

Research Paper / Article / Review

DOIs:10.2015/IJIRMF/202412004

Effi-Tasker: A Smart Task Management System for Enhanced Productivity and Workflow Optimization

--:--

¹Gagana Atchula, ²Rohini Jadhav, ³Shriya Balsaniwar, ⁴Billa Vikas, ⁵Koneru Chetan ^{1,3,4,5}Student, Department of CSE(DS), Hyderabad Institute of Technology and Management, Hyderabad,India ²Assistant Professor, Department of CSE(DS), Hyderabad Institute of Technology and Management, Hyderabad,India

Email –¹gaganaatchula@gmail.com, ²Rohini70630@gmail.com, ³shriyabalasani@gmail.com, ⁴billavikas0102@gmail.com, ⁵chetankoneru215@gmail.com

Abstract: The "Employee Task Management System" is a web-based application developed using PHP and MySQL, designed to enhance task management processes within an organization. It provides managers with a user-friendly interface for assigning, monitoring, and tracking tasks in real-time, which promotes efficiency and accountability. Tasks can be viewed by their status—pending, in progress, or completed—and can be filtered by employee or task type. This feature gives managers a clearer overview of how many tasks different employees are handling. Employees also have a dedicated area that lists their assigned tasks, provides updates on progress, and offers feedback or reports, thereby improving communication and transparency in workflows. All essential data is stored securely in a MySQL database, which includes employees' personal information, task descriptions, deadlines, and updates. This ensures the system's consistency and easy access to information. The system is protected from unauthorized access through a login function. Basic operations such as adding, viewing, updating, and deleting tasks or employee records have been implemented. Additionally, there is a history log that documents all task changes, ensuring accountability. The system is designed to be expandable to meet organizational needs. Future developments could include automatic notifications via email or SMS for upcoming deadlines and enhanced reporting on performance, as well as integrations with third-party systems like HR tools or time management applications. Ultimately, this approach aims to optimize task management processes, increase accountability, and promote structured teamwork across the organization.

Key Words: Task management, PHP, MySQL, Real-time control, Productivity, Secure database, User-friendly, Scalability, Employee performance, Automated systems.

1. INTRODUCTION:

The "Task Management by Employees" application is an agile web-based solution developed using PHP and MySQL to improve organizational task management. It assists managers in assigning, evaluating, and completing tasks, thereby increasing productivity and enhancing accountability within teams. Managers can allocate tasks, track progress in real time, and keep a record of completed tasks for better time management and the achievement of project objectives. The application is user-friendly, designed for easy use by both employees and managers, which facilitates effective communication.

All tasks are displayed on a central dashboard that shows their status, allowing managers to categorize tasks as executed, in progress, or completed. This feature helps supervisors distribute workload evenly among team members to ensure smooth operations. Employees can log into the system to view their assigned tasks, monitor their progress, and access comments or reports related to projects, enhancing communication and control.



The backend system is built on a secure MySQL database that stores essential data, including employee profiles, task details, deadlines, and updates. The system includes basic functionalities for creating, reading, updating, and deleting records, allowing managers to efficiently manage tasks and employee information. Additionally, it features a task history log that records all changes made to tasks, promoting transparency and accountability. User authentication ensures data protection, allowing access only to authorized individuals.

This system is designed to grow with the organization, accommodating future updates and potential new features. Planned improvements include automated task deadline notifications, advanced reporting tools for performance measurement, and integration with other software, such as human resource management systems or time tracking tools.

The Employee Task Management System enhances organizational productivity, promotes teamwork, and improves operational efficiency by providing a structured and organized approach to task management. Furthermore, this system not only boosts productivity but also fosters responsibility and transparency within teams. Providing both managers and employees with a clear overview of tasks and their progress reduces miscommunication and encourages employees to take ownership of their work. Features such as task history logs and real-time updates keep employees engaged, enabling managers to make informed decisions about resource allocation. Ultimately, the system contributes to a more efficient and collaborative work environment, allowing teams to remain focused on common organizational goals.

2. LITERATURE REVIEW:

Title: Online Task Management System(OTMS) - Hedaoo, G.

