

PROJECT REVIEW AND EVALUATION SYSTEM

*1 Dr. S Deepika,
ASSISTANT PROFESSOR, DEPARTMENT OF CSE,
SREYAS INSTITUTE OF ENGINEERING AND TECHNOLOGY, TELANGANA, INDIA,
Mail id : deepikareddylnr@gmail.com*

*2 Chikudu Arvind,
DEPARTMENT OF CSE,
SREYAS INSTITUTE OF ENGINEERING AND TECHNOLOGY, TELANGANA, INDIA,
Mail id : chikuduarvind@gmail.com*

*3 Konamoni Hrithikesh,
DEPARTMENT OF CSE,
SREYAS INSTITUTE OF ENGINEERING AND TECHNOLOGY, TELANGANA, INDIA,
Mail id : chinnukonamoni007@gmail.com*

*4 Byagari Siddu,
DEPARTMENT OF CSE,
SREYAS INSTITUTE OF ENGINEERING AND TECHNOLOGY, TELANGANA, INDIA,
Mail id : byagarisidharth50@gmail.com*

*5 Cheedalla Gowtham,
DEPARTMENT OF CSE,
SREYAS INSTITUTE OF ENGINEERING AND TECHNOLOGY, TELANGANA, INDIA,
Mail id : goutham007nani@gmail.com*

Bandlaguda, Beside Indu Aranya, Nagole, Hyderabad-500068, Ranga Reddy Dist.

ABSTRACT

Higher education Due to the lack of an automated system, many educational institutions find it difficult to handle projects of any size. College officials and staff members often keep all student project reports and supplementary materials in various libraries. Because nothing can be guaranteed, it is essential that all online transactions go off without a hitch. Offline activities cannot be relied upon either. We have established a process for project approval in response to this practical issue. Students, faculty, and department chairmen all have their own unique login and registration processes inside this system. Aside from inputting data in batches, users also have the option to submit abstracts to department heads and internal standards. Project approval, rejection, and suggestion-making authority rest with the department head and internal guides. An advantage is that it may notify batches when different groups' project concepts or abstractions coincide. Then, we use NLP to show the status of each batch and verify whether the project names are same. The pupils could also get feedback. Evaluations of Projects, Reviews, and Natural Language Processing (NLP) Were Discussed.

INTRODUCTION

In every school, there is a method to evaluate and examine the projects that students and instructors work on during the year. Whether this is a senior year or one of the two years before graduation, all students are required to turn in projects. Since they require students to apply what they have learned in class to real-world circumstances, projects greatly enrich students' educational experiences. Accurately communicating the project's concept to the relevant faculty members and distributing this academic amount equitably are of the highest significance. Although there is no denying the advantages of offline submission and receiving instructor remarks in person, the convenience of an online platform for submission remains unrivaled. Even if a professor is really unavailable on the day of the deadline, some students may be dead set on submitting their abstracts to that professor. Another possible problem is that you and other students may find up in the same class, which might lead to disagreements over different viewpoints. The Project Review and Evaluation System were developed based on such practical

instances. We have established a process for project approval in response to this practical issue. Students, faculty, and department chairmen all have their own unique login and registration processes inside this system. Aside from inputting data in batches, users also have the option to submit abstracts to department heads and internal standards. Project approval, rejection, and suggestion-making authority rest with the department head and internal guides. An advantage is that it may notify batches when different groups' project concepts or abstractions coincide. Then, we use NLP to show the status of each batch and verify whether the project names are same. Students may also get comments. Everyone in the class has to set priorities for their projects. This way of assessing and evaluating is crucial for keeping projects up-to-date and evaluating their performance correctly. By taking a new approach, the Project Review and Evaluation Project hopes to help students and teachers overcome common challenges when turning in final projects for credit. At this time, the lack of an automated system in any school is the primary source of the problem. We need a fully functional web interface for the project evaluation.

