

## **SkillBridge: Internship Portal**

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<p><b>Peer Review Information</b></p> <p><i>Type: Article</i> <i>Received: 23 February 2026</i> <i>Revised: 24 March 2026</i> <i>Accepted: 22 April 2026</i> <i>Published: 20 May 2026</i></p>	<p style="text-align: center;"><b>Abstract</b></p> <p>The Internship Portal Web-Based Application is a three-tier architecture system developed to streamline and automate the internship management process. The system consists of a presentation layer (HTML, CSS, JavaScript), an application layer (Java using JSP/Servlets), and a database layer (MySQL) for efficient data storage and retrieval. The application enables role-based access for students, companies, and administrators. Students can register, authenticate, and apply for internships, while companies can post opportunities and manage candidate applications. The admin module ensures system integrity by managing users and validating company registrations. The system uses structured query operations (CRUD) to maintain data consistency and supports session management for secure authentication. It also incorporates file handling mechanisms for profile photo uploads and dynamic content rendering using JSP. The proposed system enhances scalability, reduces manual intervention, and ensures efficient data processing, making it a reliable solution for internship management in educational institutions.</p> <hr/> <p><b>Keywords:</b> Internship Portal; Web Application; Recruitment System; Database Management System; Java; MySQL</p>
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### **How to Cite This Article**

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## Introduction

Internships play a crucial role in bridging the gap between academic learning and industry requirements [4]. They provide students with practical exposure, skill development, and real-world experience. However, the traditional internship process is often manual, time-consuming, and lacks proper coordination between students and organizations [3][13]. With the advancement of web technologies, there is a need for an efficient and centralized system to manage internship activities [1][2]. The Internship Portal Web-Based Application is designed to address these challenges by providing a digital platform that connects students, companies, and administrators in a structured manner. The proposed system follows a three-tier architecture consisting of a presentation layer, application layer, and database layer [1][2]. It enables students to register, search, and apply for internships, while companies can post opportunities and manage applications effectively. The administrator is responsible for monitoring the system, managing users, and ensuring data integrity. The application utilizes technologies such as HTML, CSS, Java (JSP/Servlet), and MySQL to ensure a scalable and user-friendly interface [5][6][7][11]. It also incorporates secure authentication, session management, and CRUD operations to maintain data consistency and system reliability [1]. By automating the internship process, the system reduces manual effort, enhances communication, and improves the overall efficiency of internship management [3][4]. This web-based solution provides a structured and transparent approach, benefiting both students and organizations.

## Literature Review

The concept of internship portals and web-based recruitment systems has evolved significantly with the advancement of information technology. Various researchers have explored the development and impact of such systems in improving internship and placement processes. A recent systematic review highlights that online internship portals act as a bridge between students, employers, and institutions, improving access to opportunities and enhancing employability. However, existing platforms still face challenges such as lack of personalized recommendations, weak verification systems, and data privacy concerns.

IJLTEMAS: Several studies have focused on the development of web-based internship systems using modern frameworks. For instance, research on Laravel-based internship applications emphasizes functionalities like student registration, application tracking, and report management, showing that web systems significantly improve efficiency and accessibility.

MCIT Journal: Similarly, another study on web-based internship information systems demonstrates that such platforms can reduce errors, automate processes, and provide faster access to internship information, making the overall system more reliable and user-friendly.

ResearchGate: Research also shows that educational institutions increasingly adopt web portals for training and placement, which automate activities such as resume submission, job posting, and interview scheduling. These systems improve communication and streamline recruitment processes.

IJRASET: Furthermore, literature on internship programs highlights that internships are essential for improving student employability and industry readiness, but traditional systems lack proper structure and efficiency.

