Malnad College of Engineering

Under the auspices of M.T.E.S
(An Autonomous Institution Affiliated to VTU, Belgaum)
P.B No. 21, Hassan-573 202, Karnataka

Report on

Mini Project - 2 (21IS605)

STUDENT PROJECT MANAGEMENT SYSTEM

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CERTIFICATE

Certified that the Miniproject-2(21IS605) work carried out by 4MC21IS023, 4MC21IS028,4MC21IS032, 4MC21IS034 is a Bonafede work, submitted during academic year 2023-24, in partial fulfilment for the award of B.E degree in Information Science & Engineering. All the corrections suggested during the internal evaluation are incorporated in the project report. This report has been approved as it satisfies the academic requirements of Miniproject-2(21IS605) prescribed for the Bachelor of Engineering degree.

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1.	
2.	

ACKNOWLEDGEMENT

We have made efforts in this project. However, it would not have been possible without the kind support and help of many individuals and organizations. We would like to extend our sincere thanks to all of them.

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Chethan Nazre S
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ABSTRACT

"Student Project Management System" is a robust solution designed for the efficient management of student projects. Leveraging web-based technology, it streamlines the assignment, tracking, and evaluation processes, ensuring equitable distribution and minimizing administrative conflicts. The system provides real-time updates, user-friendly interfaces, and seamless integration with academic schedules, optimizing the overall project management experience.

CONTENTS

FIGURES

SNAPSHOTS

CHAPTER 1

INTRODUCTION

1.1 INTRODUCTION TO THE STUDENT PROJECT MANAGEMENT SYSTEM:

"The Student Project Management System" (SPMS) is a comprehensive platform designed to facilitate knowledge sharing and collaboration among students at our college. With the rapid advancement of technology and the increasing complexity of projects, it has become essential for students to have access to a repository of past projects completed by their seniors and alumni.

The SPMS aims to address this need by providing a centralized platform where students can explore, learn from, and draw inspiration from a diverse range of projects. In today's academic environment, the ability to efficiently manage and access information is crucial for student success. The SPMS is not just a repository but a dynamic and interactive system that encourages students to engage with the wealth of knowledge available at their fingertips.

By leveraging this platform, students can gain deeper insights into various subjects, understand the practical applications of theoretical concepts, and enhance their problem-solving skills.

It enables students to see the progression of ideas, methodologies, and technologies over time, helping them to build on the work of their predecessors and contribute to a growing body of academic and practical knowledge. This collaborative environment promotes innovation and creativity, encouraging students to take on more challenging projects with confidence.

The SPMS also aims to bridge the gap between current students and alumni, creating opportunities for mentorship and professional networking. This interaction not only enriches the students' academic journey but also helps them to prepare for their future careers by understanding the real-world applications of their studies.

1.2 PROBLEM DEFINITION:

Develop an application that maintains and effectively tracks the activity of the Batch, Student Project, Group, Mentor of the project to store or collect all the databases of Mini-projects and Major Projects of the students.

1.3 OBJECTIVE OF THE PROBLEM:

- Facilitate Knowledge Sharing: Create a centralized repository of past projects for students to explore and learn from. Enable access to diverse project examples to inspire current students.
- Support Academic Success: Provide a dynamic and interactive platform for managing and accessing project information efficiently. Help students gain deeper insights into various subjects and understand the practical applications of theoretical concepts.
- Promote Continuous Learning and Improvement: Enable students to see the progression of ideas, methodologies, and technologies over time. Encourage students to take on more challenging projects with confidence by building on previous work.
- Foster Innovation and Creativity: Create an environment that promotes innovation and creativity through the sharing of knowledge and experiences. Encourage students to contribute to a growing body of academic and practical knowledge.
- Prepare Students for Future Careers: Provide opportunities for alumni to offer guidance and feedback on current projects. Help students understand real-world applications of their studies, preparing them for future careers

CHAPTER 2

SYSTEM ANALYSIS

2.1 EXISTING SYSTEM:

- **Limited Access to Project Details:**

  Currently, students and faculty members can only access project details by physically visiting the library. This restricts access to information and creates a dependency on library hours, limiting the flexibility of when and how users can view project details.

- **Hard Copy Format:**

  Most project reports and documents are stored in hard copy format. This not only poses challenges in terms of physical storage and preservation but also makes it difficult to quickly browse through or share the documents. Hard copies are prone to wear and tear over time, and there is always a risk of loss or damage.