Problem Statement

By taking a new approach, the Project Review and Evaluation Project hopes to help students and teachers overcome common challenges when turning in final projects for credit. At this time, the lack of an automated system in any school is the primary source of the problem. We need a fully functional web interface for the project evaluation. Even if a professor is really unavailable on the day of the deadline, some students may be dead set on submitting their abstracts to that professor. Another possible problem is that you and other students may find up in the same class, which might lead to disagreements over different viewpoints. Such hands-on knowledge was crucial in developing the Project Evaluation and Review System. Everyone in the class has to set priorities for their projects. This way of assessing and evaluating is crucial for keeping projects up-to-date and evaluating their performance correctly.

LITERATURE SURVEY

Peer-reviewed publications: Software engineering, project management, and assessment method journals are great places to start your study. Journals such as "Project Management Journal" and "International Journal of Project Management" often publish research that is pertinent to the field. Publications on review systems and project assessment are prevalent at conferences. The ICSE and the PMI Global Congress are two such instances of such conferences. The literature review component of an evaluative and review system for projects is a comprehensive analysis of previous studies and their conclusions. This shows where project evaluation is at the moment, where it falls short, and how to fix these problems so that better evaluation and review processes may be developed. Approaches such as tokenization, word embeddings, and similarity measurements may provide a solid foundation for learning about text similarity and natural language processing (NLP). Among the many applications of text similarity search are recommendation systems, plagiarism detection, and information retrieval. Get a better understanding of the relevance and practical applications. In order to evaluate text similarity algorithms, evaluation metrics are essential. A number of measures, including MAP, F1-Score, Precision, and Recall, should be well grasped. The capacity to recognize similarities in texts across languages and multilingual methods to NLP have become more important. Reading up on the topic could teach you everything about becoming bilingual. Gensim, Hugging Face Transformers, and spaCy are some of the modern NLP frameworks and technologies that may be used to build text similarity systems. Issues with real-time search, domain-specific concerns, and scalability in the face of massive datasets are among the obstacles that text similarity search must overcome. Investigate potential avenues for delving deeper into these fields. When evaluating text similarity approaches, the Sentences Involving Compositional Knowledge (SICK) dataset and the Semantic Textual Similarity (STS) dataset are excellent standards. Things with a moral character must take precedence. Take a look at studies that have looked at ways to make NLP models more fair and objective. Lastly, research demonstrating the real-world applications of text similarity search in domains such as education and business may provide valuable insights. While you complete out this survey, keep track of the articles you've read in a categorized list, take notes, and look for parallels, discrepancies, and gaps in the current study.

EXISTING SYSTEM

College officials and staff members often keep all student project reports and supplementary materials in various libraries. Things almost never work out the way you want them to, and it's also impossible to know what the future holds. Students may plan to submit their abstracts to a certain professor by a given date, but that professor might not be accessible on that day. Because we can't predict what the future holds and because we can't guarantee perfect functioning in a technologically deficient environment, library fires and short circuits may happen at any second. There can be times when students can't reach their instructors. Another possible problem is that you and other students may find up in the same class, which might lead to disagreements over different viewpoints. Several of the groups' initiatives would propose conceptually identical concepts or abstractions. Whether this is a senior year or one of the two years before graduation, all students are required to turn in projects. Since they require students to apply what they have learned in class to real-world circumstances, projects greatly enrich students' educational experiences. Accurately communicating the project's concept to the relevant faculty members and distributing this academic amount equitably are of the highest significance. Although there is no denying the advantages of offline submission and receiving instructor remarks in person, the convenience of an online platform for submission remains unrivaled.

PROPOSED SYSTEM

In light of this real-world concern, we have put in place a procedure for project approval. This system has separate login and registration procedures for students, professors, and department chairs. The HTML and Flask frameworks were used to construct the site. To improve the user experience, CSS styles were used. Users may submit abstracts to department leaders and internal standards in addition to batch data entry. Department heads and internal guides have the last say on whether a project is approved or rejected and may also provide suggestions. Batch notifications may be sent out when there is congruence in the project ideas or abstractions of multiple groups. This is a benefit. Next, we check whether the project names are same and utilize natural language processing to display the status of each batch. Students could also get feedback.

Advantages:

- Time is saved as compared to a manual method. Excellent data management is the result of its dependability.
- Everyone in the cohort will be informed if they submit project ideas or abstracts.
- Requires less effort and risk than manual processes.

