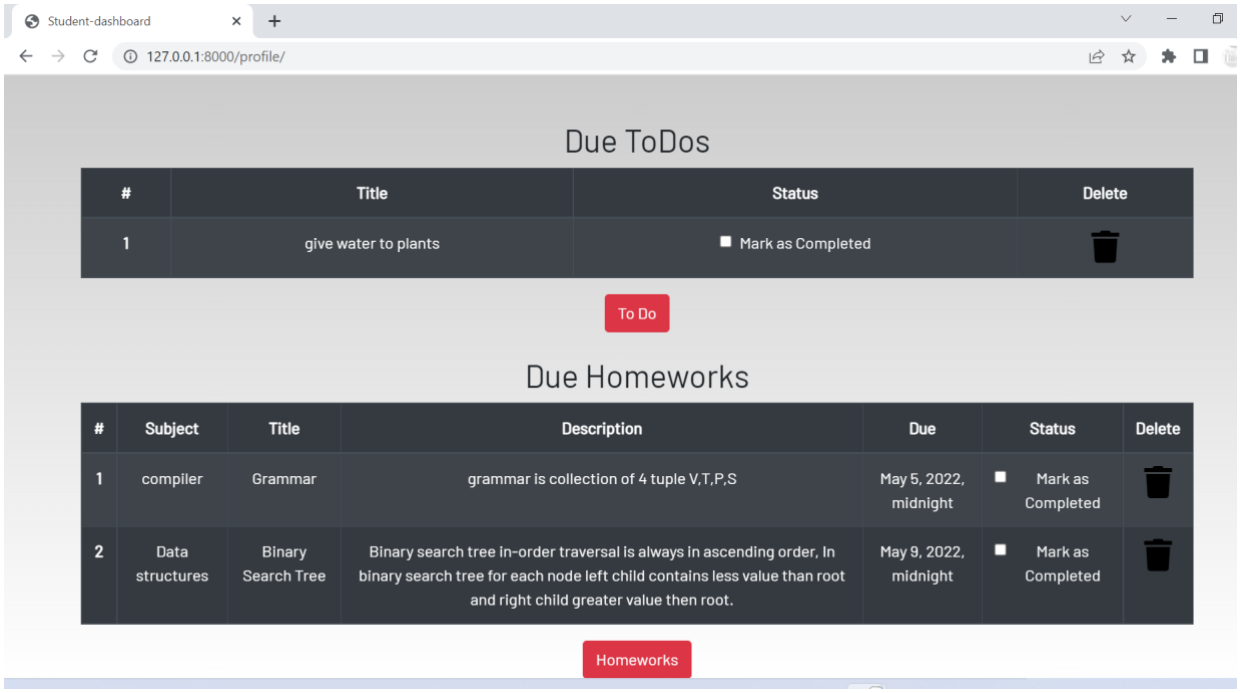
Homework



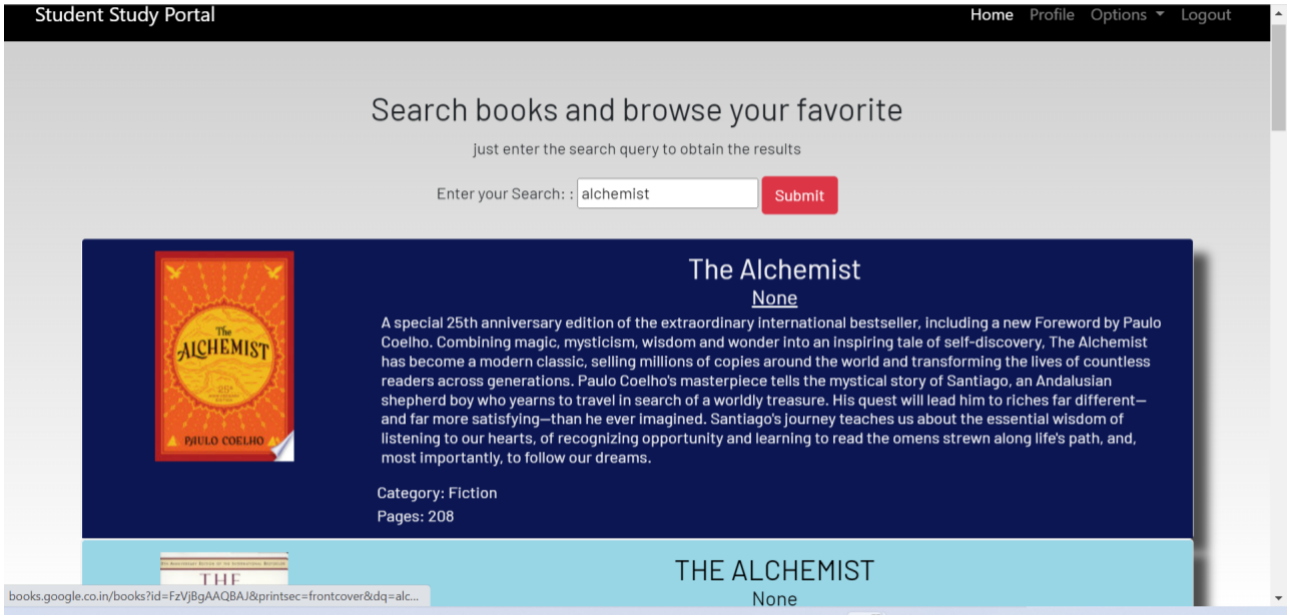
Todo-list