- **Difficulty in Finding Projects by Specific Domain:**

  In the current system, projects are not systematically categorized by specific domains or fields of study. This lack of organization makes it cumbersome for students to locate projects that are relevant to their particular area of interest or research. They often have to sift through numerous unrelated projects to find what they need.

- **Inefficient Search Functionality:**

  The current system does not support an efficient search mechanism. There is no digital database or indexing system that allows users to search for projects based on specific criteria such as title, domain, or keywords. As a result, finding specific projects can be a time-consuming and frustrating process, often requiring manual searches through numerous physical documents.

2.2 PROPOSED SYSTEM:

- **User Authentication and Authorization:**

  Secure Login: Implement a secure login system to ensure that only authorized users can access the platform. This could include multi-factor authentication (MFA) to enhance security.

- **Project Management:**

  Centralized Repository: A centralized digital repository where all project details are stored. This repository will be searchable and organized by various criteria such as title, domain, author, and date.

- **Collaboration and Communication:**

  Real-Time Messaging: A messaging system for real-time communication between project team members and faculty advisors.

- **Easy Access:**

  User-Friendly Interface: Design an intuitive and user-friendly interface that makes it easy for users to navigate the platform and find the information they need.

  Search Functionality: Implement advanced search features that allow users to quickly locate projects by keywords, titles, domains, and other criteria.

- **Report Management:**

  Storage of Report Files: The system will store all project report files in an organized manner, allowing for easy retrieval and management.

- **Availability:**

  Backup and Recovery: Implement regular data backup and disaster recovery procedures to ensure that project data is never lost and can be quickly restored in case of an issue.

2.3 SYSTEM REQUIREMENT SPECIFICATION

2.3.1 FUNCTIONAL REQUIREMENTS:

- **User Authentication and Authorization:** Implement secure login for teachers.
  Role-based access control: Teachers can view and manage projects efficiently.

- **Project Management:** Allow teachers to categorize projects by domain. Enable tagging of projects with relevant keywords for easier searching.

- **Report Management:** Store all project report files in an organized manner, ensuring they are easily accessible. Implement version control for project reports, allowing teachers to update reports without losing previous versions.

2.3.1.1 SOFTWARE REQUIREMENT:

- Operating System: Any modern operating system (Windows macOS, Linux)
- Web Browser: Latest versions of Google Chrome, Mozilla Firefox, Safari, or Microsoft Edge
- Applications: Visual Studio Code, Notepad, XAMPP Control Panel App

2.3.1.2 HARDWARE REQUIREMENT:

- Processor: Intel Core Duo 2.0 GHz or higher.
- RAM: Minimum 512 MB or Greater.
- Hard disk: 20 GB (Free Space).

2.4 NON-FUNCTIONAL REQUIREMENTS:

- **Performance:**

  Handle multiple concurrent users without performance issues.

  Page load times ≤ 3 seconds.

- **Scalability:**

  Support growing numbers of users and projects.

  Scalable in terms of users and data storage.

- **Security:**

  Strong encryption for data transmission and storage.

  Secure login and protection against common threats.

- **Usability:**

  Intuitive and user-friendly interface.

  Accessible to users with disabilities.

- **Reliability:**

  Uptime of at least 99.9%.

  Robust error handling and data integrity.

- **Maintainability:**

  Modular design for easy maintenance and updates.