SYSTEM DESIGN

IMPORTANCE OF DESIGN

The design phase's overarching goal is to resolve the issue identified in the requirements document. By describing the program's structure, interactions, objects, and operations in detail, code quality assurance ensures that the final product satisfies user expectations. It will help you reach the pinnacle of abstraction while simultaneously improving your understanding of and ability to fulfill the criteria. Less duplication means greater potential for reuse. Changing one's perspective from one that is problem-oriented to one that is solution-focused begins with this. To reiterate, design leads us to ways that meet requirements by beginning with what is essential. Perhaps the most important aspect of software quality is the system's architecture, as it greatly affects the testing and maintenance phases. At the end of this stage, you will get the design document. This document is then used as a solution guide throughout phases such as testing, implementation, and maintenance. System design and detailed design are the two main stages of any design process. System design, also known as top-level design, seeks to define the system's components, their optimal organization, and their interdependencies in order to achieve performance goals. The Detailed Design phase is when the rationale for the system's module requirements is settled upon. It is common practice at this stage to describe data at a high level in a language separate from the target language that will be used to develop the program. Detailed design places an emphasis on specifying the logic for every module, as opposed to system design that is concerned with recognizing the modules. By integrating requirements into the design process, system designers connect requirements elicitation and analysis with the final result.

FUNCTIONAL REQUIREMENTS

- **IDE** : Vs code or Pycharm
- **Programming Language** : Python 3.6 or more
- **Tools and libraries** : Flask ,SQLAlchemy.
- **RAM** : 5GB or Higher
- **Processor** : Intel i3 or More
- **Hard drive** : Minimum 20 GB

IMPLEMENTATION

Design of Modules Students may set up a team account with a suitable username and password using the "Student Registration" feature. After they've signed up, they'll have access to features including project tracking, academic and departmental comments, and abstract submission. In addition to Flask, HTML and CSS are required for this module to run [5]. Databases are built and administered using MySQL Alchemy to hold user information. Rules and Instructions for Utilizing the HOD Portal: The enrollment process for the guide is identical to that of the student module. All submitted abstracts will be accessible to faculty members after they have acquired an account. The project abstract may also be viewed offline since users can download it by clicking on it. They need to review the abstract before updating the status in the student team's account. You can choose between accepting and declining. Assuming it satisfies our requirements, we will mark the project abstract as approved. Teachers will be able to share their thoughts with the class in a specific spot. The functionality of this component is dependent on Flask, HTML, and CSS. Databases are built and administered using MySQL Alchemy to record user information.

TESTING

IMPORTANCE

Software defects can only be discovered via testing. At any given time during the coding process, it is the single most critical indicator of worker quality. It is possible to verify that software performs as expected by subjecting it to a battery of test cases and analyzing the outcomes. The requirements, designs, and program codes are reviewed for a last time during software testing. The increasing importance of software as a system component and the financial consequences of software failure motivate our systematic and intentional testing approach. The goal of software testing is to identify and fix errors in a program by repeatedly executing it. The testing process for software and other created items may be as challenging as developing the goods themselves.

TYPES OF TESTING

To guarantee that the finished result is bug-free, the software development process utilizes several levels of testing techniques.

Parts Checking

As code, each module is tested independently. The creator's parameters are the only constraints. For each module, you have the following testing options.

Contrast-Based Testing

This approach generates a set of test cases that, when used as input conditions, run the program through all of its functional requirements. Problems in the following areas have been identified during testing:

Faulty or absent features

- Difficulties in data access or organization
- Mistakes in performance
- Errors during start-up and shut-down

RESULTS

THE FOLLOWING ARE THE RESULTS OBTAINED AFTER IMPLEMENTATION – UI:

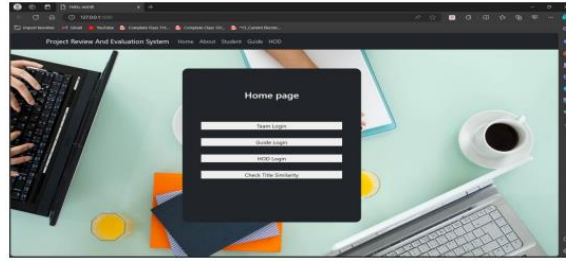


Fig 1 Home Page.

