SURVEY ON STUDENT PROJECT MANAGEMENT SYSTEM

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ABSTRACT

Student Project Management System (SPMS) is essential for an institution or to a college or to a university, which effective use of computer, also which reduces manpower. Student Project Management System manages all the activities of the final year projects. It is a system for supervision, controlling, monitoring the final year projects of students. It is a web based portal or application which is useful for students, Head of the department, project coordinator and project guide. The main objective is to digitalize the whole process of project approval process by introducing an application as an update to the existing conventional model. This minimizes lot of time and it would be convenient for both the staff and the student. Initially all the students require 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. SPMS 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 based on project domains. Project coordinator is main characteristic of the system which will allocate different tasks to the students. Project coordinator and project guide is co-ordinate with each other and finally results should be intimated to Head of the department as well as required parameters to the students. Depending upon the different parameters, the work

is assigned by the coordinator and the progress plan of the group is created. For creating progress plan, the marks will automatically get assigned for particular group of the students. To take advantage of the latest technology and to facilitate students to make online inquiries about their project status a different tools are developed in SPMS.

I. Introduction

In today's world, no one 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. Supervising the final year projects manually is very stressful job. Nowadays the different tool is initiated to manage all the projects effectively and ensure that projects cycle goes on smoothly and they are completed on time. While accepted student's requirements, all necessary validations should be performed. In existing system project coordinator should generate the Student's list with group, Staff's name list with student group, Project domain name details, Project title list reports and project coordinator work to report status of the student project manually.

But using simple web portal anyone can carry out their project related work which is the main aim of Student Project Management System (SPMS). Project management is the process of planning, scheduling, resource management, requirement analysis, designing and testing to achieve project goals and objectives. Without student project management system it is difficult to complete projects in given time. Therefore, student project management system is required to remove such barriers in project development and to achieve specific goals.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. SPMS allows the group of students to provide 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 plant of the group is created and grades will get automatically assigned for the particular group of the students. E-mail notifications are sending to the groups about the important notices and updates related to their final year project.

II. Literature survey

Anthony [3],Ackoff [1], Koontz and O'Donnell [7], and McGuire [8] discuss about general management literature.This literature has ad-vocated basic principles of management, but they are far too wide to be of express use in collecting data for the review of an existing management system and they do not link the theory to the design of better management systems. However, the structure provided by these principles is necessary for the orderly development of our approach.

Glans, et al.. [6] and Couger [5] explains about systems analysis. These authors have tended to confer very detailed questions about systems operations. They often include checklists, paperwork flow analysis dealings, flowcharting, and other techniques which are used to analyze the clerical or operating subsystems of an organization. The approach tends to be ad hoc in nature and it presumes the type of improvements which are needed. Moreover, the systems analysis approach has notion the past concentrated sufficiently on the planning and control functions of management. Rather, it has been primarily concerned with improving operations. There is a need for the development of better methods for the review of management systems. In developing the review phase, the thrust is to provide an approach which is based on data collection and analysis and is systematic in nature. The next section provides a general description of the review phase structure which forms a basis for the development of specific data collection methodology.

Sanket Kale et.al 2017 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.

Xian Shannxi et.al 2010 introduce 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 et.al 2011 proposed a model 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 et.al 2012 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.

Violeta Bozhikova et.al.2009 gives an introduction of the art of software project management and fixes its place in the scope of project management discipline. The development of Project Management Software (PMS) is an active research area in the field of Project Management. A classification of the existing PMS is proposed manually. There are in need of development web based and collaborative PMS is commented in comparison with other PMS.

Gabriele Bavota et al 2012 presented a practical approach for teaching two different courses of Software Engineering (SE) and Software Project Management (SPM) in an integrated way. The two courses are taught in the same semester, thus allowing to build mixed project teams composed of five-eight Bachelor's students (with development roles) and one or two Master's students (with management roles). In this paper is insufficient to simulate a real-life development scenario giving to the students the possibility to deal with issues arising from typical project situations, such as working in a team, organizing the division of work and coping with time pressure and strict deadlines.

Iulian Intorsureanu, et al 2009 describes a design model for an integrated document system for project management, which takes into account the key requirement of ensuring consistent and high-quality project management documentation. The model is based on structured documents which rely on a static model of project management-relevant entities.

Michael M. Marti, P.E., et al 2005 designed PMS to make the job of a project manager easier and more efficient, providing applications to aid in planning, to manage project costs, and to track activities and monitor schedules. As more and more public works departments face the realities of increasing workloads and shrinking resources, finding technology applications that allow productivity gains becomes ever more important. The use of project management software as a tool for managing and organizing work has grown and continues to grow at a rapid pace in all industries. This paper reviews the ways in which it is currently being used in the course of transportation project delivery in Minnesota, and provides a tool to assist in choosing the right application to meet a local city or county's needs.

