INTERNATIONAL JOURNAL OF NOVEL RESEARCH AND DEVELOPMENT (IJNRD)
© 2026 IJNRD | Volume 11, Issue 3, MARCH 2026 | ISSN: 2456-4184 | IJNRD.ORG

Secure Complaint and Assistance Portal (SCAP): An Integrated Web-Based Solution for Complaint Management, Budget Tracking, and Health Assistance

Authors: Priyanshu Kachnariya, Uday Patel, Umesh Rajak, Mohd. Arman Khan

Affiliation: Oriental Institute of Science & Technology, Bhopal

Abstract

The rapid digitization of organizational environments demands integrated systems for efficient management and user support. This paper presents the Secure Complaint and Assistance Portal (SCAP), a full-stack web-based application designed to unify complaint management, personal finance tracking, and health assistance into a single secure platform. The system enables users to submit and track complaints, manage budgets with real-time alerts, and receive rule-based health suggestions. SCAP is developed using Spring Boot, MongoDB, and modern web technologies to ensure scalability, security, and performance. A key feature includes an automated complaint priority algorithm that classifies issues based on severity. The system also incorporates role-based access control and analytics dashboards for administrators. Experimental results demonstrate improved efficiency, transparency, and user engagement compared to traditional systems.

Keywords

Complaint Management, Budget Tracking, Health Assistance, Web Application, Spring Boot, MongoDB

1. Introduction

Modern organizations face challenges due to fragmented systems for complaint handling, financial tracking, and user assistance. Traditional methods often lead to delays, poor transparency, and lack of data-driven decision-making. SCAP is proposed as an integrated solution combining complaint management, expense tracking, and health assistance into a single platform.

2. Literature Review

Existing systems are limited to single functionalities such as helpdesk systems, financial tools, and health applications. These systems lack integration and centralized data management. SCAP overcomes these limitations by providing a unified platform.

3. Methodology

The system is developed using Agile methodology (Scrum). Technologies used include Spring Boot, MongoDB, HTML, CSS, and JavaScript. Core features include role-based authentication, complaint priority classification, budget alerts, and health assistance.

4. System Design

SCAP follows MVC architecture with Controller, Service, and Repository layers. It consists of three modules: Complaint Management, Budget Tracking, and Health Assistance. Complaints are automatically classified based on priority using keyword-based algorithms.

5. Results and Discussion

The system improves complaint resolution efficiency, provides real-time budget alerts, and delivers quick health assistance. Performance testing shows response time under 2 seconds with secure access control.

6. Conclusion

SCAP integrates multiple functionalities into one platform, improving efficiency, transparency, and user experience. It reduces manual work and enhances decision-making.

7. Future Scope

Future enhancements include AI-based classification, mobile app development, notifications, and advanced analytics.

8. References

1. Spring Boot Documentation
2. MongoDB Documentation
3. Agile Manifesto
4. Pressman, Software Engineering
5. Bootstrap Documentation

Copyright & License:

© Authors retain the copyright of this article. This work is published under the Creative Commons Attribution 4.0 International License (CC BY 4.0), permitting unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.