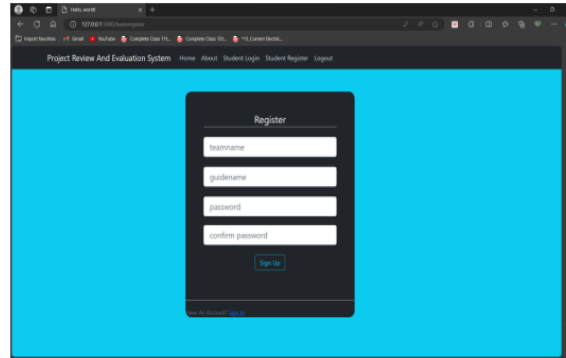


Fig 2 Team Registration page

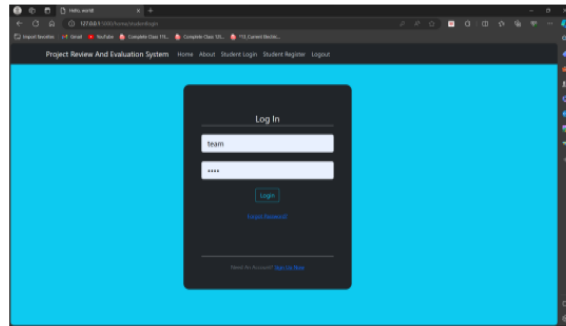


Fig 3 Team login page

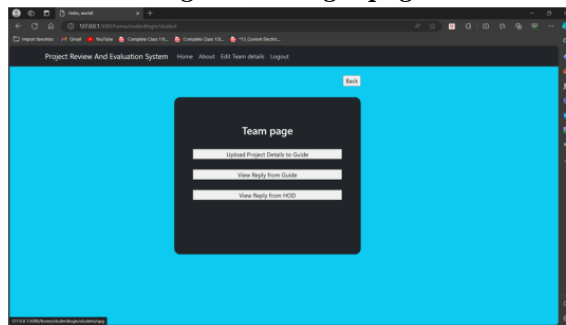


Fig.4 Team page

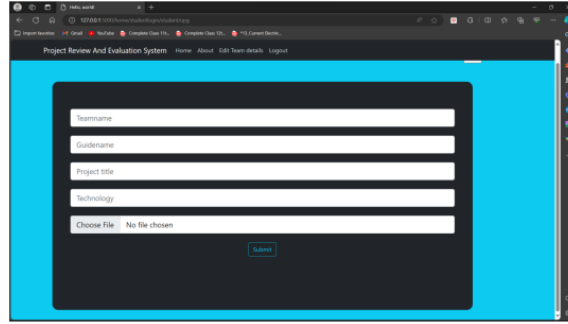


Fig.5 Project Submission page

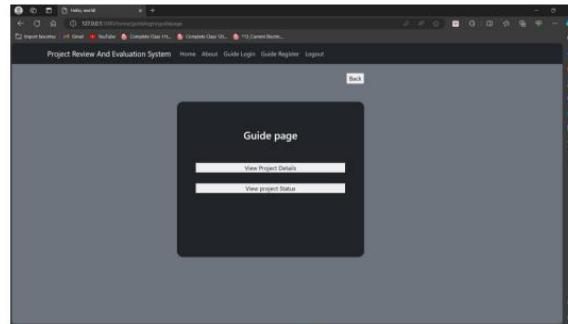


Fig.6 Guide Page

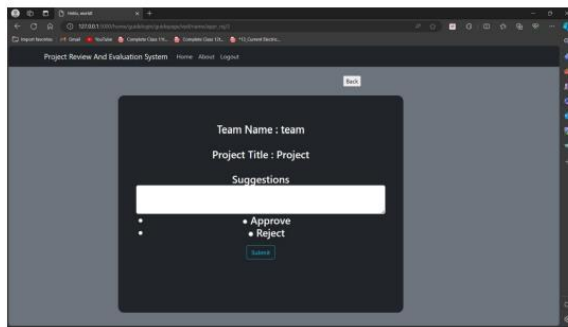


Fig.7 Guide Project Status Page

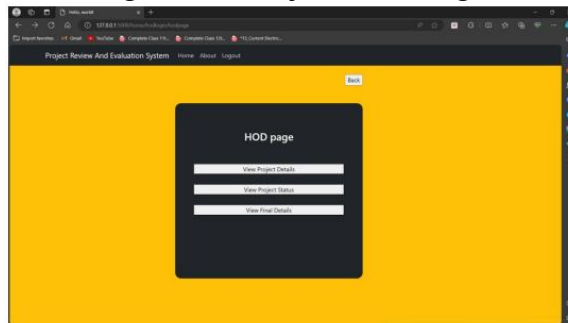
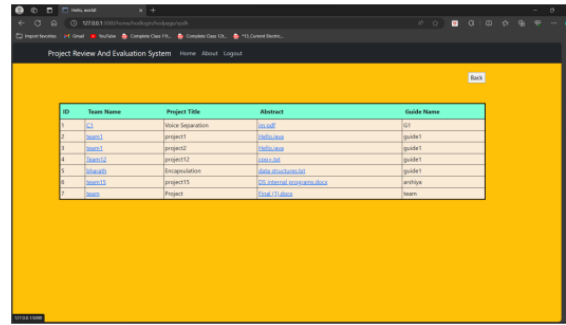


Fig.8 HOD Page



The screenshot shows a web browser displaying the 'Project Review And Evaluation System'. The page has a yellow background and a table with the following data:

ID	Team Name	Project Title	Abstract	Guide Name
1	Team1	Project1	Abstract1	guide1
2	Team1	Project2	Abstract2	guide1
3	Team1	Project3	Abstract3	guide1
4	Team1	Project4	Abstract4	guide1
5	Team1	Project5	Abstract5	guide1
6	Team1	Project6	Abstract6	guide1
7	Team1	Project7	Abstract7	guide1
8	Team1	Project8	Abstract8	guide1
9	Team1	Project9	Abstract9	guide1
10	Team1	Project10	Abstract10	guide1

Fig.9 HOD Project Status Page

APPLICATIONS IN REAL LIFE

How the Project review and Evaluation System used in day to day life?

Management of projects, quality of decisions, and overall organizational performance may all be greatly improved with the help of project review and assessment tools. Some of the most important benefits of using these systems are as follows:

1. **Data-Driven Decision Making:**

Organizations may now make choices based on facts and numbers rather than gut feelings or personal opinions thanks to these platforms' quantitative data and insights.

2. **Improved Accountability:**

By documenting and tracing progress and results, project review and evaluation procedures foster an atmosphere that is both transparent and accountable.

3. **Enhanced Performance Monitoring:**

It is possible to spot problems early and implement fixes quickly with real-time tracking and monitoring of project progress.

