

StudyBud Project Rreport

CSE 416: Software Project Design and Development Lab



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Repository Link: <https://github.com/Ramim2499/studybud>

### **Title:** (StudyBud ) Web based learning platform.

### **Introduction:**

### In today's interconnected world, the demand for collaborative learning platforms has significantly increased. This project aims to design and develop a Study Group Website, a user-friendly platform where students can connect, create, and participate in study groups to enhance their learning experience.

### The primary objective of this project is to create a digital space that fosters collaboration among learners, enabling them to share resources, schedule group sessions, and engage in meaningful discussions. This platform will serve as a central hub for students with shared academic interests, allowing them to build communities that support their educational goals.

Key Features of the StudyBud Website:

* **User Registration and Profiles:** Allow users to create personalized profiles, specifying their areas of interest and expertise.
* **Study Group Creation and Management:** Enable users to form study groups, invite members, and set topics or goals for collaboration.
* **Scheduling and Notifications:** Integrate a scheduling system for group meetings, with automated reminders and calendar synchronization.
* **Resource Sharing:** Provide tools for uploading and organizing study materials such as documents, videos, and links.
* **Interactive Forums:** Foster discussions through integrated forums or chat features.

Learning Outcomes:

* Enhance their understanding of web development fundamentals, including front-end and back-end technologies.
* Work collaboratively using version control systems like Git to simulate real-world software development practices.
* Develop problem-solving skills by addressing challenges related to usability, scalability, and security.

### Methodology:

The development of the StudyBud Website will follow an iterative and structured methodology to ensure efficiency, collaboration, and the delivery of a functional and user-friendly platform. The project will employ the Agile Development Process, emphasizing incremental development, continuous feedback, and adaptability.

**Phase 1: Planning and Requirements Gathering**

1. **Objective Definition**: We have defined the primary purpose and scope of the website.
2. **Requirement Analysis**: We Identifies user needs through brainstorming sessions, surveys, and focus groups to outline core features.
3. **Technology Stack Selection**: We Choose the tools, frameworks, and technologies for the project (HTML, CSS, Python, React, Django, etc.).
4. **Task Allocation**: We Distributed the responsibilities among team members based on their strengths and expertise.

**Phase 2: Design**

We make sure to focus on the design to make our website more attractive.

1. **Wireframing and Prototyping**:
   * Create low-fidelity wireframes to define the layout and navigation of the website.
   * Develop high-fidelity prototypes to visualize the user interface (UI).
2. **User Experience (UX) Design**: Focus on designing intuitive workflows and seamless interactions.
3. **Feedback Loop**: Share the design prototypes with stakeholders for feedback and make revisions accordingly.

**Phase 3: Development**

We used multiple platform and frameworks to successfully develop our website like:

1. **Front-End Development**:
   * Implement responsive web design using HTML, CSS, and Python frameworks.
   * Ensure cross-browser compatibility and mobile responsiveness.
2. **Back-End Development**:
   * Build the server-side functionality using frameworks like Django.
   * Implement a database (SQLIte3) to manage user profiles, group data, and shared resources.
3. **Integration**: Connect the front-end and back-end components through APIs or server-side rendering.
4. **Version Control**: Use Git and platforms like GitHub for collaborative code management and tracking progress.

**Phase 4: Testing**

We have done testing our website by the following methods.

1. **Unit Testing**: Test individual components to ensure each feature works as intended.
2. **Integration Testing**: Verify that different modules of the website work together seamlessly.
3. **User Testing**: Collect feedback from potential users by providing access to a beta version of the website.
4. **Bug Fixing**: Address issues identified during testing and refine the platform accordingly.

**Phase 5: Deployment**

1. **Hosting**: We are ready to deploy the website on a reliable hosting platform.
2. **Domain Setup**: StudyBud is a custom domain for the website.
3. **Final Review**: We have Conduct a final walkthrough to ensure everything is functioning correctly.

**Phase 6: Maintenance and Iteration**

We will maintain our website by prioritizing these parameters.

1. **Performance Monitoring**: Use analytics tools to track website performance and user engagement.
2. **Regular Updates**: Continuously improve features based on user feedback.
3. **Bug Fixes and Security**: Address vulnerabilities and keep the website secure with regular updates.

### Demo of StudyBud:

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A screenshot of a chat

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A screenshot of a computer

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A screenshot of a chat

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A screenshot of a video chat

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**A screenshot of a computer

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Project Code:

**urls & routiog:**

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A screenshot of a computer program

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### A computer screen with text Description automatically generated

**Database:**

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A screen shot of a computer code

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**Views.py:**

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### Conclusion:

By the end of this **project**, the StudyBud website will be a functional platform showcasing the collaborative efforts and technical skills of the team. It will not only serve as a valuable educational tool but also act as a testament to the team's ability to create meaningful web solutions.

Let's embark on this exciting journey of learning and innovation together!

### GitHub Link:

<https://github.com/Ramim2499/University_Study.git>