  Well-documented code

CHAPTER 3

SYSTEM DESIGN

3.1 ER DIAGRAM:

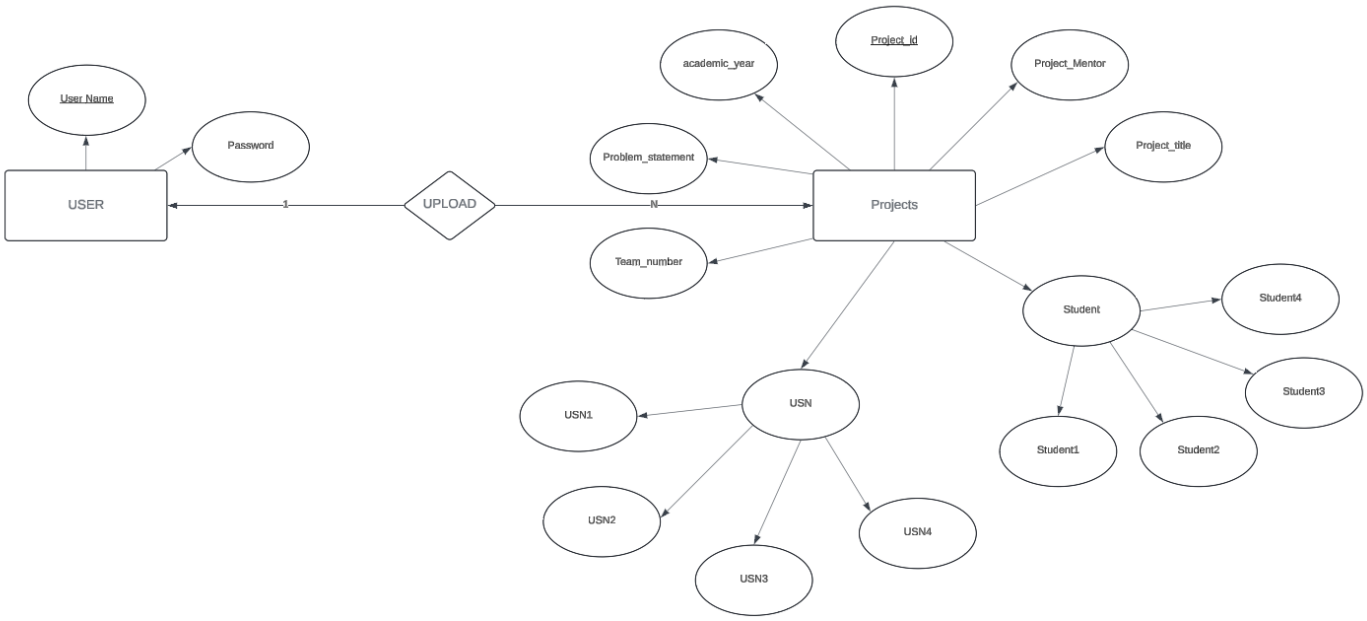


Figure: 3.1 ER Diagram

3.2 DATAFLOW DIAGRAM:

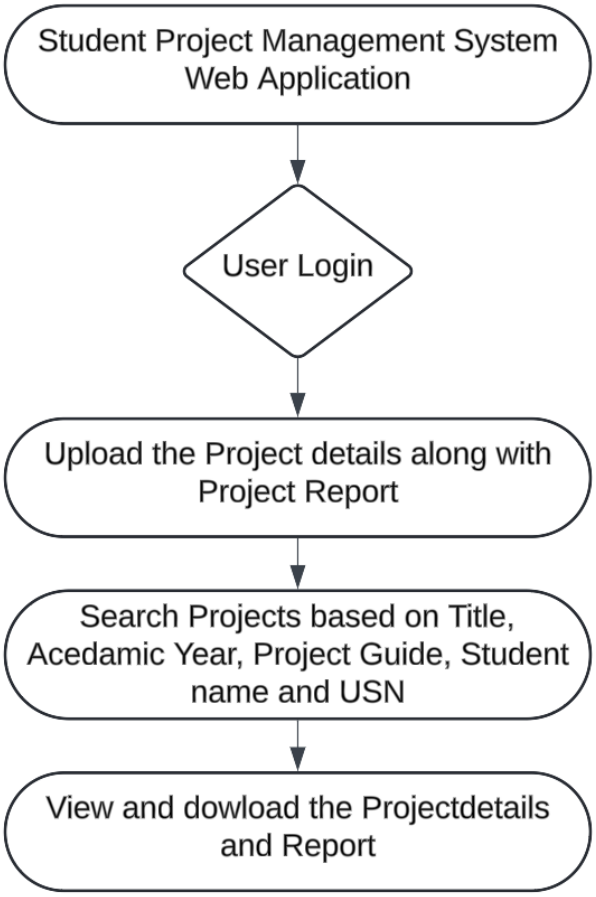


Figure: 3.2 Dataflow Diagram

CHAPTER 4

IMPLEMENTATION

4.1 IMPLEMENTING A PROJECT MANAGEMENT SYSTEM INVOLVES SEVERAL KEY STEPS:

1. **Define Objectives and Scope:**

   Clearly outline the goals of the project management system, including essential features like task tracking, resource allocation, time management, and reporting.