III. Existing System

Existing system of student project management system is maintained manually. Project coordinator or guide gives assignment 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 and which student completed the task. In the existing system does not help users to get project information at right time.

Limitations of existing system

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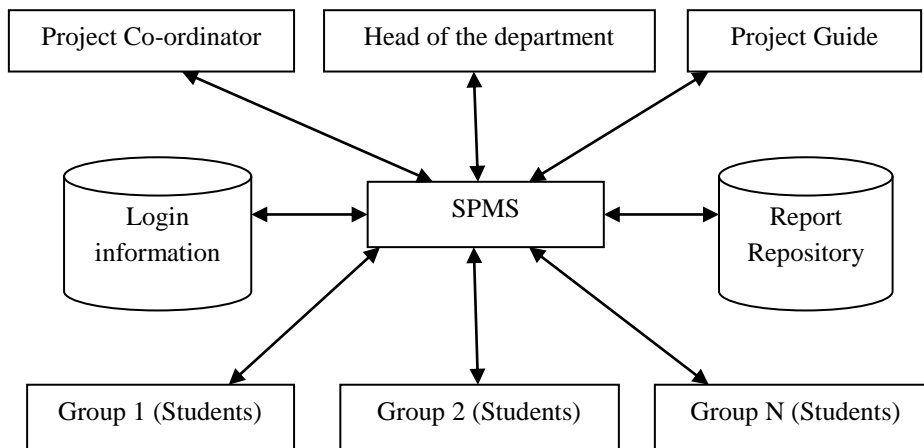4. All work is done manually.

IV. Proposed system

Summarizes these problem, in this proposed system can implement a system which can manage project related all work consummated by Project coordinator or guide. Project coordinator updates and associated information, view work done by a student at which time and view progress plan of work done by student, progress plan is developed. Student retrieved the given work information updates and consummates this work at given time and submits into the SPMS as shown in fig 1. To take advantage of the latest technology and to facilitate clients to make online inquiries about their project status a tool need to be developed. The tool should accomplish the following functions:

- Record different phases of a project.
- Facility to interact between student and guide.
- Define phase wise tasks.
- Keep a track of project schedules.
- Update the information about report .
- Phase wise project closures.
- Assign resources to a project.
- Access control for resources.
- Take daily efforts from each status
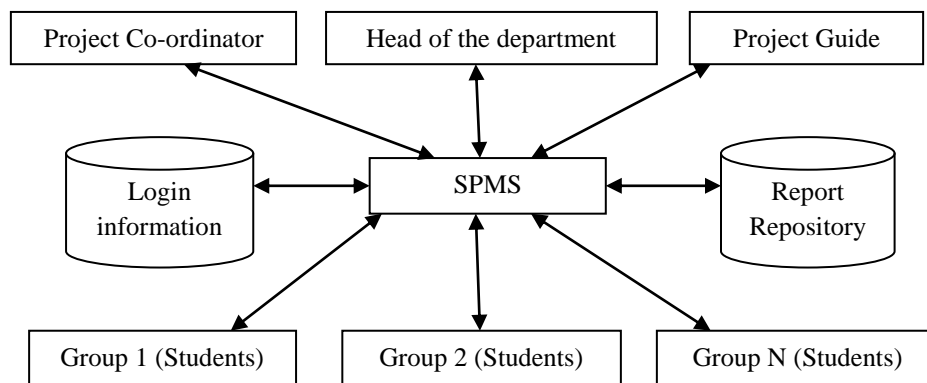
V. Discussion

