Project Review Management System

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Abstract - *Project reviews play a crucial role in effective project management by facilitating progress evaluation, identifying improvement opportunities, and ensuring alignment with project objectives. However, conducting project reviews can be a challenging and time-consuming process, requiring coordination among multiple stakeholders and data sources. To tackle these challenges, we propose the Project Review Management System (PRMS), a web-based platform designed to streamline the project review process, automate data collection and analysis, and enable real-time reporting and collaboration. Our system employs cutting-edge technology and robust features to simplify the project review process and provide users with an intuitive interface for easy navigation.*

This paper outlines the design, development, and evaluation of the PRMS, including its key features and functionalities. We also discuss the potential impact of the system on project management and provide evidence-based recommendations for its implementation. The PRMS has the potential to revolutionize the project review process, improving efficiency, reducing errors, and enhancing collaboration among stakeholders. By automating data collection and analysis, our system reduces the burden on project managers, enabling them to focus on critical decision-making and action planning.

1. INTRODUCTION

Project reviews play a vital role in project management, as they enable project managers to evaluate the progress made towards achieving project goals, identify any issues, and take corrective actions to ensure project success. However, the conventional approach to conducting project reviews can be tedious, time-consuming, and error-prone, involving multiple stakeholders and documentation reviews.

To overcome these challenges, we have developed the Project Review Management System (PRMS), a cutting-edge web-based platform that streamlines the project review process, automates data collection and analysis,

and facilitates real-time reporting and collaboration. The PRMS offers a user-friendly interface that simplifies the review process, making it faster and more efficient, and enables project managers and stakeholders to get a comprehensive view of project performance.

The PRMS offers a range of advanced features, including a centralized database that stores project-related data, automated data collection and analysis tools, customizable dashboards and reports, and collaboration tools that enable stakeholders to work together in real time. These features enable project managers to monitor project progress and performance in real-time, identify issues as they arise, and take corrective actions promptly to ensure project success.

The PRMS also offers a range of benefits to project managers and stakeholders, including increased transparency and accountability, reduced costs and delays, improved decision-making, and enhanced communication and collaboration. With the PRMS, project managers can ensure that their projects are on track, identify any issues early on, and take corrective actions promptly to ensure project success.

2. LITERATURE SURVEY

2.1 Existing system

[1]The user's information needs can be met through a search query, which serves as an input to a search box. The query is then processed by the search system, which retrieves relevant information based on the query's content.

[2]To design and develop a comprehensive system that encompasses all aspects of project review in a university setting. This system effectively addresses challenges related to declaration review, and process management of research projects, and enhances project management efficiency, thereby reducing the workload of project management personnel.

[3]We aim to develop and deploy a web-based project management software solution with accompanying mobile applications, featuring a robust integration with Geographic Information Systems (GIS) technology for enhanced functionality and effectiveness.

[4]An evaluation of current software projects reveals that researchers are inclined to propose frameworks for application development and strategies for incorporating these frameworks into project workflows, with the aim of advancing this field.

2.2 Drawbacks

[1]This model was experiencing issues with retrieval due to the presence of several bugs. These bugs were impacting the accuracy and completeness of search results by causing errors in the model's algorithms, data structures, or input data. As a result, the retrieval process was unable to function correctly and was returning incomplete, inaccurate, or irrelevant information.

[2]The papers and documents that were uploaded were not accessible to other students due to an access control limitation. The system may have been designed to restrict access to only the user who uploaded the files or a specific group of users. As a result, other students who did not have the required access permissions were unable to view or access the uploaded papers and documents.

[3]The system lacked a resource management and time tracking feature, which would have allowed for the efficient allocation of resources and tracking of time spent on tasks. This feature could have enabled users to assign tasks to team members, track progress, and monitor the utilization of resources such as staff, equipment, and materials.

[4]To systematically identify, categorize, and evaluate the various methods and predictors used in the planning and assessment of requirements for project management.

3. PROPOSED SYSTEM

Our goal is to develop a comprehensive Review Management System that offers a user-friendly and efficient platform for students and guides to effectively manage their projects. The system will streamline the entire project management process, from the initial creation of groups and the assignment of guides to the final review and project submission.