2. **Choose a Methodology:**

   Select a project management methodology that suits your organization's needs, such as Agile, Scrum, Waterfall, or Kanban.

3. **Select Tools and Software**:

   Choose the appropriate tools and software that support the chosen methodology and meet the project requirements. Popular options include Trello, Asana, Jira, and Microsoft Project.

4. **Develop a Project Plan:**

   Create a detailed project plan that includes timelines, milestones, task assignments, and resource allocation. This plan should be flexible enough to adapt to changes.

5. **Set Up the System:**

   Configure the project management software to match the project's needs. This involves creating project boards, setting up workflows, and defining user roles and permissions.

6. **Train the Team:**

   Ensure all team members are trained on the new system and understand how to use the tools effectively. Provide documentation and ongoing support.

7. **Monitor Progress:**

   Regularly track the project's progress using the system, updating tasks, tracking time, and adjusting resources as needed. Use the system's reporting features to generate insights and identify any issues.

8. **Communicate:**

   Maintain clear and open communication among team members, stakeholders, and management. Use the project management system's communication features to facilitate this.

9. **Evaluate and Improve:**

   After project completion, evaluate the system's effectiveness and gather feedback from the team. Identify areas for improvement and update processes and tools accordingly.

10. **Scale and Adapt:**

    As your organization grows, continue to scale and adapt the project management system to handle larger projects and more complex requirements. Keep up with new technologies and best practices to maintain efficiency and effectiveness.

CHAPTER 5

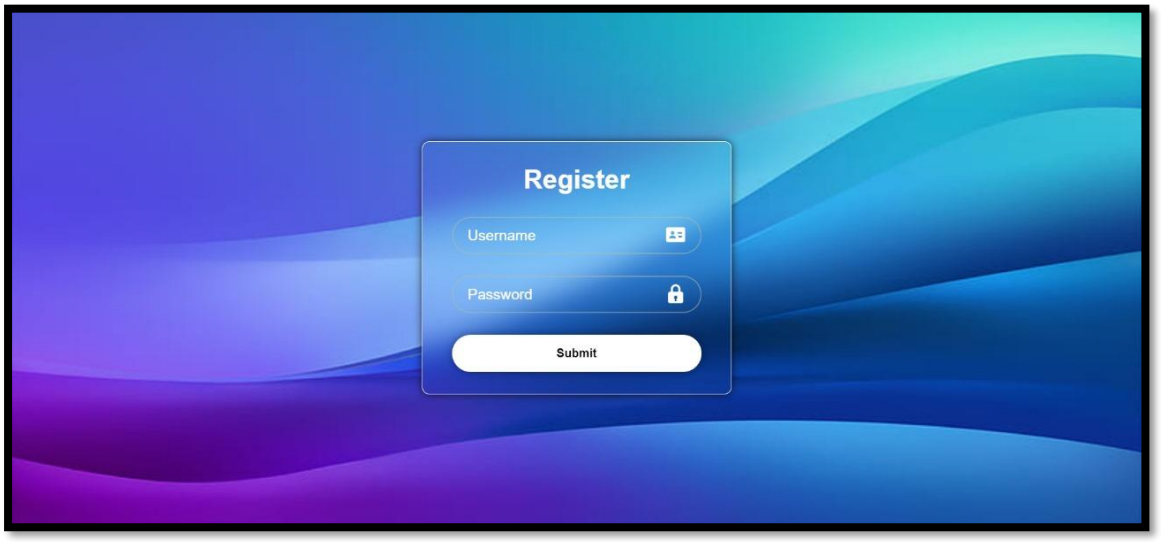
TESTING

Test ID	Test Case	Expected Result	Result
T 01	Enter valid details and click Submit	Opens dashboard	Pass
T 02	Enter invalid details and click Submit	Error!	Pass
T 03	Enter valid details in Project details and click Submit	Project added successful	Pass
T 04	Enter invalid details in Project details and click Submit	Error! Enter valid details	Pass
T 05	Enter valid details in search bar	Finds particular project and details	Pass
T 06	Enter invalid details in search bar	Error! No project exists.	Pass

