Project Management System (PMS)

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Abstract - **Managing and controlling the final year projects of students using manual or traditional process is a very tedious job. The main aim of this project is to create an automated system for managing all the activities of projects. Project management system is a system for managing, controlling, monitoring the final year projects of students. It is a web based portal or application which is useful for students, project coordinator and project guide. Firstly all the students need to register into the system using registration form. Then registered students can login into the system using their id and password to get authenticated. When the students login to the system, then they will form the groups by their own. Similarly, project guide needs to login into the system using their id and password. PMS also allows the group of the students to provide at least three project domains and then system will automatically assign the guides to the group of students. Project coordinator is main aspect of the system which will assign different tasks to the students. Project coordinator and project guide is co-ordinate with each other. Depending upon the different parameters, the work is assigned by the coordinator and the progress chart of the group is created. For creating progress chart we are using a work breakdown structure (WBS). Depending on progress charts the marks will automatically get assigned for particular group of the students.**

Keywords - **Hashmap, Project management, Project monitoring, Project modules.**

1. INTRODUCTION

In today's world, nobody takes an initiative to look for notices which are displayed on the notice boards. Many students miss the information about some important notices and updates related to their final year projects. Also, the students are not able to keep track of their project related activities. It becomes very easy if all the details and updates of the project from guides and coordinator are readily available for the students. Managing the final year projects manually is very stressful job. But using simple web portal anyone can carry out their project related work which is the main aim of Project Management System (PMS). It provides students, Project coordinator and Project guides a simple web portal to manage and monitor the overall project activities. All the modules of the system have a unique user id and password. Then any module can login into the system using their id and password to get authenticated further. PMS allows the group of students to provide at least three project domains and then the system will automatically assign the guides to the groups of students. Project coordinator is the main module of the system which assigns various tasks to the students. Project coordinator and Project guide are interacted with each other. Depending upon the different parameters related to the work assigned by the coordinator, the progress chart of the group is created and grades will get automatically assigned for the particular group of the students. E-mail notifications are send to the groups about the important notices and updates related to their final year project.

What is project Management?

Project management is the process of planning, scheduling, resource management, requirement analysis, designing and testing to achieve project goals and objectives. Without project management it is difficult to complete projects in given time. Therefore, project management is required to remove such barriers in project development and to achieve specific goals.

2. LITERATURE SURVEY

Name	Year	Description
Xian Shannxi	**2010**	The paper has the model, which drives the entire system architecture to the brand new software growing ideological system that put forward faces to item control organization. On this paper, the complex hassle oversimplifies and abstract problem pictorially as base. It takes software venture manages process visualization and controllable as simple intention.

Roy Oberha user	**2011**	In this paper, a method is proposed that extends the goal-question-Metric technique and automates the tracking of satisfactory desires via a multi-agent system with the assist of competitive bidding agent conduct for proactive vs. cooperative vote casting for reactive measures.
Sue Newell	**2012**	In this paper, the author has defined mini-music, which makes a specialty of numerous areas of IT Enterprise and assignment control which can be a hobby to diverse lecturers and practitioners.

3. EXISTING SYSTEM

Existing system of system of project management is manual. Project coordinator or guide gives task for student manually. Student complete the work which is given by coordinator or guide and submits manually, in this system all work is done by manually so it can take more time to complete project related work. Project coordinator or guide requires remembering in mind when student completed the work so it is difficult for Project coordinator or guide which student completed the task and when. In the existing system does not help users to get right information at right time and user cannot manage project development easily to achieve the main goal.

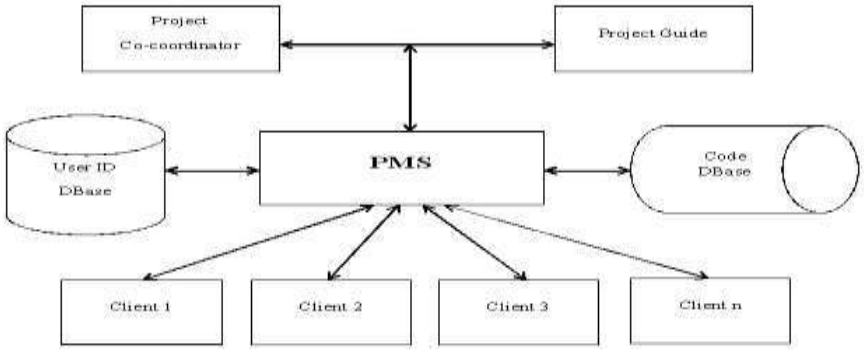
Limitations of existing system

1. It is time consuming.
2. Right information is not retrieved at right time.
3. Any updates to the data by team members or the Project coordinator or guide cannot see immediately by the rest of the team.
4. All work is done manually.

4. PROPOSED SYSTEM

In this proposed system we can implement a system which can manage project cognate all work consummated by utilized and Project coordinator or guide. Coordinator updates project cognate information, view work done by a student at which time and view progress chart of work done by student, progress chart is developed utilizing WBS ("Work Breakdown Structure"). Student retrieved the given work information updates and consummates this work at given time and submits into the project management system.

5. SYSTEM DESIGN AND CONSIDERATION



Modules

Project coordinator Module

6. DESIGN PHASE

1) Login: - Using username and password Project coordinator login into system. If authentication is fail Project coordinator cannot login into system.
2) Upload updates: - Project coordinator uploads and updates the project related work.
3) Upload file:- Project coordinator upload file for student information.
4) View Files: - Project coordinator View all files uploaded by student.
5) View Gant Chart: - Project coordinator view Gant chart of student working.