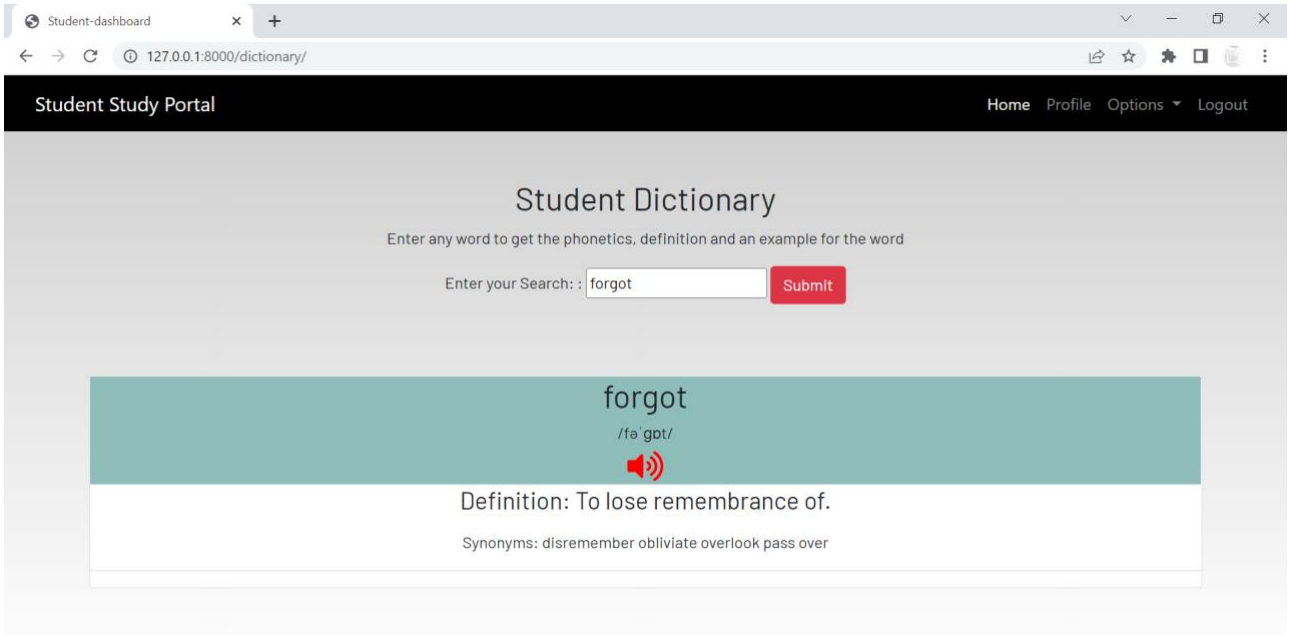
Profile will show only the incomplete homework and todo's