The Online Task Management System (OTMS) is an Android-based platform designed to streamline task management and communication in colleges. It allows administrators like HODs and teachers to assign tasks, track progress, and send notifications, while students and assistants can view tasks and updates. Key modules include Login, Registration, Task, Notification, Message, and Complaint handling. Developed with Android Studio, PHP, MySQL, and JSON, OTMS replaces manual processes, enhances resource allocation, and ensures effective communication between faculty and students. [1].

Title: Employee Task Tracking System - Sandhya, K.

The Employee Task Tracking System, developed in Python, streamlines task management for organizations by allowing administrators to assign tasks, set deadlines, and prioritize work. Employees can view tasks, update their status, and collaborate with team members and supervisors. Managers can monitor real-time progress, ensuring transparency and accountability. The system enhances productivity, fosters collaboration, and provides insights into task progress and workload distribution, enabling data-driven decisions. It replaces manual methods with a comprehensive, efficient solution for tracking tasks and improving organizational efficiency. [2].

Title: Employee Task Tracking System – Akshatha.

The Employee Task Tracking System is a web-based platform that simplifies task and employee management for organizations. It enables admins to register employees, assign and track tasks, monitor progress, and manage employee data like promotions and transfers. With features like real-time task tracking, reporting, and secure user authentication, it ensures accountability and timely task completion. Designed for ease of use, even non-technical users can manage tasks and employee information efficiently. The system addresses gaps in traditional management methods by offering a centralized, secure, and structured approach to task and employee management. [3].

Title: Employee Task Management System – Mounika, Y.

The Employee Task Management System with High Authentication streamlines task management, attendance tracking, and payroll processing while enhancing security using an Implicit Password Authentication System (IPAS). Admins assign tasks to employees, who are notified via email, and monitor attendance and payroll, including automated salary calculation and payslip generation. Employees access tasks, attendance records, and payslips securely through IPAS, which includes random security questions and OTP verification. The system improves organizational efficiency, ensures



data security, and simplifies workflows. Future upgrades may include leave management and password change options for admins and employees. [4].

Title: Employee Task Tracking Systems - Ranjini, R.

The Employee Task Tracking System is a web-based platform for efficient task and employee management in organizations. Admins can manage departments, employee records, tasks, and priorities while tracking progress and generating reports on activities and task statuses. Employees can view and update tasks, track progress, and manage their profiles and passwords. The system ensures secure data storage, seamless communication, and collaboration between employees and management. By automating administrative tasks and centralizing information, it enhances productivity, improves oversight, and streamlines workflows.[5].

Title: Performance Management System and Its Role for Employee Performance: Evidence from Ethiopian SMEs - Nuru Siraj István Hágen

The study explores the role of Performance Management Systems (PMS) in enhancing employee productivity in Ethiopian SMEs, which play a vital role in job creation and poverty reduction. Using qualitative and quantitative methods, including literature review and linear regression analysis, the study concludes that effective PMS implementation significantly improves employee performance and productivity in SMEs.[6].

Title: Imagining Future Digital Assistants at Work: A Study of Task Management Needs-YonchanokKhaokaew

This study investigates workers' needs for digital assistants (DAs) to improve task management in the workplace, focusing on time, task, and information management across different occupations. A four-week user study with 40 participants using qualitative and quantitative methods revealed that desired DA features vary by occupation and task characteristics. The findings guide the design of future DAs to better support diverse roles and offer practical recommendations for creating more functional workplace solutions. [7].

Title: Analyzing Content of Tasks in Business Process Management: Blending Task Execution and Organization Perspectives - Nina Rizun

This study focuses on task content analysis in Business Process Management (BPM), emphasizing the need for efficient task organization and execution for organizational success. It examines task organization through HR and skill planning and task execution via indicators like structure, cognition, importance, and typology. Using the Strategic Alignment Model and ITIL IT ticket processing as examples, the study proposes a task content model aligning IT capabilities with task and performer characteristics. The findings highlight the importance of structured task analysis to improve execution and align tasks with organizational goals amid growing complexity from technological advancements. [8].

Title: How Personal Task Management Differs Across Individuals - Mona Haraty

This study examines individual differences in personal task management (PTM) behaviors through a focus group and survey, categorizing people as DIYers, make-doers, or adopters based on how they manage tasks. It found that most individuals display a mix of these tendencies, influencing how they record, remember, and maintain task lists. The study recommends that PTM tools should support customization for DIYers and seamless integration for make-doers to better accommodate diverse task management styles.[9].