Project Guide Module

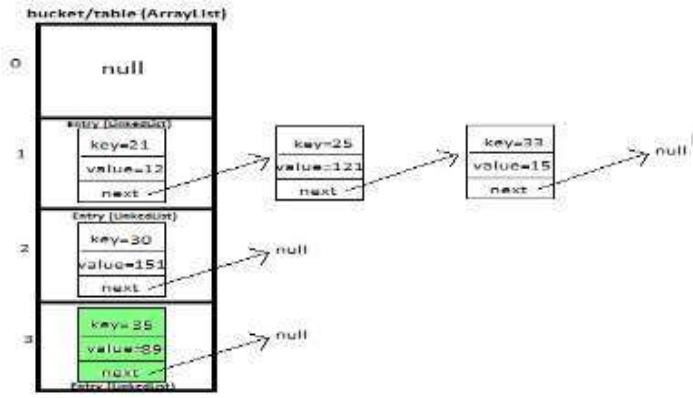
1) Login: - Using username and password Guide login into system. If authentication is fail guide cannot login into system.
2) Upload file:- Guide upload file for student information.
3) View Files: - Guide View all files uploaded by student.
4) View Gant Chart: - Guide view Gant chart of student working.

Student Module

1) Student Login: - Using username and password student login into system. If authentication is fail student cannot login into system.
2) View updates: - Student views all updates of the work which uploaded by Project coordinator or guide.
3) Upload file:- Student upload file and submit the completed work.
4) View Gant Chart: - Student view Gant chart of student working.

7. METHODOLOGY Hashmap

We are using hashmap data structure to implement automatic assigning of project guide with the domain to student groups. In our project, when all the students register to our portal, the group formation takes place and the next step includes assigning of guides according to their domains which are provided by the groups this unique assigning of guides to the groups is done using hashmap which is frequently used technique in java.



Requirement Analysis:

The requisite analysis is the consummate evaluation of end utilized requisite in order to detect system needs. The main objective of the requisite analysis is to identify end utilize business needs and discover prospect of the incipient system. Amassing facts is most consequential part of the analysis phase. The whole project will become nugatory and preposterous if the client's requisites are not accumulated and defined accurately since it will then not reflect what client authentically wants from the system. Most projects do not prosperity because there is no clear understanding the system requisites.

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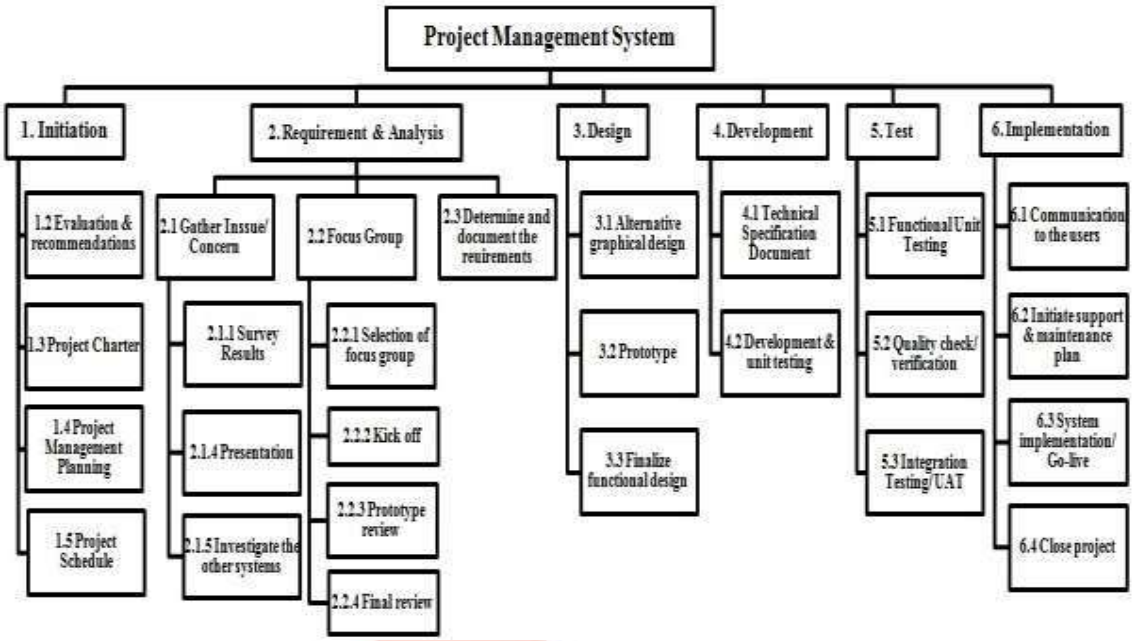

8. REQUIREMENTS

Hardware and Software requirements
Hardware:

1. Processor: Pentium 4
2. RAM: 4GB or more
3. Hard disk: 16 GB or more

Software Specification:

1. Windows Operating System.
2. Eclipse
3. Java
4. Apache Tomcat server
5. My SQL.

9. FUTURE MODIFICATION

The current system is developed for single department of college i.e. "*Department of Information Technology, Terna Engineering College"*. The further modification of the project is to create or expand the system in such way that it can be used at various institute or organization levels. It can be extended to more security. Using various levels of authentication and verification more security and privacy issues can be maintained by using various aspects.

10. CONCLUSION

Project Management System (PMS) is a very effective application which can be used to a great extent. PMS have many advantages over the traditional system. Some of these advantages are centralized data, up-to-date status reporting, E-mail notification, ease of use, backups etc. The use of this application reduces the extra time and efforts required to manage and monitor the final year projects in colleges. We are using a Hashmap feature of java to automatically assign the guides to the groups of students and different phases of WBS (work breakdown structure) for grading of the particular group. It also provides a good interface which is easy to understand by the users and helps in adapting to the use of this web application.

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