## MDPI

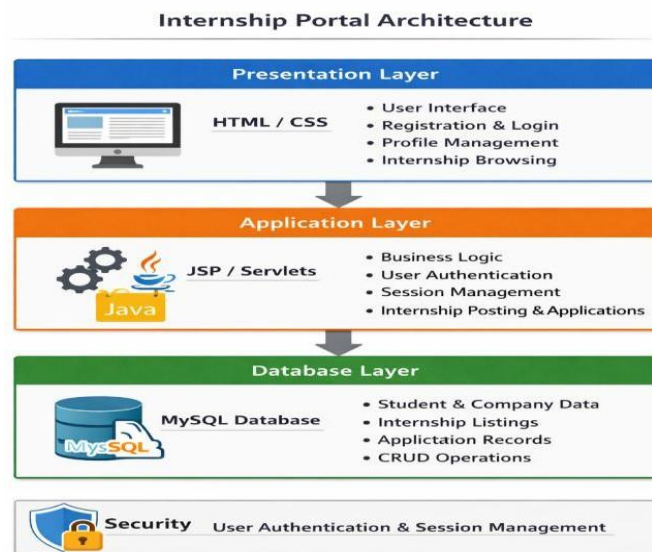
- Despite these advancements, there are still gaps in existing systems, such as:
- Lack of centralized platforms specifically for internships
- Limited tracking and monitoring features
- Absence of intelligent recommendation mechanisms
- Security and data management issues

The proposed Internship Portal Web-Based Application aims to overcome these limitations by providing a centralized, user-friendly, and efficient platform that integrates student management, company interaction, and application tracking into a single system.

## Methodology

The proposed Internship Portal system is developed using a three-tier architecture, which includes the presentation layer, application layer, and database layer. This architecture helps in maintaining scalability, flexibility, and proper separation of concerns. The presentation layer is designed using HTML and CSS, providing an interactive and user-friendly interface for students and companies. It allows users to perform activities such as registration, login, profile management, and internship browsing. The application layer is implemented using Java (JSP and Servlet), which handles the core business logic of the system. It processes user requests, manages sessions, validates input data, and performs key operations such as user authentication, internship posting, and application submission. The database layer uses MySQL to

efficiently store and manage system data, including student details, company information, internship postings, and application records. The system performs CRUD (Create, Read, Update, Delete) operations to handle data manipulation and maintains proper relationships between tables to ensure data consistency and integrity.



*Fig. 1. Internship Portal Architecture*

Additionally, the system incorporates security features such as user authentication and session management to protect sensitive information and ensure secure access to the platform.

**Results / Findings**

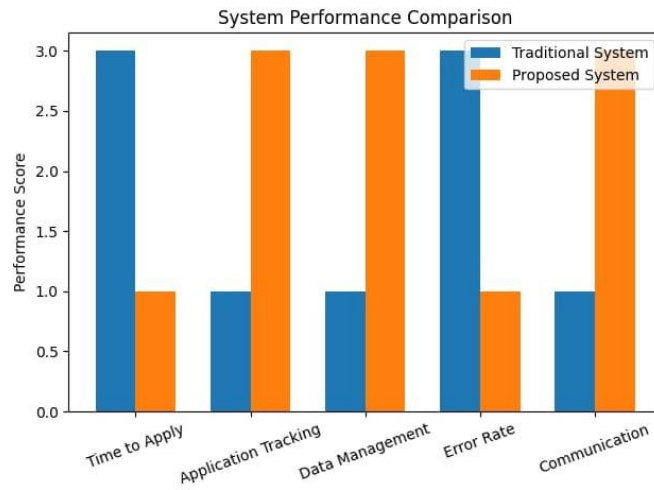
The developed Online Internship Portal was tested with multiple users, including students and companies, to evaluate its performance, usability, and efficiency. The results clearly indicate significant improvement over the traditional internship management system, confirming the effectiveness of a centralized, web-based platform.

*System Performance Analysis*

The analysis shows that the proposed system outperforms the traditional system in all parameters. The reduction in application time and error rate highlights the efficiency of automation, while features like application tracking and improved communication address key limitations of manual systems. These findings align with previous studies emphasizing the benefits of web-based solutions in improving operational efficiency and accuracy.