Title: An Approach to Employees' Job Performance Through Work Environmental Variables and Leadership Behaviours - M. Angeles Lopez-Cabarcos

This study examines how work environment factors and leadership behaviors impact employee job performance, using fuzzy-set qualitative comparative analysis (fsQCA). It finds that transformational leadership and social support are key drivers of job performance, while employee empowerment and task significance play a secondary role. The research highlights the importance of positive leadership and a supportive work environment in enhancing performance and suggests that managers should focus on transformational leadership practices. The study also proposes future research to explore these relationships further.

[10].



3. METHODOLOGY:

HTML (HyperText Markup Language) is used for structuring the content of web pages, defining elements like text, images, and links. CSS (Cascading Style Sheets) is used to style and design the layout of web pages, controlling aspects like colors, fonts, and positioning. JavaScript enables dynamic interactions and client-side functionality, such as form validation and real-time updates. PHP (Hypertext Preprocessor) is a server-side scripting language that processes data, manages sessions, and interacts with databases. MySQL is an open-source relational database management system used to store and manage data efficiently, such as user information and task details in the system. These technologies work together to create a functional, interactive, and efficient online task management system.



Fig 3: Block Diagram

The Employee Task Management System starts at the Home Page, where users have the option to register or log in. Once logged in, users are directed to a dashboard where they can update task progress, apply for leave, or check their leave status. The system includes an admin login that allows administrators to create and manage tasks, as well as process leave applications. Both users and admins can log out to ensure session security. This structured workflow promotes efficient task tracking and simplifies leave management while clearly defining the roles and functionalities of both users and administrators.



Fig 3.1: Home Page



This log-in interface of the Employee Task Management System has been designed to allow the user to have multiple choices for login roles. Three options are provided: "User Login" in a green button, "User Registration" in a yellow button, and "Admin Login" in a blue button. In this way, users as well as admins are easily directed to the login or registration screen according to their respective roles in the system. The interface is simple, with a clear prompt asking the user to choose his or her login role.



Fig 3.2: User Login Page

The "User Login" screen of the Employee Task Management System is depicted in the image. The interface prompts a user to input their email and password with a yellow "Login" button that submits his/her information. There is a red "Go to Home" button at the end, which will allow the users to navigate back to the homepage. This interface will only provide easy access to the system for registered users.

Task Manag	Task Management System		Name: A. Gagana	
Dashboard	Apply Leave			
Update Task	Enter Subject			
Apply Leave	Type Message			
Leave Status				
Logout		<u>.</u>		
	Submit			

Fig 3.3: User Leave Page

The above graphic indicates the "Apply Leave" area of the Task Management System. To start a leave request, a user should key in a subject in the given text box and, in the text area, provide a clear message on the leave request. After inputting the required information, the "Submit" button triggers the leave request to be sent to the relevant authority.



Fig 3.4: User Registration Page



The image depicts a user registration form. It has fields that request the user's name, email, password, and his or her mobile number. After filling up the form, users can click on the "Register" button to create an account or on the "Go to Home" button to return to the main page.



Fig 3.5: Admin Login Page

This image displays an admin login form. The admin login form requires the user to input their email and password. After entering the credentials, clicking the "Login" button will log the user into their account and permit them to access the admin panel. Users can also click the "Go to Home" button to return to the main page.

Task Management System						Email: admin@gmail.com Name:	
Dashboard		All Assigned Tasks					
Create Task	S.No	Task ID	Description	Start Date	End Date	Status	Action
Manage Task	1	3	mention task	2024-09-07	2024-09-20	Complete	Edit Delete
ve Applications	2	4	task goes here	2024-09-13	202 <mark>4-0</mark> 9-19	Not started	Edit Delete
Logout	3	5	cook food	2024-09-06	2024-09-06	Not started	Edit Delete
	4	6	finished	2024-09-20	202 <mark>4-0</mark> 9-20	Complete	Edit Delete
	5	8	take the work	2024-09-10	202 <mark>4-09-</mark> 12	Complete	Edit Delete
	6	9	hello hii	2024-09-13	2024-09-14	In-Progress	Edit Delete

Fig 3.6: Page of Assigned Task to the Users

The image shows the "All Assigned Tasks" section of a Task Management System. It will have a table that contains various tasks with information such as ID, description, start date, end date, present status, and options for edit and delete. The left sidebar options include creating and managing tasks, reviewing leave applications, and logout.



