SOCIETY: Jurnal Pengabdian Masyarakat,
Vol. 5, No. 2 (2026): Maret, pp. 308- 313
E-ISSN:2827-878X (Online -Elektronik)

Implementation of a Web-Based Attendance System for Internship Monitoring in a Public Institution

Dimas Arbi Ardian[1], Muhamad Ikhsan Thohir[2]

[1,2] Nusa Putra University

dimasarbiardian@gmail.com[1], ikhsan.thohir@nusaputra.ac.id[2]

ARTICLE INFO

Article history

Received : 13-1-2026

Revised : 15-3-2026

Accepted : 18-3-2026

Keywords

web-based attendance system; internship monitoring; Laravel framework; public institution; digital transformation

ABSTRACT

The increasing number of internship participants in public institutions requires a more effective attendance monitoring system to ensure data accuracy and administrative efficiency. Previously, the Sukabumi City Statistics Office relied on manual attendance records, which limited real-time monitoring and increased the risk of data inconsistencies. This community engagement activity aimed to develop and implement a web-based attendance system to support digital monitoring of internship participants. The system was developed using the Laravel framework and Tailwind CSS following several stages: needs analysis, system design, development, functional testing, and deployment. The implemented system provides features such as user authentication, daily attendance submission, activity reporting, location verification, and attendance recapitulation. The results show that the system improved monitoring efficiency, reduced administrative workload, and increased transparency in attendance management. Administrators can monitor attendance data in real time, while internship participants benefit from a structured digital attendance process. The implementation demonstrates that web-based information systems can effectively support digital transformation in public-sector internship management.

SOCIETY: Jurnal Pengabdian Masyarakat,
Vol. 5, No. 2 (2026): Maret, pp. 308- 313
E-ISSN:2827-878X (Online -Elektronik)

A. INTRODUCTION

Internship and field practice programs serve as an important bridge between academic learning and professional practice. Through these programs, students gain practical experience while institutions benefit from additional human resources that support operational activities. As the number of internship participants continues to increase each year, institutions are required to manage administrative processes more efficiently, particularly attendance monitoring and activity supervision.

The Sukabumi City Statistics Office is a regional government institution responsible for producing official statistical data and supporting evidence-based policy development. In addition to its primary duties, the institution regularly accepts internship and field practice participants from various universities. However, prior to this community engagement activity, attendance monitoring was conducted manually using paper-based records. Manual attendance systems often create several problems, including limited monitoring capability, increased administrative workload, and higher risk of data inconsistency (Sahrul et al., 2016; Satria, 2022).

Recent developments in information technology have enabled the implementation of digital attendance systems that improve efficiency and accuracy in data management. Web-based information systems allow real-time data recording, centralized storage, and easier monitoring by administrators (Laudon & Laudon, 2020). Several studies have demonstrated that web-based systems developed using modern frameworks can significantly improve organizational administrative processes (Mardiana et al., 2024).

Despite these advantages, many public institutions still rely on conventional attendance systems due to limited technological resources or lack of system development initiatives. Therefore, implementing a digital attendance system specifically designed for internship monitoring can provide significant benefits in improving administrative efficiency.

Therefore, the objective of this community engagement activity is to develop and implement a web-based attendance system for internship monitoring at the Sukabumi City Statistics Office in order to improve attendance monitoring efficiency, data accuracy, and administrative transparency.

B. METHODS

This community engagement activity applied a system development and implementation approach to address attendance monitoring problems experienced by the partner institution. The activity was conducted during a five-month internship period using a hybrid working model that combined remote development and periodic on-site coordination meetings at the Sukabumi City Statistics Office.

The implementation process consisted of five main stages:

1. Needs Analysis

   This stage involved discussions with institutional supervisors to identify attendance workflows, user roles, and system requirements. The objective was to ensure that the developed system aligned with the operational needs of the institution.

2. System Design

During this stage, the system architecture, database structure, and user interface were designed. The design emphasized simplicity, usability, and accessibility for both internship participants and administrative users.

3. System Development

The application was developed using the Laravel framework for backend processing and Tailwind CSS for frontend interface design. Key functionalities implemented included user authentication, daily attendance submission, activity reporting, location verification, and attendance recapitulation.

4. System Testing

Functional testing was conducted to ensure that each feature operated correctly. Feedback from supervisors and users was used to refine system performance and interface usability.

5. System Deployment

The final system was deployed on the institution's local server. Administrative users received basic guidance on how to operate the system and monitor attendance data.

The evaluation indicators included system usability, accuracy of attendance data, monitoring efficiency, and administrative workload reduction based on feedback from administrative users.