To achieve this, the platform will enable groups to easily track their progress, hold discussions about the project, submit their work, and observe completed similar projects

for reference. Additionally, guides will be able to keep accurate records of every group's progress, communicate effectively with groups, review and evaluate projects, and manage reports with ease.

The system will leverage cutting-edge technology and robust features to ensure that all stakeholders can use the platform conveniently and securely. Through a simple and intuitive interface, users will be able to perform all necessary tasks and monitor the status of their projects in real time. Our aim is to create a dynamic and user-friendly platform that helps students and guides achieve their project management goals efficiently and effectively.

4. SYSTEM ARCHITECTURE

The proposed project review management system enables three types of users, namely project coordinators, project guides, and students, to access the website for performing different tasks. The system initiates the selection of project guides for specific domains based on faculty preference, followed by a broadcast notice by the project coordinator for project groups to submit reference research papers related to the project topic. The system requires the submission of three different reference papers from distinct domains, which are then assigned to the staff according to the domain preferences of the guides, using paper distribution algorithms.
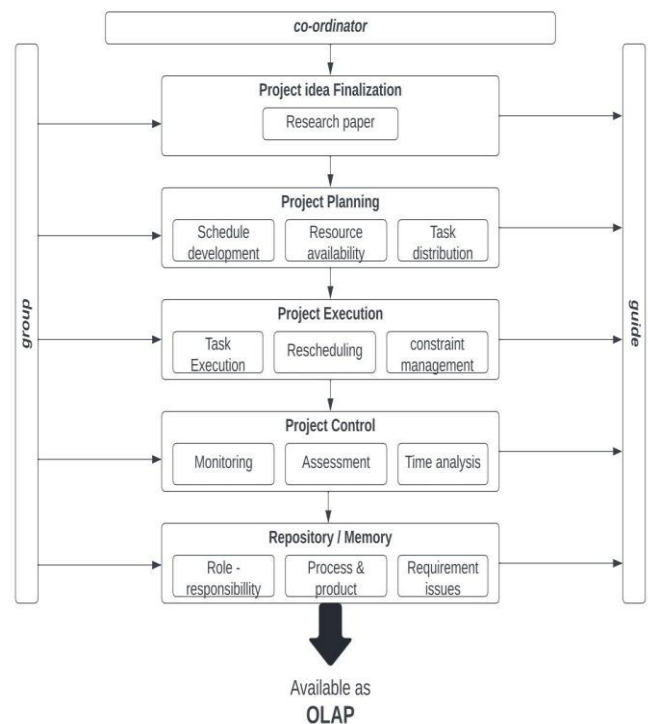

Fig: 1.1 System architecture

Once the reference papers are available, the algorithm is utilized to ensure the even distribution of groups to the guides, ensuring consistency in the number of groups assigned to each guide. After allocating the guide, the project planning phase commences, requiring a proper plan for scheduling and developing each task. The system checks for the availability of resources and estimates the development cost for the complete project. The distribution of work among group members is another crucial task to ensure proper planning, providing each member with a clear idea of the assigned work.

The project execution phase follows the project planning phase, where each member completes their assigned task within the original timeline. In case of work remains unfinished, the system reschedules the work, creating a new timeline for the project. The project controls are monitored, and reports are assessed from time to time to ensure successful project completion. The final step involves the repository and memory phase, where different roles are assigned to group members, checking all requirement issues.

The project review management system utilizes advanced algorithms and resource planning techniques, providing a seamless experience for project coordinators, project guides, and students. The system ensures efficient project execution and monitoring, enabling successful project completion within the specified timeline and cost.

5. ALGORITHM

We have designed the algorithm which will be suitable for the proposed system.

