StudyMaster

➤ Description

It is a robust web application developed using the MERN stack (MongoDB, Express.js, React.js, Node.js) designed to serve as a one-stop solution for students seeking organized educational materials and video lectures. This platform categorizes content meticulously by subjects and semesters, facilitating easy navigation and resource retrieval. Additionally, it integrates interactive features that allow students to communicate with teachers through a chat-box, fostering a dynamic and responsive educational environment. Teachers can seamlessly upload materials and manage course content, ensuring that students have access to up-to-date information and resources. This study explores the development and functionality of StudyMaster, highlighting its potential to streamline educational resource management and enhance teacher-student engagement. By leveraging modern web technologies, StudyMaster aims to bridge the gap between students and educators, providing a comprehensive and interactive learning platform that meets the evolving needs of the academic community.

- ### **Centralized Repository of Educational Resources**

StudyMaster serves as a comprehensive repository of educational materials, offering an extensive range of study resources and video lectures. The platform ensures that all content is meticulously categorized according to subjects and semesters, facilitating easy access and navigation for students. By providing a well-organized database of materials, StudyMaster helps students save time and enhances their ability to focus on learning.

- ### **Enhanced Teacher-Student Interaction**

One of the key features of StudyMaster is its emphasis on fostering effective communication between students and teachers. The integrated chatbox feature allows students to directly interact with their instructors, ask questions, seek clarifications, and receive timely feedback. This real-time communication tool

helps bridge the gap between students and educators, promoting a more engaging and supportive learning environment.

- **Simplified Content Management for Teachers**

For teachers, StudyMaster offers a user-friendly interface to upload and manage educational content. Teachers can easily add new study materials and video lectures, ensuring that students always have access to the latest and most relevant information. This feature not only simplifies the content management process for educators but also ensures that the platform remains up-to-date with current academic requirements.

- **Comprehensive Academic Support**

StudyMaster is designed to cater to the diverse needs of students across various academic disciplines and levels. By offering a wide array of resources and facilitating interactive learning, the platform provides comprehensive academic support that goes beyond traditional classroom settings. This holistic approach to education aims to enhance the overall learning experience and academic performance of students
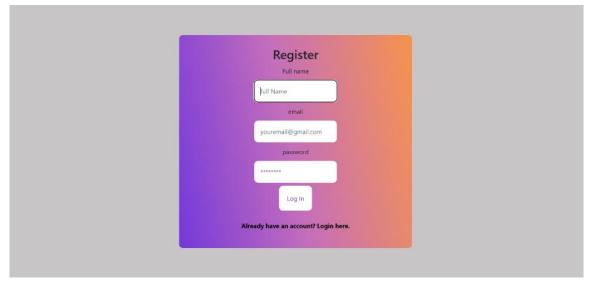
➢ Structure

```
StudyMaster
 ├── backend
 │   ├── api
 │   │   > NodeJS
 │   │   > PORT 8000
 │   │
 │   ├── authentication
 │   │   > JWT token
 │   │   > ExpressJS
 │   │   > NodeJS
 │   │
 │   ├── database
 │   │   > MongoDB
 │   │
 │
 ├── frontend
 │   ├── app
 │   │
 │   │   └── web
 │   │       > React
 │   │       > Single page application
 │   │       > PORT 5000
 │   │
 │
 └── README.md (you are here)
```
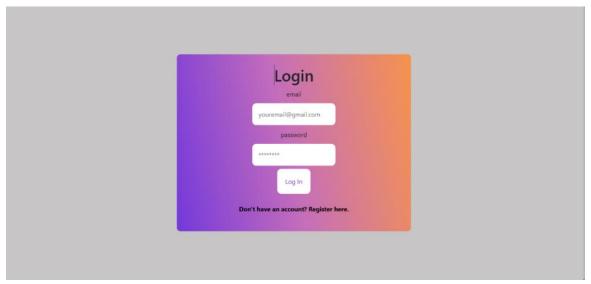
➢ Features

i. Registration page

The new registration page of the StudyMaster features a straightforward design, focusing on simplicity and ease of use. Users are required to fill in only three fields: name, email and password, ensuring a quick signup process. This page also allows teachers and students to register separately. The form also includes real-time validation to help users correct errors immediately and also provides link to Login page for already registered users.

Registration Page

ii. Login Page

The login page of StudyMaster features a clean and intuitive interface ensuring a seamless user experience. It incorporates secure authentication methods, using email and password fields. The design is responsive and error messages are clearly displayed to guide users in case of incorrect login attempts. Additionally, the page providers link to account creation for new users.
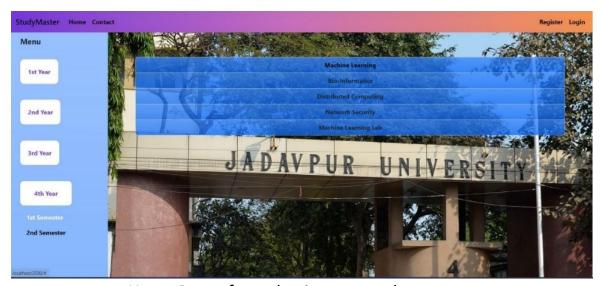

Login Page

iii. Home Page

The Home page enlists the even and odd semesters year-wise in a collapse menu on the left side. The year and semester selected would open the list of subjects for that semester. Students or teachers can select the subject they want and they would be directed to the materials page for that subject.
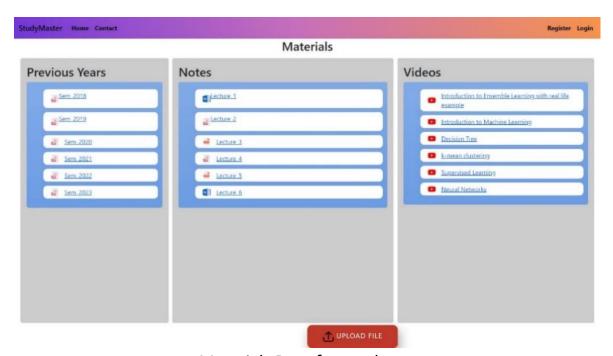

Home Page

Home Page after selecting year and semester

iv. Materials Page

This page enlists the materials for the subject selected. The materials precisely include the study materials, previous year questions and links to YouTube videos for the subject to ensure better understanding of concepts. Students can access the materials seamlessly. A chat-box has also been provided for the students to ask any doubt to the teachers from their portal. Teachers can upload materials for students anytime from their portal.

Materials Page for teachers

Materials Page for students

v. Contact Page

Any message from the contact page is received by us so that they are known and can be worked upon.

Contact Page

> ## Usage

Step 1:

Open StudyMaster and register from the registration page.

Step 2:

If you are already registered, go to the login page and sign in.

Step 3:

From the Home Page select the year and semester.

Step 4:

Select the subject from that semester that is needed.

Step 5:

From the materials page, select the material pertaining to the particular topic or previous year paper or YouTube video related to the topic.

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