C. RESULTS AND DISCUSSION

This section presents the outcomes of the community engagement activity and discusses the impact of the implemented system on the partner institution. The results are described based on the stages of implementation and their contributions to solving the identified problems.

1.1. Implementation of the Web-Based Attendance System

The primary outcome of this community engagement activity was the successful development of a web-based attendance system designed to replace the previous manual attendance process. After the system was implemented, administrators reported that attendance monitoring became faster and more organized compared to the previous manual process. The system also enabled centralized storage of attendance records, reducing the risk of data loss and improving transparency in monitoring internship activities.

Figure 1 illustrates the system login interface that allows both internship participants and administrators to access the system using their registered accounts

SOCIETY: Jurnal Pengabdian Masyarakat,
Vol. 5, No. 2 (2026): Maret, pp. 308- 313
E-ISSN:2827-878X (Online -Elektronik)

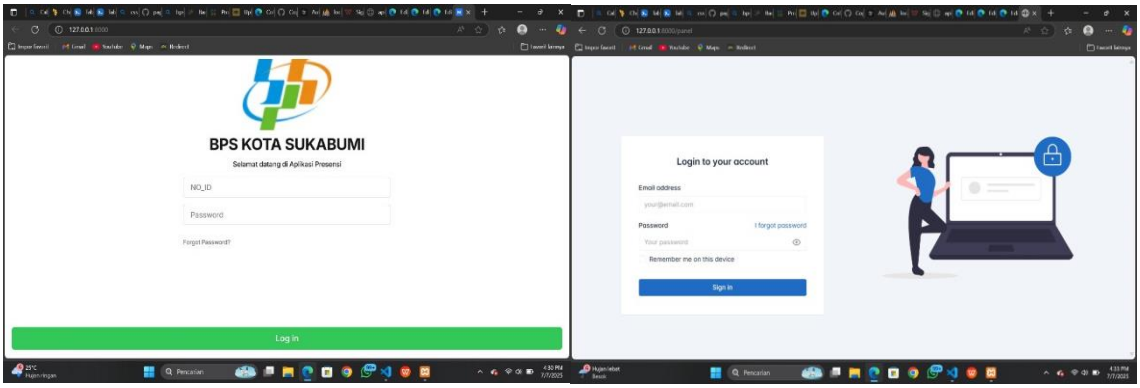

Figure 1. System Login Interface for Users and Administrators

After logging into the system, internship participants can record their attendance and submit a brief report of daily activities. This feature ensures that attendance data and activity documentation are recorded simultaneously.

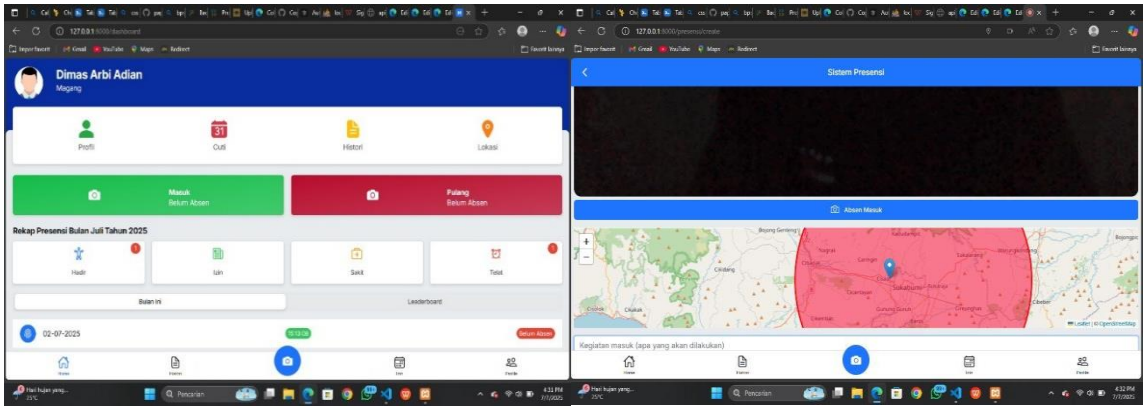

Figure 2. Daily Attendance Submission Interface

1.2. Impact on Attendance Monitoring and Administration

The implementation of the web-based system significantly improved attendance monitoring processes within the institution. Administrators reported that attendance data could be accessed and reviewed more quickly compared to the previous manual system. Additionally, digital records reduced the risk of data loss and errors commonly associated with paper-based documentation.

From the perspective of internship participants, the digital attendance system simplified the reporting process, as attendance could be recorded directly through the system without requiring physical signatures.