Developing the SPMS has helped as web based tool instead of manual in development procedures. In future it can be developed with chat module between student and staff. The UI of this dashboard can be modified for user comfort. This can also be developed as an application. SPMS is a very effective application which can be used to a great extent. 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 which is frequently used technique in DotNet. Admin, Hod, Project-in-charge, Project Guide and Student modules are described in following diagrams sequentially.
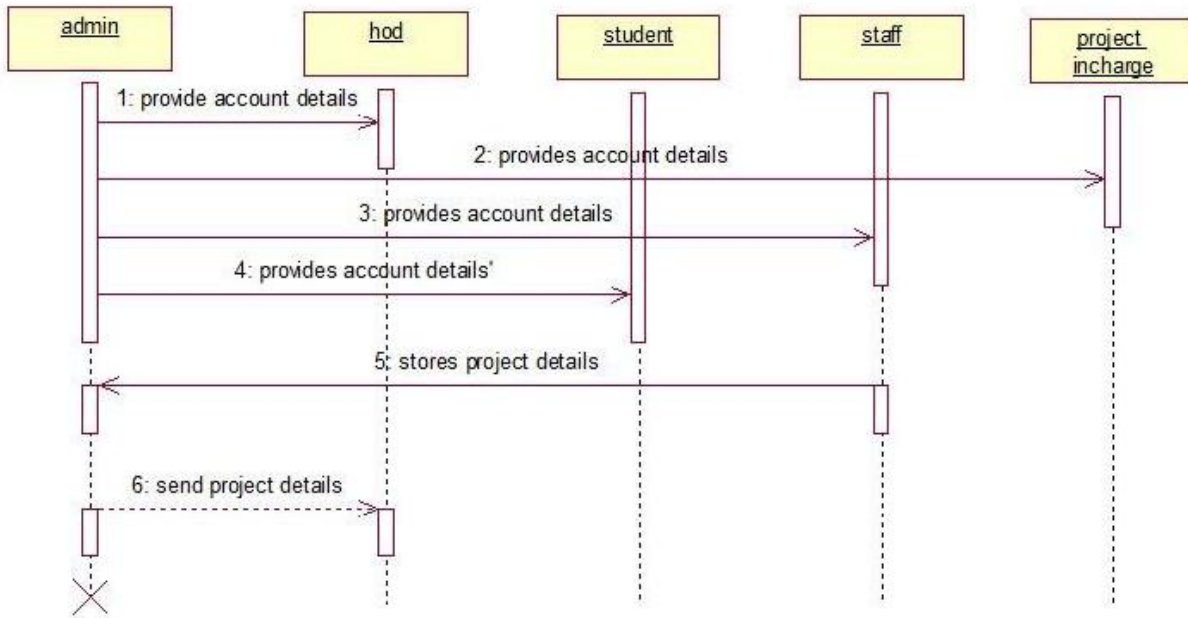
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┌──────────────────┐   ┌──────────────────────┐   ┌──────────────────┐
│ Project Co-ordinator │ │ Head of the department │ │   Project Guide   │
└──────────────────┘   └──────────────────────┘   └──────────────────┘


   ⬭ Login          ┌──────────┐          ⬭ Report
   information  ⟷   │   SPMS   │   ⟷      Repository
                    └──────────┘


