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Beenium – An Intelligent Task Management and Performance Tracking System

OM SHINDE[1], DR. PRATIBHA ADKAR[2]
[1,2]*MCA Department, P E S Modern College of Engineering Pune, India*

Abstract- ***Beenium is a digital productivity platform designed to help teams organize work, assign responsibilities, monitor completion, and evaluate contribution through a transparent scoring mechanism. The system brings task planning, progress tracking, reminders, communication, and performance analytics into one interface so that managers and team members can coordinate without relying on scattered spreadsheets or manual follow-ups. Its workflow centers on task assignment, deadline monitoring, status updates, and a performance score that reflects completion quality, timeliness, and consistency. The platform is intended for organizations that want a simple but structured way to improve accountability, visibility, and teamwork. By combining a user-friendly dashboard with automated reminders and reporting tools, Beenium reduces coordination overhead and supports better decision-making.***

Keywords—Task Management, Team Collaboration, Performance Tracking, Productivity Score, Work Assignment, Reminder System, Analytics Dashboard, Workflow Automation.

I. INTRODUCTION

Modern teams often work across multiple tools at the same time: chat applications for communication, spreadsheets for planning, and separate trackers for reporting. This fragmentation makes it difficult to see the full status of ongoing work, especially when task ownership changes frequently or when deadlines are missed without timely notice. As a result, managers spend significant time asking for updates, while employees lose focus switching between tools.

Beenium is proposed as a unified task and performance management platform that keeps planning and execution within a single environment. The application allows managers to create tasks, set priority and deadlines, allocate work to individuals or groups, and observe progress in real time. For team members, it provides a clear list of responsibilities, reminders for pending work, and an easy way to update task status. The scoring system adds an additional layer of visibility by turning day-to-day execution into measurable performance indicators.

The objective of the project is not only to assign work, but also to create a workflow that encourages responsibility and continuous improvement. When task completion, responsiveness, and consistency are displayed in a structured dashboard, both individuals and teams can identify strengths, delays, and workload imbalance more quickly. Therefore, Beenium acts as a practical productivity support system for teams that want clearer coordination and stronger accountability.

II. LITERATURE SURVEY

Rajshree Misara et al. (2025) – Reviewed gamification in management studies and highlighted that gamified systems improve employee engagement, accountability, and workplace productivity when carefully designed. This aligns with Beenium's objective of improving team performance through measurable task management.

Giacomo Garaccione et al. (2024) – Investigated gamification in business process modeling and found that rewards, progress tracking, and feedback increased motivation and productivity. This supports Beenium's use of progresss indicators and task scoring.

Katie Seaborn (2021) – Studied the long-term impact of gamification and explained that systems should balance motivation with usability to avoid user fatigue. This is relevant to Beenium because the platform uses lightweight gamification instead of excessive competition.

Lei Chen et al. (2020) –Explored collaborative behavior and engagement in analytics tasks using digital devices. Their work showed that visual feedback and collaborative interaction improve user participation and coordination, supporting Beenium's dashboard and shared task visibility model.

Suprateek Sarker et al. (2020) – Discussed the growing dependence on digital collaboration tools in distributed work environments. Their observations indicate the need for lightweight systems that can support remote task coordination without adding complexity.

Thomas Hamari et al. (2014) – Studied gamification in digital systems and found that progress indicators, badges, and score-based feedback can improve participation when the design is simple and meaningful. Their work is relevant to Beenium because it shows that visible scoring can motivate users when the feedback Is connected to real work outcomes.

Sebastian Deterding et al. (2011) – Defined gamification as the use of game design elements in non-game contexts. The scoring and leaderboard-style elements in Beenium follow this idea by turning routine work tracking into an engaging and measurable activity.

Thomas H. Davenport and Jeanne G. Harris (2007) – Showed that organizations benefit when operational decisions are supported by analytics rather than intuition alone. Beenium follows the same direction by presenting dashboards and performance summaries that help managers review workload and output patterns.

III. RESEARCH GAP

Although many task management tools exist, several practical gaps remain in systems that are used by small and medium teams. Most platforms either focus only on task assignment or only on communication, leaving performance evaluation and accountability incomplete. Based on this review, the following gaps were identified:

1. Scoring is often absent or too generic, making it difficult to translate day-to-day work into meaningful performance feedback.
2. Task and communication data are frequently stored in separate places, which reduces traceability and slows down decision-making.
3. Reminder mechanisms are usually basic and do not adapt well to priority changes, overdue work, or recurring tasks.
4. Many systems provide dashboards, but few present workload and completion trends in a way that is easy for non-technical users to interpret.
5. A number of tools are feature-heavy and complex, which makes adoption difficult for teams that need a lightweight and intuitive solution.

These gaps indicate the need for an integrated, easy-to-use platform that combines task allocation, reminder support, progress visibility, and a transparent scoring model. Beenium is designed to address this need by keeping all key workflow elements in one place while remaining simple enough for everyday use.