4. **Efficiency and Productivity:**

These solutions may increase project management efficiency and decrease administrative costs by improving data collecting and analysis procedures.

5. **Risk Mitigation:**

In order to lessen the chances of project failure, businesses may use risk assessment and management elements to assist them identify and mitigate possible risks.

ADVANTAGES OF PROJECT REVIEW AND EVALUATION SYSTEM

Improved Accountability:

By keeping track of the project's development and final product, these systems make it easy to see who is accountable for what and how things turned out.

Enhanced Performance Monitoring:

With the ability to manage and monitor projects in real-time, businesses can quickly detect problems and implement solutions, leading to better project results.

Efficiency and Productivity:

Reducing administrative overhead by streamlining data collecting and analysis procedures improves project management and decision-making efficiency.

Risk Mitigation:

There will be fewer project failures and unforeseen problems if review processes are in place to assist find and eliminate such risks.

Cost Control:

In order to maximize the use of available resources, these tools let businesses optimize their cost-benefit analyses and project budget management.

DISADVANTAGES OF SUMMARY GENERATION WEB APP

There are many benefits to using a system for reviewing and evaluating projects, but there are also some drawbacks and difficulties. When adopting or creating such systems to address possible problems, it is

crucial to think about these downsides. Project review and assessment processes often include the following drawbacks:

Cost and Resource Intensive:

A system for reviewing and evaluating projects may be costly to implement and maintain. Development of software, hardware, training, and continuing support all contribute to the total cost.