,		,						
Dashboard	All Leave Applications							
Create Task	S.No	User	Subject	Message	Status	Action		
Manage Task	1	A. Gagana	Regarding one day CL	sir, Having urgent work at home. I cannot attend the office today. Kindly grant me one day CL. Thank	Approved	Approve Rejec		
ave Applications	2	Bharath	Regarding 2 days leave	sir I want 2 days EL for some urgent work with station leave permission.	Approved	Approve Rejec		
	3	Geetha	Leave subject goes here	Message of the leave will be here. Thank You	Approved	Approve Rejec		
	4	A. Gagana	Leave subject	i want leave thank you.	Approved	Approve Rejec		
	5	A. Gagana	Leave subject hil	hello sir	Rejected	Approve Rejec		

Fig 3.7: Leave Application in the Admin Page

The image shows the "All Leave Applications" portion of a Task Management System. It contains a table that shows different leave applications for users, which are established with the user's name, subject of the leave, message, current status, and options for the admin to accept or reject a leave application. The left sidebar contains options for navigating the admin, including the creation of tasks, management of tasks, reviewing of leave applications, and logging out.

4. CONCLUSION:

The Employee Task Management System is a web-based platform using PHP and MySQL to streamline task handling and human resource management within organizations. It improves productivity through task assignment, tracking, leave management, and secure login features. The system stores data in a MySQL database with a history log for accountability and scalability. Future enhancements like automated notifications and advanced reporting are planned. Overall, it increases efficiency, reduces miscommunication, and promotes accountability, making it a crucial tool for optimizing workflow and productivity in modern organizations.

REFERENCES:

- 1. Hedaoo, G., Thoke, P., Tabhane, R., Meshram, S., Kumbhalkar, S., &Barapatre, M. (2018). *Online Task Management System*. IRE Journals.
- 2. Sandhya, K., & Shri, S. (2023). *Employee Task Tracking System*. International Research Journal of Modernization in Engineering, Technology, and Science.
- 3. Akshatha, & Madhu, H. K. (2023). Employee task tracking system. *International Advanced Research Journal in Science, Engineering and Technology*, *10*(7), DOI: 10.17148/IARJSET.2023.10778.
- 4. Mounika, Y., Kumar Reddy, S. T., Ravikiran, S., Vijay Kumar, M. R., & Sowjanya, D. (2019). *Employee Task Management System with Enhanced Security Features*. International Research Journal of Engineering and Technology (IRJET).
- 5. Ranjini, R., & Kala, S. (2023). *Employee Task Tracking System*. International Journal of Advanced Research in Computer Science and Engineering (IJARIIE).
- 6. Siraj, N., & Hágen, I. (2023). Performance management system and its role for employee performance: Evidence from Ethiopian SMEs. *Heliyon*, 9(11), e21819.
- Khaokaew, Y., Holcombe-James, I., Rahaman, M. S., Liono, J., Trippas, J. R., Spina, D., Bailey, P., Belkin, N. J., Bennett, P. N., Ren, Y., Sanderson, M., Scholer, F., White, R. W., & Salim, F. D. (2022). Imagining future digital assistants at work: A study of task management needs. International Journal of Human-Computer Studies, 168, 102905.
- 8. Rizun, N., Revina, A., & Meister, V. G. (2021). Analyzing content of tasks in business process management: Blending task execution and organization perspectives. *Computers in Industry*, *130*, 103463.
- 9. Haraty, M., McGrenere, J., & Tang, C. (2015). How personal task management differs across individuals. *International Journal of Human-Computer Studies*, 88, 1-14.
- López-Cabarcos, M. Á., Vázquez-Rodríguez, P., & Quiñoá-Piñeiro, L. M. (2021). An approach to employees' job performance through work environmental variables and leadership behaviours. *Journal of Business Research*, 135, 548-556.