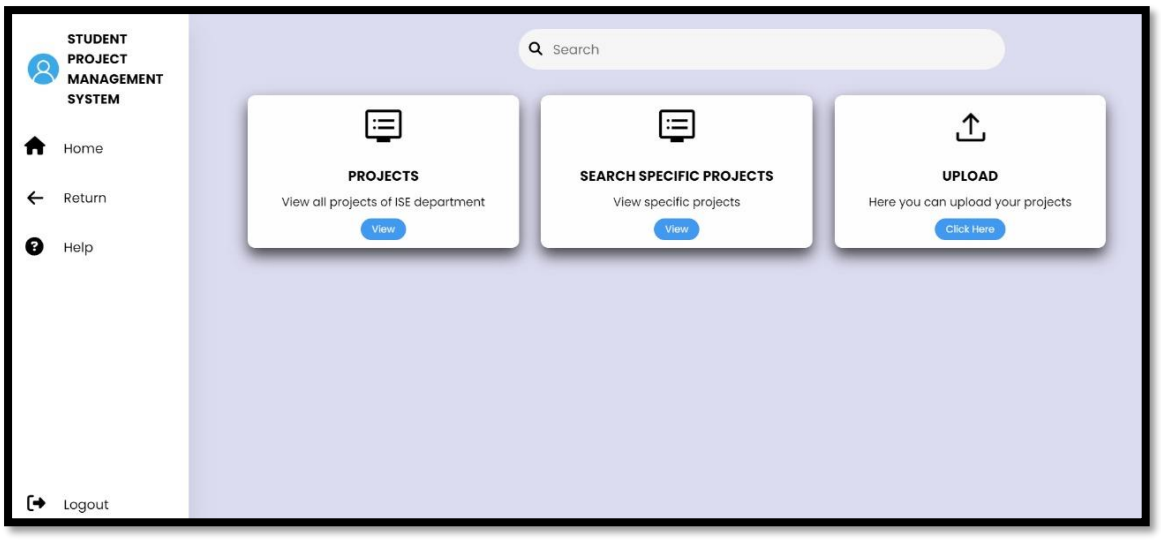
CHAPTER 6

USER MANUAL

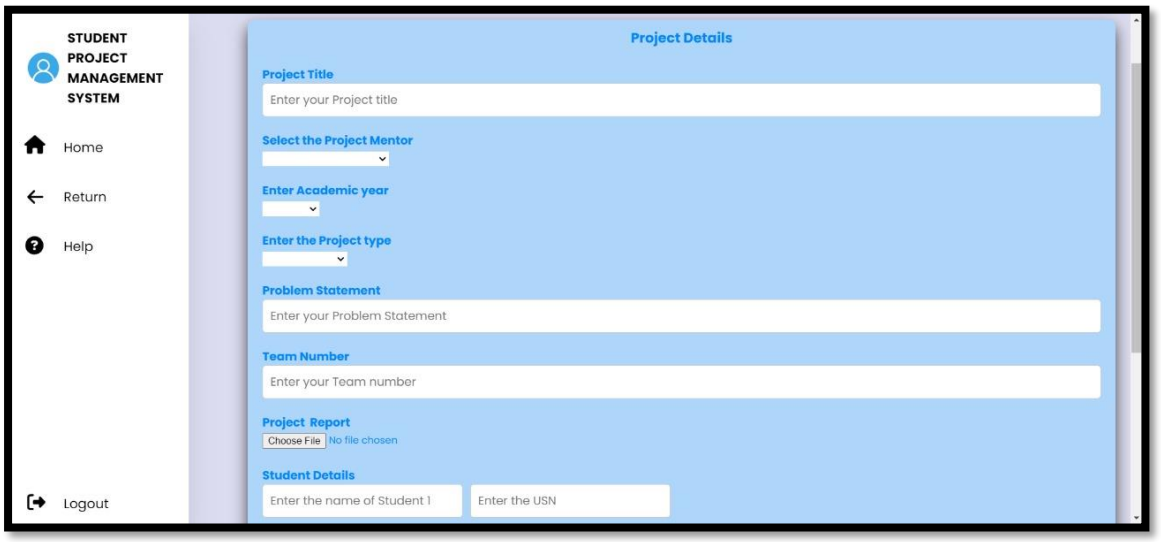
6.1 SNAPSHOTS OF THE USER INTERFACES



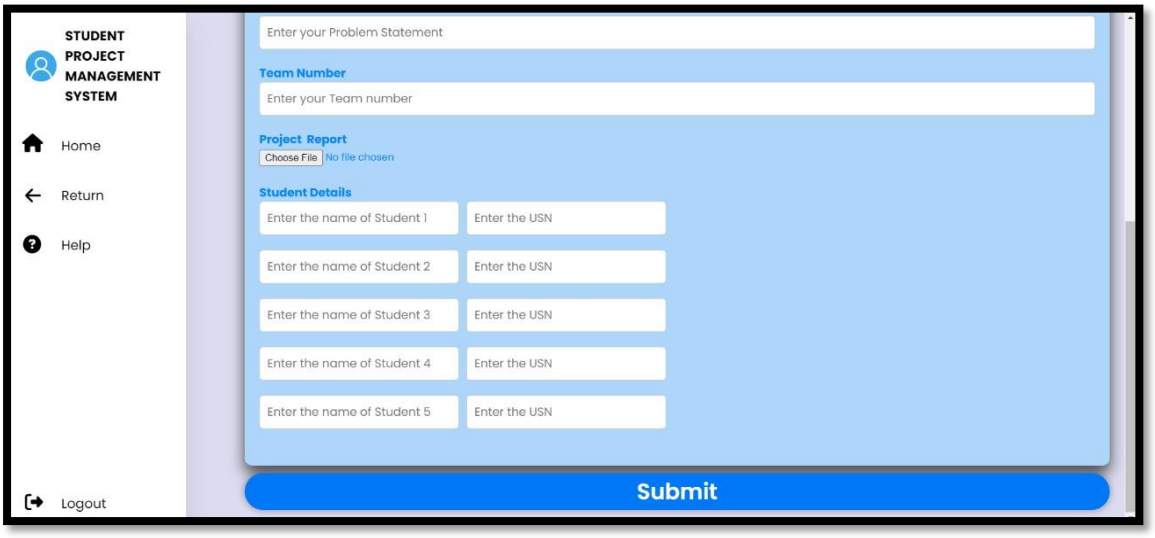
Snapshot 1 - Login page



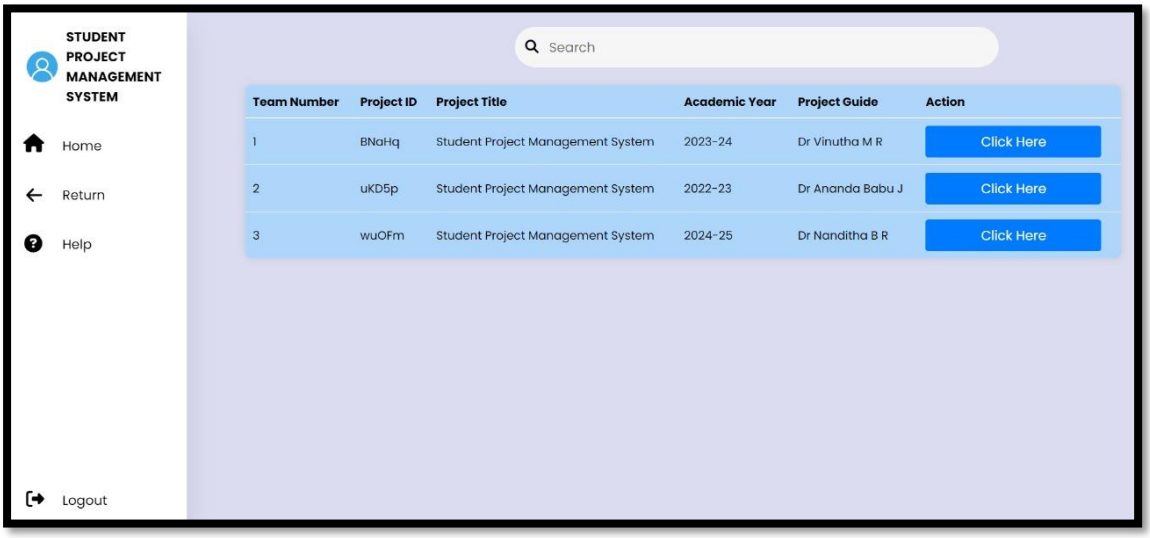
Snapshot 2 - Dashboard



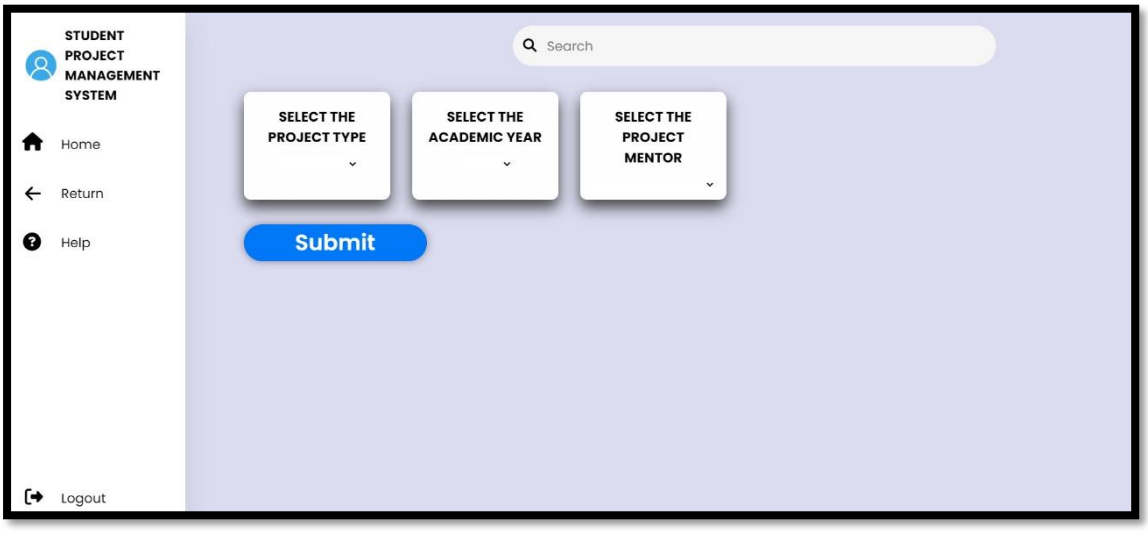
Snapshot 3 – (a) Project details submission page



Snapshot 4 – (b) Project details submission page



Snapshot 5 – Projects Table



Snapshot 6 – Project Details Submission

CHAPTER 7

CONCLUSION

In conclusion, project tracking website serves as an invaluable resource for fostering collaboration, innovation, and knowledge sharing among contributors. Its user-friendly interface, comprehensive categorization, and robust search functionality enable seamless access to a wide array of projects across diverse domains. It’s role in facilitating the exchange of ideas, encouraging learning, and promoting collective problem-solving cannot be overstated. Moving