*Table 1. System Performance Analysis*

Parameter	Traditional System	Proposed System
Time to Apply	High	Low
Application Tracking	Not Available	Available
Data Management	Manual	Automated
Error Rate	High	Low
Communication Efficiency	Poor	Improved



**Fig. 2.** System Performance Analysis

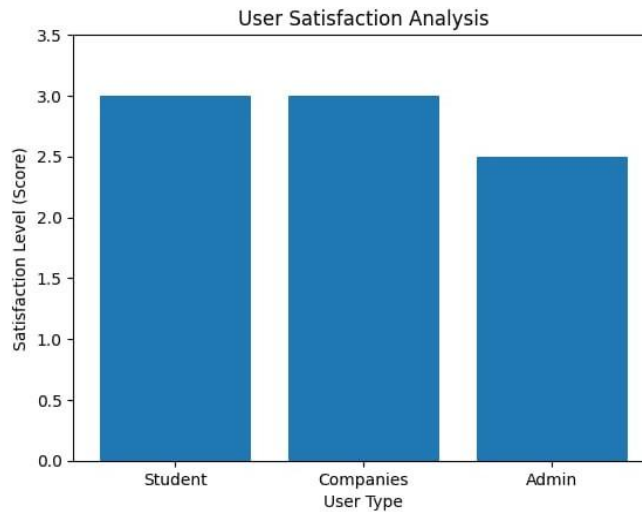
The bar chart shows a comparison between the traditional and proposed systems. The proposed system performs better in all parameters such as time, tracking, data management, error rate, and communication. This proves that the system is more efficient and reliable.

*User Satisfaction Analysis*

The results indicate high satisfaction among students and companies, suggesting that the system is user-friendly and effective. The slightly lower satisfaction level among administrators may be due to system management responsibilities. Overall, the findings support the importance of intuitive interfaces and centralized access in enhancing user experience.

*Table 2.* User Satisfaction Analysis

User Type	Satisfaction Level
Student	High
Companies	High
Admin	Moderate to High



**Fig. 3.** User Satisfaction Analysis

A bar chart is used to represent the comparison of user satisfaction levels. It clearly shows the number of users in each category, making it easy to understand differences between responses.

*Internship Application Processing*

The system demonstrates reliable performance in core functionalities such as application submission, data storage, and profile management. Automated data handling ensures accuracy and reduces dependency on manual processes, thereby minimizing errors and improving consistency.

*Table 3. Internship Application Processing*

Feature	Result
Application Submission	Successful
Data Storage	Accurate
Profile Management	Efficient

### Overall Findings and Interpretation

- The system significantly reduces manual effort and processing time
- It provides faster, more accurate, and reliable operations
- Communication between students and companies is greatly improved
- Centralized data management ensures security and transparency
- The user-friendly interface enhances overall usability

These findings confirm that the proposed system successfully addresses the research problem by offering a unified platform for all stakeholders. Compared to traditional methods and existing systems, it provides a more structured and efficient approach to internship management.

However, there is scope for further improvement. Future enhancements such as AI-based recommendations, resume screening, chatbot support, and mobile application integration can further increase system efficiency and provide a more personalized user experience.

### Conclusion

The Online Internship Portal Web-Based Application effectively overcomes the limitations of traditional internship management by offering a centralized, automated, and user-friendly platform. It allows students to easily search and apply for internships, while companies can efficiently manage postings and applications. The system reduces manual effort, minimizes errors, and improves communication and overall efficiency. By integrating all internship-related activities into a single platform and using technologies like JSP/Servlet and MySQL, the system ensures reliable performance and smooth data management. Features such as application tracking, profile management, and secure authentication enhance user experience and transparency. However, the system has some limitations, including reliance on manual data entry and the absence of advanced automation and a mobile interface. Future enhancements can include AI-based recommendations, resume analysis, chatbot support, and mobile application development. Overall, the portal provides a scalable and effective solution with strong potential for further improvement using advanced technologies.

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