SOCIETY: Jurnal Pengabdian Masyarakat,
Vol. 5, No. 2 (2026): Maret, pp. 308- 313
E-ISSN:2827-878X (Online -Elektronik)

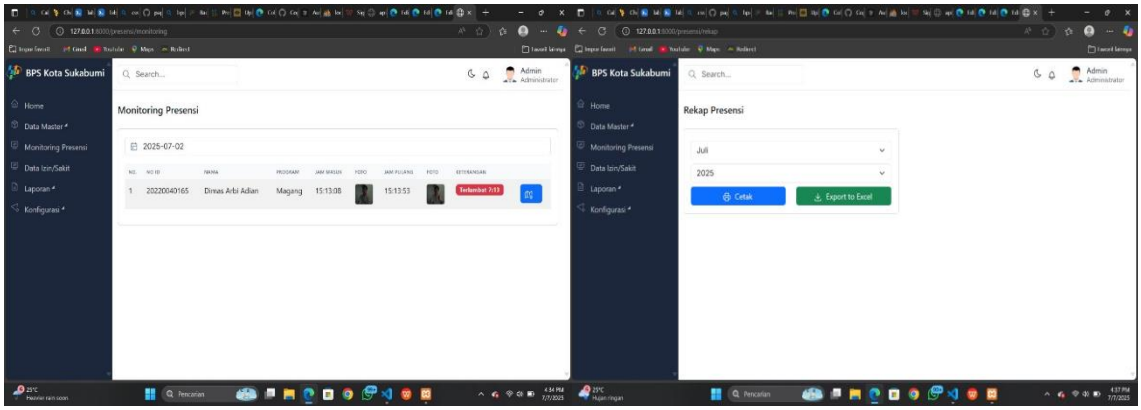

Figure 3. Attendance Monitoring Dashboard

1.3. Discussion

The results indicate that the implementation of a web-based attendance system effectively addressed the administrative challenges identified in the introduction section. By digitizing attendance records, the institution gained improved transparency, faster monitoring capability, and more reliable data management.

These findings are consistent with previous studies indicating that web-based information systems can enhance administrative efficiency and support organizational digital transformation (Wibowo & Pratama, 2021).

However, the current implementation is limited to a local server environment. Future development may include cloud-based deployment, improved security mechanisms, and integration with internship performance evaluation systems.

D. CONCLUSION

The implementation of a web-based attendance system successfully improved attendance monitoring for internship participants at the Sukabumi City Statistics Office. The system enhanced efficiency, transparency, and accuracy in attendance data management while reducing administrative workload.

The digital attendance system also provided a more structured reporting mechanism for internship participants and enabled administrators to monitor attendance data in real time. This activity demonstrates that web-based information systems can play an important role in supporting digital transformation within public sector institutions.

Future development may focus on expanding system scalability, implementing cloud-based infrastructure, and integrating additional features to support internship performance evaluation.

E. ACKNOWLEDGEMENTS

The authors would like to express sincere appreciation to the Sukabumi City Statistics Office for providing support, facilities, and guidance during the implementation of this community engagement activity. Gratitude is also extended to Universitas Nusa Putra for academic supervision and institutional support throughout the internship program.

F. AUTHOR CONTRIBUTIONS

Dimas Arbi Ardian was responsible for conceptualization, system design, software development, data collection, system implementation, and manuscript writing. Muhamad Ikhsan Thohir contributed as the supervisor by providing methodological guidance, academic direction, and critical review of the manuscript to ensure the quality and completeness of the research.

G. REFERENCES

Badan Pusat Statistik. (2024). Profile of Sukabumi City Statistics Office. https://sukabumikota.bps.go.id

Laudon, K. C., & Laudon, J. P. (2020). Management information systems: Managing the digital firm (16th ed.). Pearson Education.

Mardiana, I., Wahyudin, & Junaeti, E. (2024). Development of learning management system with Laravel framework and Tailwind CSS. Multinetics, 10(1), 40–49.

Pressman, R. S., & Maxim, B. R. (2020). Software engineering: A practitioner's approach (9th ed.). McGraw-Hill Education.

Sahrul, F., Safi'ie, M., & Decroly, O. (2016). Implementation of web-based academic information systems using the Laravel framework. Transformasi, 12(1), 46–55.

Satria, S. (2022). Web-based employee attendance data processing system. Palcomtech Repository.

Setiawan, A., & Nugroho, Y. (2019). Implementation of web-based information systems to improve administrative efficiency. Journal of Information Systems Engineering, 4(2), 85–94.

Sommerville, I. (2016). Software engineering (10th ed.). Pearson Education.

Wibowo, A., & Pratama, R. (2021). Digital transformation in public sector organizations: Challenges and opportunities. Journal of Public Sector Innovation, 6(1), 12–21.