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# TaskCro

# Mahek Saxena<sup>1</sup>, Purvi Parashar<sup>2</sup>, Rajat Savita<sup>3</sup>, Rishabh Gupta<sup>4</sup>

1,2,3,4Computer Science and Technology, AITR, Indore, India

# ABSTRACT

The manual or traditional approach to managing and overseeing an organization's projects can be a tedious task. The objective of this project is to develop an integrated framework that can handle all project activities. The system is called TaskCro, which is a web-based platform designed for managing, tracking, and supervising an organization's projects. To get started, organizations need to register using the registration form, and upon successful registration, they can log in with their credentials to access the system. Once logged in, organizations can create their own classes, and project guides can log in using their credentials to access the system.

TaskCro provides organizations with at least three project domains, and project guides are automatically assigned to the organization groups. The Project Leader plays a critical role in the system as they assign tasks to the organizations, and project guides coordinate with the Project Leader. The supervisor delegates the tasks, and the progress chart of the organization group is generated based on various parameters, which uses a job breakdown structure to create a progress map. Based on the progress charts, the system automatically assigns marks to the organization group.

# **1. INTRODUCTION**

In today's world, relying on notice boards to disseminate project updates is ineffective. Many organizations struggle to keep track of their project activities because important details often get overlooked. The manual management of tasks can be stressful and time-consuming for organizations. The primary goal of the project management system is to simplify project-related work through a web-based platform. This system provides a clear web portal for organizations, project coordinators, and project managers to manage and monitor project activities.

Each module of the device has a unique user identity and password. Upon logging in, the module becomes authenticated and can access relevant information. The management system allows the organization group to have at least three project areas, and the system automatically assigns guides to each organization group. The project leader plays a key role in the system by assigning tasks to organizations, and project guides coordinate with the project leader.

The progress chart of the organization group is generated based on various job conditions assigned to the coordinator, and the system automatically assigns degrees to the specific group of organizations. Email alerts are sent to groups regarding relevant project notifications and updates.

TaskCro is a web application that allows organizations to manage tasks among their employees. The system includes various features such as commenting on tasks, uploading and downloading files, task forwarding, and creating new projects, tasks, employees, and users. This automation system stores work task information for organizations.

# 2. Purpose of The TaskCro

TaskCro is an automated support tool designed for the administrative staff of various departments. Currently, faculty work task requests are handled manually over the telephone, but TaskCro streamlines this process and reduces manual intervention. The system has three types of users: faculty, administrative staff, and personnel assigned to work tasks.

When a faculty member places a work task, administrative staff receive the request, which includes all necessary information, such as the availability schedule of the faculty member. The administrative staff then assigns the task to appropriate personnel. Once the work task is completed, the assigned personnel update the status of the task to "complete". Both faculty and administrative staff have access to various reports, such as pending/completed work tasks and average processing time.

TaskCro is a web application that any university can use to manage tasks among its employees. The system includes features like commenting on tasks, uploading and downloading files, task forwarding, and creating new projects, tasks, employees, and users. It serves as an automation system that stores work task information for universities.

#### 3. Scope

Managing software projects can be time-consuming and require a lot of collaboration between different teams. The success of the project depends on effective communication and knowledge transfer between various parties, including management, department heads, developers, and customers. Our project aims to improve task management through automation and business process automation. By implementing the TaskCro system, organizations can streamline their workflow and reduce the manual intervention required for task management. The system is designed to handle simple and complex business processes and integrate with automation tools for change management execution and verification. The primary goal of TaskCro is to support repeatable processes and improve productivity while reducing errors. With TaskCro, organizations can manage tasks more efficiently and effectively, resulting in better outcomes for all parties involved.

# 4. IMPLEMENTATION

The software system is designed to help companies manage various projects by providing easy management and tracking of projects and personnel assigned to them. The system can be customized to fit an organization's specific project management needs, allowing administrators to create and remove projects, set start and completion dates, assign team members, and track project progress. The system is especially useful in managing projects in corporate and educational environments.

Software project management is a time-consuming and highly people-intensive task that affects many different teams and their results. Effective project management procedures are needed to allocate resources and plan projects, especially when working on multiple projects concurrently. A web-based project coordination, monitoring, and management system offers a solution by automating project management functionalities, including document and resource management, team collaboration, and real-time progress assessment. The system also provides management reports to aid decision-making.

The Geek World is a tool for managing workflow and supporting repeatable processes, improving productivity, reducing errors, and defining business processes. The system uses client-server and web-based technologies, with JAVA SCRIPT as the main platform of development, and follows a 3-tier architecture.

The system requires different hardware and software components and allows both administrators and users to log in, view accounts, and perform various functions, such as creating, editing, and closing tasks. All users must log in with a user ID and password, with different privileges based on their type. An Admin user has extra privileges.

Tasks are assigned to specific employees under a project, and employees can comment on their task, attach files, forward tasks, and download attachments. There are two types of employees, Admin and User, both of whom must be employees.

The system is built using Next.js, HTML, JavaScript, and CSS, with MONGO DB as the database and AWS as the web server. The operating system server is Microsoft Windows 7, and the database server is Microsoft SQL Server 2012.

The research on the proposed system is viable and will save organizations time on non-official duties. The software aims to be one of the best Task Manager web portals, providing an efficient communication and working platform to make tasks easier and faster.



# 5. Benefits of The TaskCro

TaskCro is a task management app that offers numerous benefits to individuals and teams. The app can help users to stay organized, prioritize tasks, and set deadlines, resulting in increased productivity and efficiency. Additionally, TaskCro provides a clear overview of tasks and deadlines, allowing users to manage their time more effectively and reducing the risk of missing important deadlines. By providing a central location for all tasks and deadlines, TaskCro can also help reduce stress and improve collaboration among team members. The app allows team members to assign tasks, set deadlines, and track progress, increasing accountability and ensuring that projects stay on track. Finally, by providing a centralized platform for task management, TaskCro can improve the quality of work by reducing errors and ensuring that all tasks are completed on time. Overall, TaskCro is an essential tool for anyone looking to manage tasks effectively and increase productivity.

# 6. Existing Systems

The current task management system is a manual process, where the project leader or guide assigns tasks to the organization, and the work is completed manually. This method is time-consuming and lacks efficiency as it requires constant attention from the project coordinator or guide to keep track of the progress of the organizations. Additionally, users cannot easily access the necessary details at the right time, and handling project progress becomes challenging.

There are several drawbacks to this system, such as the inability to quickly track organization attendance status, confusion and mistakes while modifying organization/staff information, and incompatibility and inaccuracy in data maintenance. Moreover, the system is challenging to understand for laymen, and adequate instructions are necessary to operate the system effectively, making it extremely inefficient.

Overall, the manual process is time-consuming, and the right information at the right time is not easily accessible. Furthermore, team members or the project leader or guide cannot view changes to the data made by other team members immediately.

## 7. Conclusion

Our project is a modest attempt to address the project management needs of users. We have adopted user-friendly coding techniques to make this software package a robust solution that meets all the necessary requirements. The primary goal of our software planning is to provide a framework that enables managers to make reasonable estimates of project timelines and costs at the outset of the software project. This framework should be regularly updated as the project progresses. Our management system is a highly effective program that simplifies the work process, providing numerous benefits over traditional methods, including centralized information, real-time status monitoring, e-mail notifications, ease of use, backups, and more. Our application eliminates the need for additional time and resources to plan and track tasks. We assign guides to organization groups to streamline the process. Our user interface is user-friendly and helps users adapt quickly to the web service.

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