Steps:

1.   Start

2.   Int minNoOfPapers, maxNoOfPapers

3.   Input   numberOfGroup,   numberOfGuide, numberOfPapers, numberOfDomain

4.   minNoOfPapers   =   (numberOfGroup   / numberOfGuide)[(numberOfPapers)mod(numberOfDomain)]*

5.   maxNoOfPapers   =   minNoOfPapers   + numberOfDomain   -   [(numberOfPapers)mod(numberOfDomain)]

6.   numberOfPapersOfParticularDomain   = (avgOfMinMax)/(numberOfDomainOfParticularGuide)

7.   IF allocatedPapers < minNoOfPapers then enter in list1

8.   IF   minNoOfPapers   <   allocatedPapers   < maxNoOfPapers then enter in list2

9.   IF allocatedPapers = maxNoOfPapers enter in list3

10.   Repeat the above steps till list1 and list2 become empty.

6. METHODOLOGY

The process of assessing and reviewing student projects can be challenging, as it is typically done manually and can result in inconsistent records, missing records, and difficulty tracking projects. The criteria for these projects include originality of the idea, project domain clarity, and feasible solutions. To address these issues, a project management system has been developed that stores projects year-wise, allowing professors to easily search and compare them with previous projects. Students can also search and take snippets from previous projects to improve their own. This system aims to improve the management of student projects and make the process more efficient.

Project reviews are an essential part of project management, but the traditional approach can be cumbersome and time-consuming. The Project Review Management System (PRMS) has been developed to streamline the review process and automate data collection and analysis. This web-based platform enables real-time reporting and collaboration, simplifying the review process and providing project managers with a comprehensive view of project performance. The PRMS is designed to address the challenges associated with traditional project reviews, which often involve meetings, documentation reviews, and data analysis, leading to delays and inefficiencies. With the help of the PRMS, the project review process can be made more efficient and effective, improving project management and ensuring that project goals are met.

6.1 Phase -1: Orientation

The initial paper selection and domain selection processes will take place in this phase. Here, the project coordinator will oversee the papers submitted by each group, assign them to the guides for approval or rejection, and then carry out the guide allocation process.

6.2 Phase -2: Title Finalization

Groups submit project topics and abstracts, and after extensive discussion about the topics, including prior work, current needs, and future scope, a topic is chosen.

6.3 Phase -3: Literature Review / Survey

The topic and its domain are thoroughly and properly researched. This begins with a literature review, which should be done to gain a deeper understanding of the issue.

6.4 Phase -4: Problem statement submission

The problem statement is created by the group after they have a thorough understanding of the current system and its shortcomings. The issue or challenge that the project seeks to address is outlined in this problem statement. It gives a precise and succinct explanation of the issue, its history, and its importance.

6.5 Phase -5: Proposed System

A well-prepared system should be proposed after a thorough analysis of the current system. An explanation of a proposed system's goal, functionality, features, and implementation strategy could be included. The suggested system might also have a budget, a development schedule, and a testing and deployment strategy.

6.6 Phase -6: List of algorithms

The groups should decide on or prepare the algorithms needed for the project, and then list them accordingly.

6.7 Phase -7: Implementation

The project's implementation ought to get going. Both parties (groups and guides) will be able to easily track the work completed if a progress timeline is maintained for efficient work progress. Software engineering principles can be used to implement this.

6.8 Phase -8: Final Report

The groups should publish their work on paper and complete the project's implementation and testing.

7. FUTURE ASPECTS

Project managers and stakeholders will welcome the PRMS, or Project Review Management System, as it is a system created to streamline the project review process, save time and effort, and offer insightful information about project performance.

A well-managed system for project review management is what the proposed system aims to provide. By adding features like team-building, project templates, competitive events, report generation, email, and mobile integration for real-time notifications, as well as by expanding the user base, it will be further improved in the future.

8. CONCLUSION

With PRMS, Project managers can quickly identify problem areas and take corrective action thanks to the automated data collection and analysis modules, which enable real-time metrics and insights into project performance. The system's user-friendly, intuitive, and effective design, complemented by a contemporary interface, will undoubtedly be valued.

Overall, the PRMS will show itself to be a trustworthy and efficient solution for managing projects, offering the best user experience and insightful data on project performance. Any organization seeking to increase the efficiency and effectiveness of project management will find the system to be a valuable asset because of its simplicity of use, extensive reporting capabilities, and automated data collection and analysis.

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