┌────────────────────┐  ┌────────────────────┐  ┌────────────────────┐
│ Group 1 (Students) │  │ Group 2 (Students) │  │ Group N (Students) │
└────────────────────┘  └────────────────────┘  └────────────────────┘
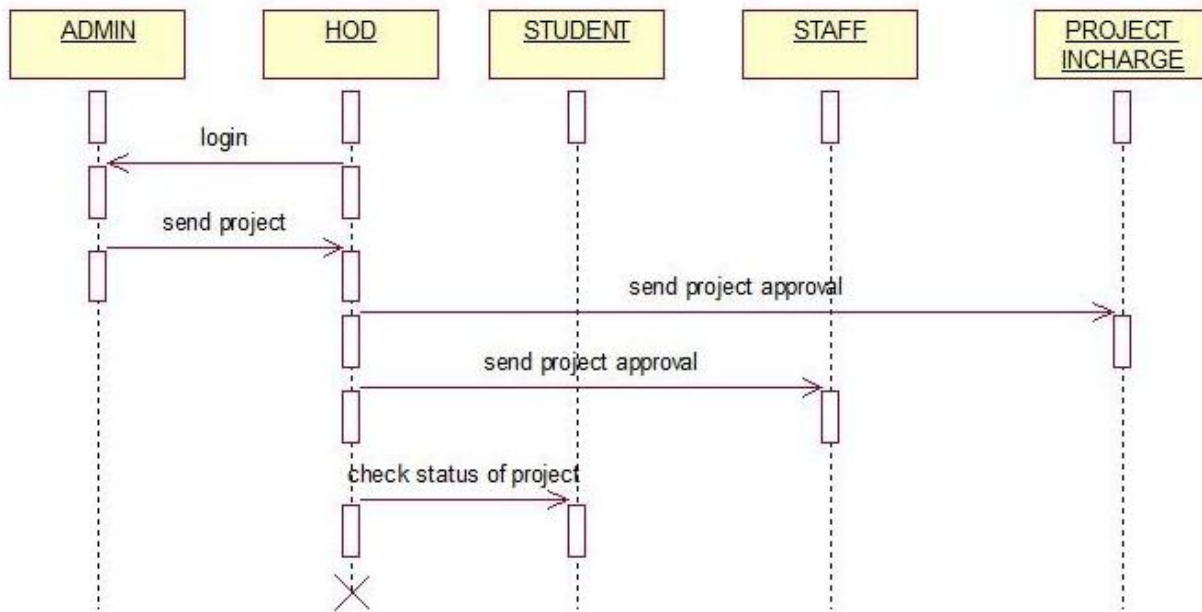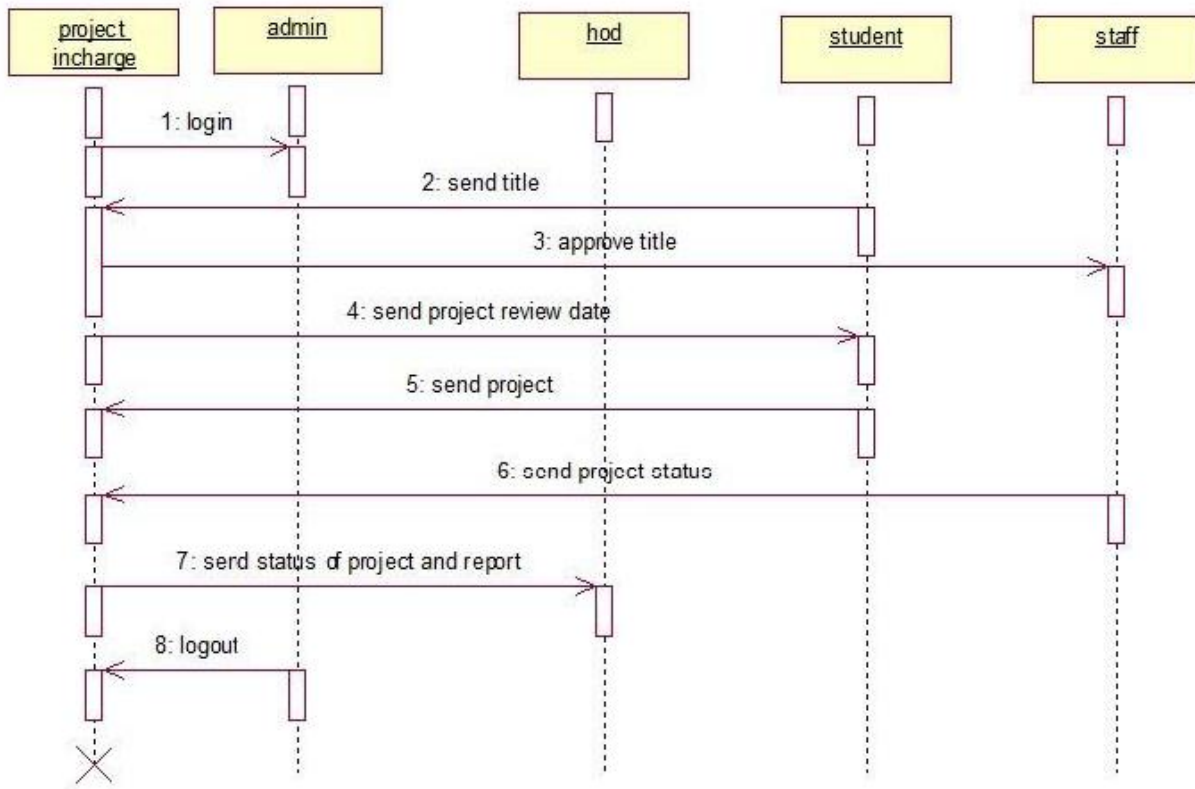```