IV. SYSTEM ARCHITECTURE

Beenium follows a layered architecture so that the interface, business rules, data storage, and analytics remain separated from one another. This approach improves maintainability and helps future updates be added without disturbing the entire system.

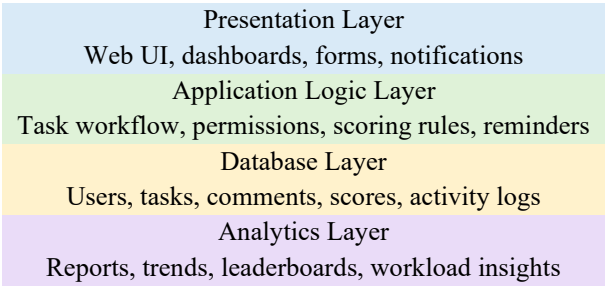

Figure 1 – Beenium System Architecture

1. Presentation Layer The Presentation Layer is the user-facing part of Beenium. It provides the task dashboard, scoring view, reminder panel, and team communication screens in a responsive format. Its role is to present information clearly so that users can create tasks, update status, and review progress without learning a complex interface.

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2. Application Logic Layer The Application Logic Layer contains the business rules of the platform. It manages task creation, assignment, due-date checks, notifications, role-based access, and score calculation. When a task is completed or delayed, this layer updates the score and activity history according to the defined rules.

3. Database Layer The Database Layer stores core data such as user profiles, tasks, comments, due dates, completion records, and performance history. A structured database allows the system to retrieve task information quickly and keep a reliable audit trail for reporting.

4. Analytics Layer The Analytics Layer converts stored activity into useful summaries. It produces dashboard cards, completion trends, overdue lists, workload summaries, and score breakdowns. This helps managers identify bottlenecks and supports users who want to improve their productivity over time.

V. WORKING OF THE SYSTEM

Login / Registration
Task Assignment
Status Update
Reminder Check
Score Calculation
Reports / Analytics
Improvement Cycle

Figure 2 – Flow of Beenium System

Beenium works as a continuous workflow platform. A user logs in, views assigned tasks, receives reminders, completes work, and updates status. The system collects these interactions and uses them to calculate a performance score and generate summary reports.

1. Login / Registration – The admin or project owner creates user accounts and assigns roles such as admin, manager, or team member. Authentication ensures that only authorized users can access the workspace.

2. Task Assignment– A manager creates a task, adds a title, description, priority, deadline, and optionally attaches files or notes. The task is then assigned to an individual or group for execution.

3. Status Updates– Team members update the task as pending, in progress, blocked, or completed. Comments and attachments help keep discussion connected to the task itself.

4. Reminder Check – The reminder module checks deadlines and sends alerts for upcoming due dates, overdue items, or recurring tasks that need attention. This reduces the chance of missed follow-up.

5. Score Calculation – The scoring engine evaluates completion time, consistency, priority handling, and overdue behavior. Each activity contributes to a performance score that gives a quick view of productivity.

6. Reports / Analytics – Managers and users can review charts and summaries that show completed tasks, pending work, delay patterns, and individual performance trends. This supports planning and review meetings.

7. Improvement Cycle – The collected data helps users identify workload issues and improve future planning. Over time, the platform supports a more disciplined and predictable work culture.

VI. SYSTEM SCREENS

1.Login and Role Selection Screen:

Users enter their credentials and are redirected according to their role. Admin users view full

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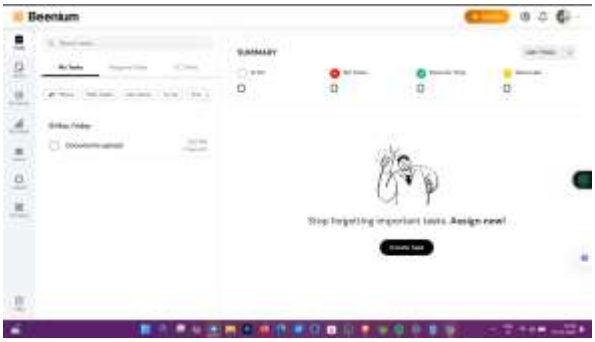
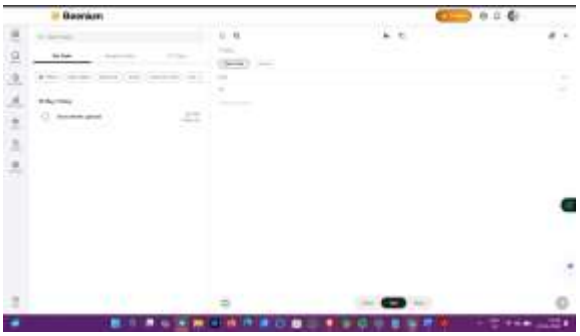
controls, while team members see only the modules assigned to them.