forward, continual enhancements to the platform's features, coupled with an emphasis on community engagement and feedback integration, will further solidify its position as a cornerstone for individuals and organizations seeking to explore, contribute, and benefit from a wealth of innovative projects.

CHAPTER 8

REFERENCES

- Kerzner, H. (2017). *Project Management: A Systems Approach to Planning, Scheduling, and Controlling*. Wiley.
- Mir, F. A., & Pinnington, A. H. (2014). "Exploring the value of project management: Linking project management performance and project success." *International Journal of Project Management*, 32(2), 202-217.
- PMI. (2017). *Success Rates Rise: Transforming the High Cost of Low Performance*. Project Management Institute, Pulse of the Profession.
- Gemino, A., Reich, B. H., & Sauer, C. (2015). "Plans versus people: Comparing knowledge management approaches in IT-enabled business projects." *International Journal of Project Management*, 33(2), 299-310.
- Serrador, P., & Pinto, J. K. (2015). "Does Agile work?—A quantitative analysis of agile project success." *International Journal of Project Management*, 33(5), 1040-1051.
- Ika, L. A. (2009). "Project success as a topic in project management journals." *Project Management Journal*, 40(4), 6-19.
- Müller, R., & Jugdev, K. (2012). "Critical success factors in projects: Pinto, Slevin, and Prescott – the elucidation of project success." *International Journal of Managing Projects in Business*, 5(4), 757-775.
- Geraldi, J. G., Maylor, H., & Williams, T. (2011). "Now, let's make it really complex (complicated): A systematic review of the complexities of projects." *International Journal of Operations & Production Management*, 31(9), 966-990.
- Baccarini, D. (1999). "The logical framework method for defining project success." *Project Management Journal*, 30(4), 25-32.
- Zwikael, O., & Smyrk, J. (2012). *Project Management for the Creation of Organisational Value*. Springer.