Fig 2 Admin module



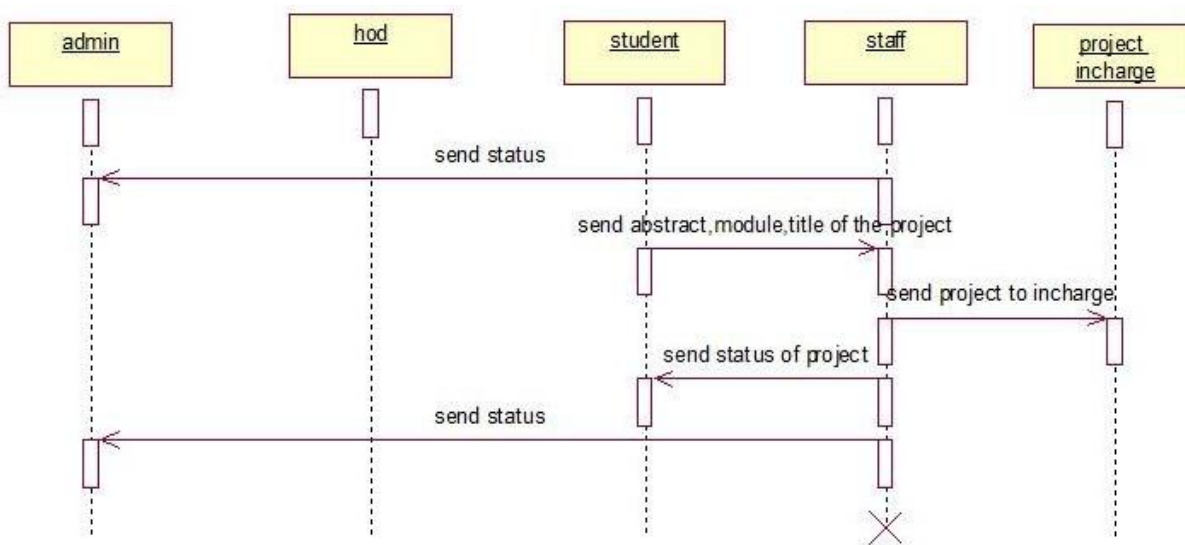Fig 3 HOD module

Fig 4 Project –in-charge module
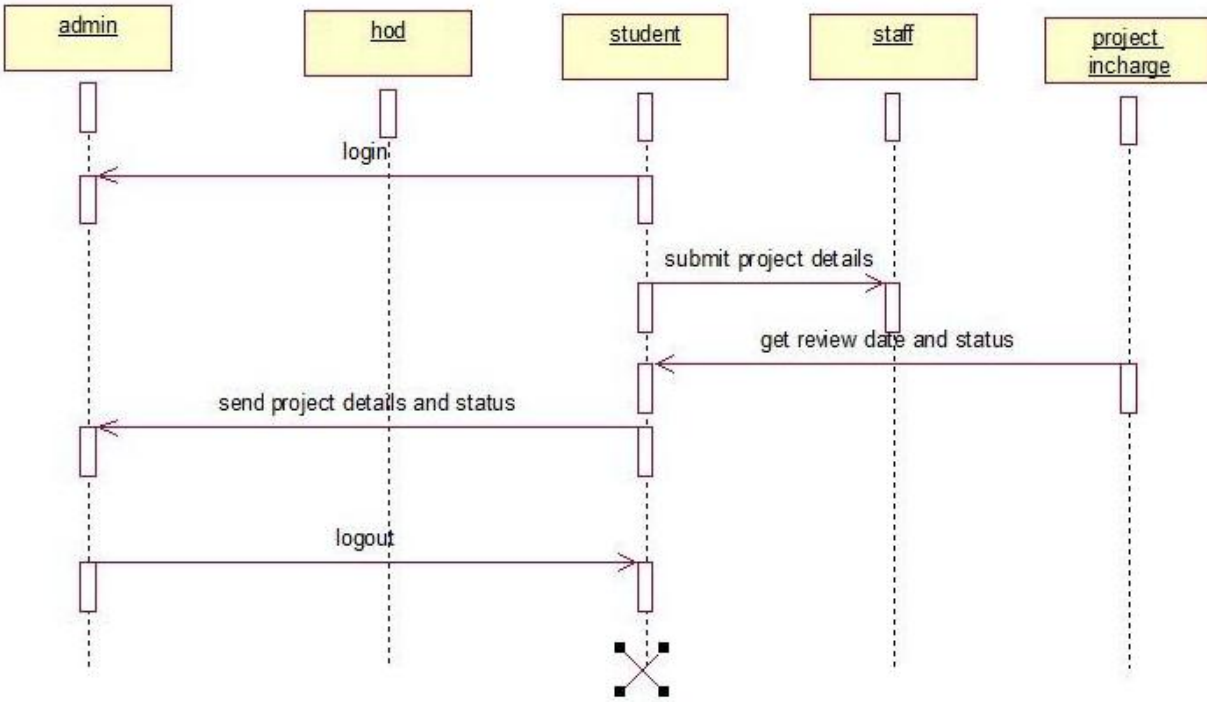


Fig 5 Project Guide(staff) module

Fig 6 Student module

## VI. Conclusion

Objectives that had been charted out in the initial phases were achieved successfully. System has strong security by providing user id and password. System is fully GUI based. It is easy to operate and user-friendly. Platform includes the in built back-up and recovery facility. It can be helpful to communicate and better understand the importance of planning and designing as a part of software development. The concept of peer-reviews helped to rectify the problems as and when they occurred and also helped to get some valuable suggestions that were incorporated. SPMS 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. Feature of DotNet technology automatically assign the guides to the groups of students and different phases of JBC (job breakdown construction) 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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