Complexity:

Users and administrators may need substantial training due to the complexity of these systems during setup and use.

Data Accuracy and Quality:

It is crucial that the data entered be accurate and of high quality. Decisions and assessments based on inaccurate or inadequate facts are prone to bias.

Subjectivity:

There is a high degree of subjectivity in project assessment, and many stakeholders may have differing views on what constitutes a successful or unsuccessful project.

Resistance to Change:

When new systems or procedures interfere with existing routines and workflows, employees may be resistant to adopting them.

KEY CONCEPTS

The essential ideas and principles that support the development, execution, and efficient use of a system for project review and assessment are known as key concepts in this context. These ideas are useful for grasping the system's core features and its goals. Take into account the following important ideas:

Project Evaluation:

When a project's performance, results, and effect are systematically assessed, it is known as a project evaluation. Evaluation is the process of finding out if a project was successful in meeting its objectives and producing the expected results.

Key Performance Indicators (KPIs):

The key performance indicators (KPIs) of a project are its specialized measurements. They provide a measurable approach to assess progress towards goals.

Data Analytics:

The goal of data analytics is to aid in decision-making by analyzing project data using statistical and computational methods to find patterns and insights.

Risk Management:

To ensure a project's success, risk managers seek for, evaluate, and deal with any threats to the project's completion. Minimizing the possibility of unfavorable results is its primary objective.

Cost-Benefit Analysis:

A cost-benefit analysis compares the expenses of a project with its anticipated benefits in order to draw conclusions about the project's financial impact. It is useful for figuring out if a project can be funded.

CONCLUSION

Lastly, we have been unable to determine the efficacy of our efforts due to the absence of a project evaluation and review framework. We achieved data-driven decision-making, transparent performance assessment, and efficient project monitoring by staying dedicated to the goals throughout the implementation process. Problems did arise, however, since we had to deal with constraints in time and money as well as other, unanticipated factors. Nonetheless, we honed our project management techniques and gained confidence in handling complicated operational scenarios as a result of the lessons and insights offered by these obstacles. In particular, the system's promotion of an accountability-focused and efficiency-focused culture has allowed us to pinpoint problem areas and maximize our resources for future initiatives. When we plan and carry out future projects, we must ensure that we apply the lessons we learn from this incident. Our organizational skills and development mindset may be enhanced by fine-tuning our present setup and fixing any problems. This mechanism for evaluating and assessing projects

is a reality because of everyone's hard work. Much praise is due to the group and the stakeholder community.

FUTURE SCOPE

Reviewing and analyzing projects and processing authorization requests via academics will no longer be done manually. The system will take care of all of that. [9] If students keep their records organized, the faculty will have an easier time assessing and documenting their projects. It could be useful for groups that include a lot of students from various majors [10]. It takes less time than a manual process, thus it's quicker. It allows proper data management and is also a reliable instrument. Maybe in the future we may include a mailing module that students can use to send the HOD and guides files attached to emails. Users may be presented with the option to access, compose, or reply to email messages. Individual alerts or notification modules may be added; when shown, they will have an icon that, when clicked, will take the user directly to the notice's pertinent information.

REFERENCE

1. *Project Management Institute (PMI): Access PMI's standards and guidelines, such as the PMBOK (Project Management Body of Knowledge) Guide, for comprehensive insights into project management practices and evaluation frameworks.*
2. *International Journal of Project Management: Explore research articles and case studies published in this journal, which provide in-depth analyses of various project management methodologies, tools, and evaluation techniques.*
3. *"Project Management Metrics, KPIs, and Dashboards: A Guide to Measuring and Monitoring Project Performance" by Harold Kerzner: This book offers a comprehensive overview of key performance indicators (KPIs) and metrics used in project management, providing practical guidance on evaluating project performance.*
4. *"Effective Project Management: Traditional, Agile, Extreme" by Robert K. Wysocki: This book provides a comprehensive understanding of project management methodologies, including traditional and agile approaches, and offers insights into project evaluation and assessment techniques.*
5. https://www.academia.edu/28590094/An_Integrated_Project