2.Main Dashboard:



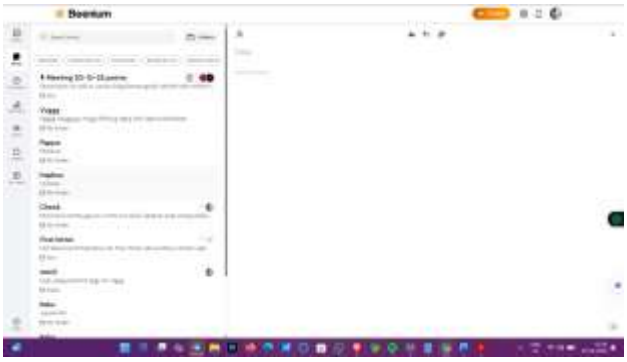
The dashboard displays active tasks, completed tasks, overdue items, and the current performance score in one view. It gives an immediate snapshot of workload and progress.

3.Task Board Screen:



This screen lists tasks by status and priority. Users can filter by owner, deadline, or category, making it easier to find pending work.

4. Task Details and Comment Screen:



Each task includes descriptive fields, attachments, discussion notes, and history entries. This keeps the full context of the task in one place.

5. Performance Score Screen:

The score view explains how the productivity score is derived from deadlines, consistency, and task completion behavior. It helps users understand what influences their rating.

6. Reports and Analytics Screen:

This screen provides charts, summaries, and export options for weekly or monthly reviews. Managers can compare individuals, teams, or task categories.

VII. APPLICATIONS

1. Corporate Teams: Helps departments track assignments, deadlines, and accountability across multiple projects.
2. Startups: Provides a lightweight way to organize fast-changing tasks without needing a heavy project management suite.
3. Remote and Hybrid Workplaces: Keeps distributed teams aligned through shared task visibility and progress updates.
4. Student or Academic Projects: Supports group work, milestone tracking, and individual contribution monitoring.
5. Service and Operations Teams: Useful for teams that handle recurring requests, follow-ups, and priority-based work queues.

VIII. ADVANTAGES

1. Centralized task tracking reduces confusion and keeps work records organized.
2. The scoring model adds transparency and motivates timely completion.
3. Automated reminders help prevent missed deadlines and forgotten follow-ups.
4. Dashboards provide quick insight into workload, progress, and performance trends.
5. Simple workflows improve adoption for users who prefer a clean and minimal interface.
6. Historical records make it easier to review past work and prepare reports.

IX. LIMITATIONS

1. The usefulness of the score depends on how carefully the scoring rules are configured.
2. A task system cannot fully measure qualitative contributions such as creativity or informal support.
3. Reminder accuracy depends on users keeping deadlines and task details up to date.
4. The platform may require network access for real-time synchronization and notifications.
5. Like any digital collaboration tool, it needs proper access control and regular security maintenance.

X. CONCLUSION

Beenium is a practical task management and performance tracking system that brings planning, execution, reminders, collaboration, and analytics into a single platform. Its main contribution is the combination of task coordination with a transparent performance score, allowing teams to see not only what work is pending, but also how consistently work is being completed.

The proposed structure supports accountability without making the workflow complicated. Managers gain better visibility into progress and workload, while team members receive clear responsibilities and timely reminders. As a result, Beenium can improve productivity, reduce coordination gaps, and create a more disciplined work environment.

In future versions, the platform can be expanded with AI-based task prioritization, workload prediction, mobile app support, and deeper integration with calendars or messaging tools. These additions would make the system more adaptive and more useful for teams working in dynamic environments.

REFERENCES

[1] Sarker, S., Xiao, X., and Beaulieu, T. (2020). “Digital Collaboration and Remote Work Practices in Modern Organizations.” Journal of Information Technology Management, Vol. 31, No. 2, pp. 45–58.

[2] Hamari, J., Koivisto, J., and Sarsa, H. (2014). “Does Gamification Work? — A Literature Review of Empirical Studies on Gamification.” Proceedings of the 47th Hawaii International Conference on System Sciences, Vol. 47, pp. 3025–3034.

[3] Deterding, S., Dixon, D., Khaled, R., and Nacke, L. (2011). “From Game Design Elements to Gamefulness: Defining ‘Gamification’.” Proceedings of the 15th International Academic MindTrek Conference, Vol. 15, pp. 9–15.

[4] Davenport, T. H., and Harris, J. G. (2007). Competing on Analytics: The New Science of Winning. Harvard Business School Press, Boston, MA.

[5] Gagné, M., and Deci, E. L. (2005). “Self-Determination Theory and Work Motivation.” Journal of Organizational Behavior, Vol. 26, No. 4, pp. 331–362.

[6] Kozlowski, S. W. J., and Bell, B. S. (2003). “Work Groups and Teams in Organizations.” Handbook of Psychology, Vol. 12, pp. 333–375.

[7] Locke, E. A., and Latham, G. P. (2002). “Building a Practically Useful Theory of Goal Setting and Task Motivation.” American Psychologist, Vol. 57, No. 9, pp. 705–717.

[8] Malone, T. W., and Crowston, K. (1994). “The Interdisciplinary Study of Coordination.” ACM Computing Surveys, Vol. 26, No. 1, pp. 87–119.