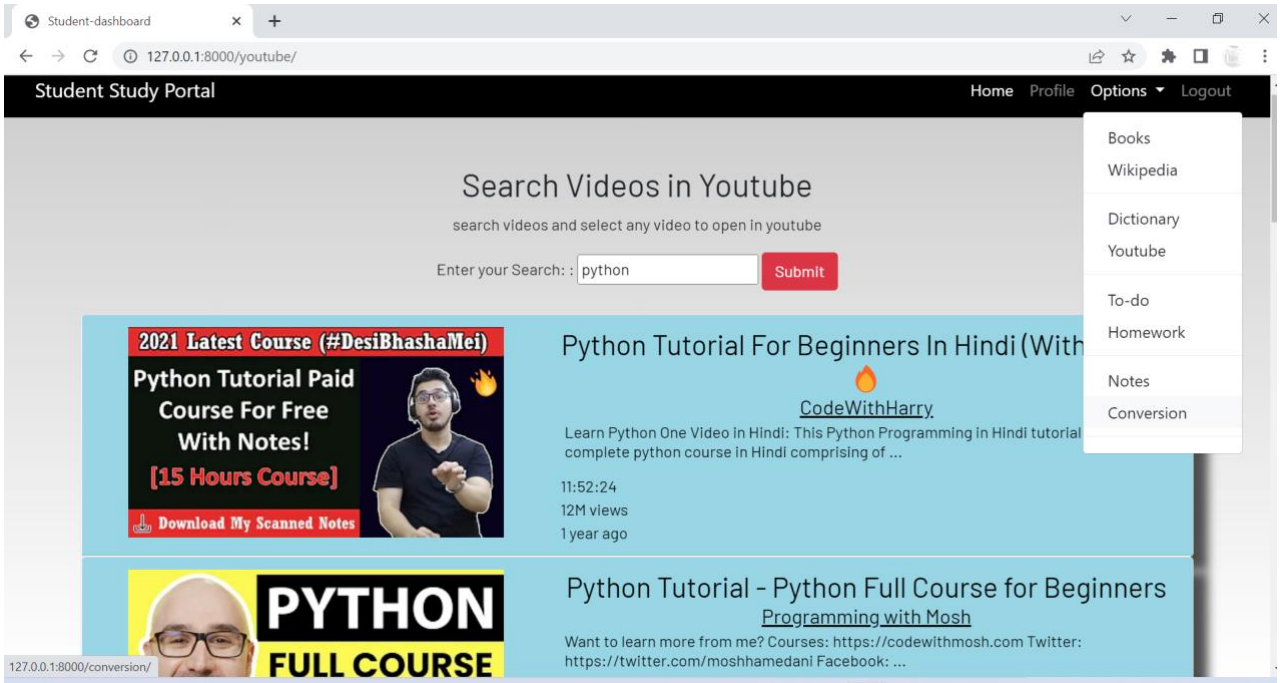
Book search



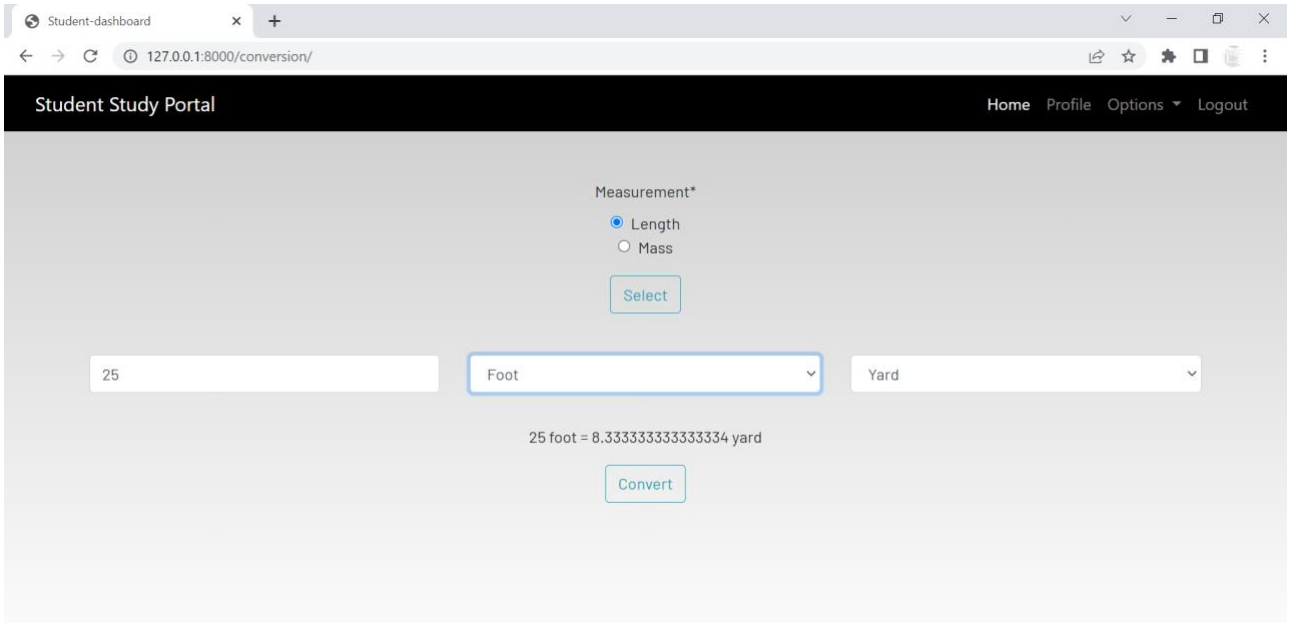
Dictionary



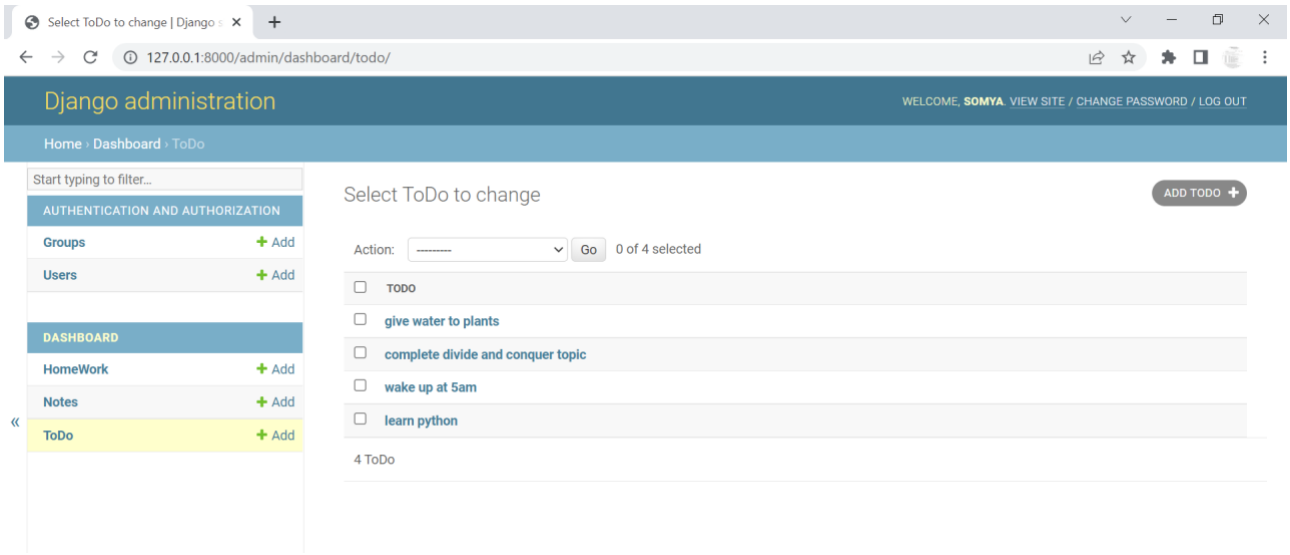
Youtube



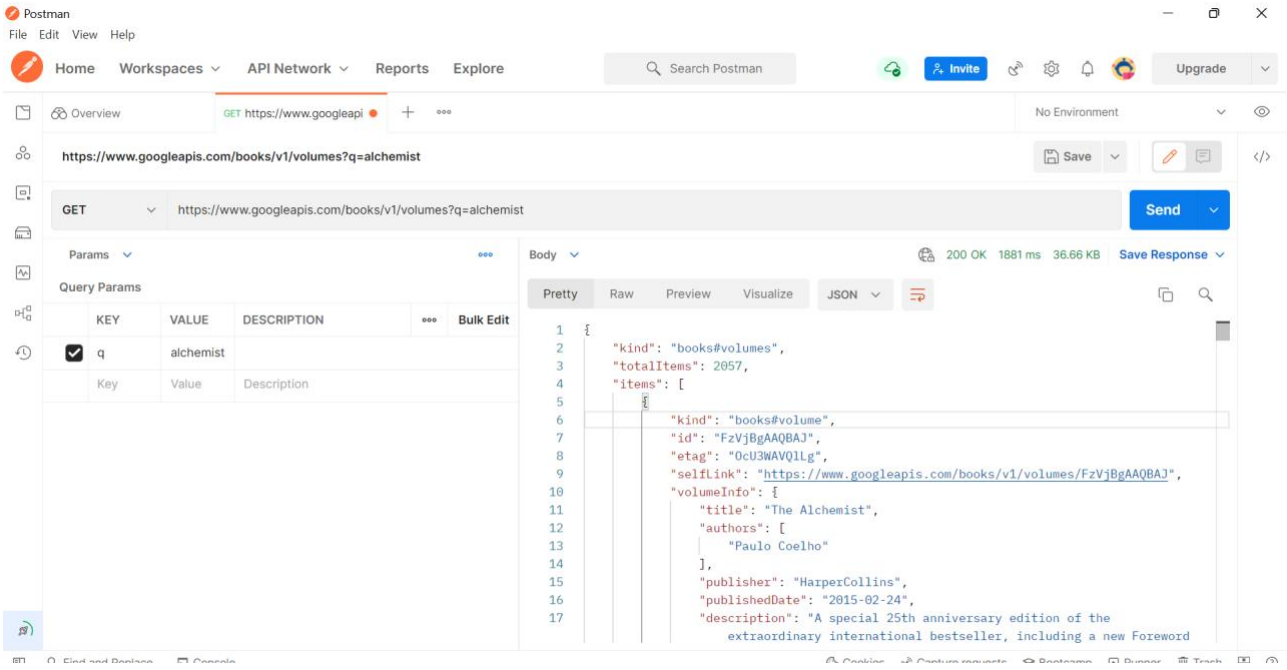
Conversion



Various Models



Catching api request



4.3 Limitations

This project is only limited to students self study purpose, students can not upload their own files, images etc.

There is no notification system to remind students of the pending work.

There is no download books option, so each time we read the book, our internet should be on.

Chapter 5: Conclusion

5.1 Conclusion:

The Student study portal can improve the student learning process, Student's can keep track of themselves and learn to analyse their own progress.

It provides all the functionalities used by students at one place helping them to be more focussed, and enhancing their performance.

It makes the student more aware of their time usage and daily works, helping them to be more disciplined.

5.2 Future Scope:

We will add an upload files option for students to upload their own documents in the app, also we will try to add all the possible conversions in the conversion list.

The more searching sites can be added.

We will also provide courses for students to make them learn more in a systematic way

Notification system will be added to make sure that students complete the incomplete task on that day itself.

Focused study sessions alarm system we will add to keep track of how much time we are taking to learn and how we can optimize it.

5.3 References:

- Book name: Django for beginners
  Author: William S. Vincent
- Book name: Django for Professionals
  Author: William S. Vincent