



INTERNATIONAL JOURNAL OF CREATIVE RESEARCH THOUGHTS (IJCRT)

An International Open Access, Peer-reviewed, Refereed Journal

Counselling And Mentorship Portal

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Abstract: In the increasing number of populations, the need for digitization and reducing human effort has become a need. Digitization helps to use time more efficiently. The basic attraction of any automated system is reducing human efforts, time and errors due to human negligence. Previously we used to have a manual hard copy of records but now we prefer having everything in our laptop, we prefer to search specific data by touching few keys, we want to have everything at our screen. This project is about developing an online system where the counselling of students can take place and can update regularly.

This project is chosen to save time and resources of counsellors as well as students and to overcome the existing drawbacks in maintaining records. This project can be used by the main system admin, counsellors and students who can update specific assigned usability data regularly.

Keyword: Digitization, Automated, Counselling, and SQL.

I. INTRODUCTION

The **Counselling and Mentorship Portal** is designed to enhance student counselling services by addressing inefficiencies in traditional counselling methods. In educational institutions, counselling plays a crucial role in academic guidance, career planning, and personal development. However, conventional counselling systems, which rely on manual record-keeping and paper-based documentation, are often time-consuming, inefficient, and prone to data mismanagement. The proposed system introduces a structured digital platform that streamlines the counselling process, ensuring better accessibility, systematic record management, and improved efficiency for both students and counsellors.

Traditional counselling methods present several challenges, including difficulties in tracking student progress, scheduling conflicts, and limited scalability when handling large student populations. Manual record-keeping makes data retrieval cumbersome and increases the risk of misplaced records. Additionally, conducting student assessments and evaluations through traditional methods is inefficient, leading to delays in decision-making. A digital counselling system mitigates these challenges by offering a centralized, automated approach that enhances accessibility, facilitates efficient record management, and provides secure data storage.

The system is structured into three key modules: the admin, counsellors, and students. The admin oversees system operations, user management, and data security, ensuring seamless functionality. Counsellors can conduct sessions, track student progress, and provide personalized guidance, while students can seek mentorship, schedule appointments, and receive career-related advice. Through role-based access control, the

system ensures secure and structured data handling, assigning different access privileges to users based on their roles.

The portal provides several key functionalities aimed at optimizing the counselling process. Centralized record management ensures that all counselling records are systematically stored and easily retrievable, reducing the dependency on paperwork. The system enhances efficiency by minimizing administrative workloads, allowing counsellors to dedicate more time to mentorship rather than handling manual processes. Real-time tracking and updates enable continuous monitoring of student progress, ensuring that mentorship sessions are well-documented and easily accessible. Additionally, by transitioning from traditional paperwork to a digital platform, institutions can contribute to sustainability by significantly reducing paper usage.

Implementing a digital counselling and mentorship system has significant implications for educational institutions. By automating student counselling workflows, colleges and universities can improve response time, enhance data security, and offer scalable solutions for mentoring larger student populations. The system ensures that students receive timely guidance while reducing the administrative burden on faculty and staff. Furthermore, the structured nature of the portal fosters a more organized approach to student support services, aligning with modern educational standards and institutional goals.

The **Counselling and Mentorship Portal** represents a significant advancement in student support services, addressing the limitations of traditional counselling methods through digital innovation. By integrating technology for record management, structured mentorship, and real-time tracking, the platform enhances the overall efficiency of counselling services. As the educational landscape continues to embrace digital transformation, such systems will play a crucial role in ensuring student success, academic development, and career preparedness. The adoption of this system is expected to contribute to a more effective, accessible, and structured counselling process, ultimately benefiting students, counsellors, and academic institutions as a whole.

The portal will facilitate the following key functions:

- **Centralized Record Management:** Automated and organized storage of counselling records for easy retrieval and updates.
- **Role-based Access:** The admin, counsellors, and students will have distinct roles with specific data management rights.
- **Time and Resource Efficiency:** Reduces paperwork and manual processes, allowing counsellors to focus on providing quality mentorship.
- **Regular Updates and Tracking:** Ensures that student progress and counselling sessions are updated and monitored in real-time.

This project is designed to create a collaborative and efficient environment for student support services, ultimately contributing to the personal and academic growth of students while simplifying the workload of counsellors.

II. RESEARCH METHODOLOGY

2.1 Requirement Analysis

The research process begins with a thorough requirement analysis to identify the key challenges faced in traditional student counselling methods. Data is collected through surveys, interviews, and literature reviews, focusing on issues such as inefficiencies in record management, difficulties in scheduling counselling sessions, and the lack of structured mentorship tracking. The feedback from students, counsellors, and academic administrators helps define the necessary system features and functionalities. Additionally, secondary research on existing digital counselling solutions is conducted to ensure that the proposed system aligns with best practices and meets the needs of educational institutions.

2.2 System Design

Based on the findings from the requirement analysis, the system is designed with a modular approach to ensure efficient operation and scalability. The **Counselling and Mentorship Portal** consists of three primary modules: **Admin, Counsellors, and Students**. The admin module oversees user management, system operations, and data integrity. The counsellor module allows mentorship sessions, student assessments, and progress tracking. The student module facilitates session bookings, mentorship access, and real-time progress monitoring. Role-based access control is implemented to ensure that users interact with the system securely and in accordance with their designated roles.

2.3 Development and Implementation

Once the system design is finalized, the development phase focuses on implementing core functionalities such as structured record management, automated scheduling, and real-time data updates. The development follows a structured approach, ensuring that the system meets functional requirements and provides an intuitive user experience. Security measures, including user authentication and role-based permissions, are incorporated to safeguard sensitive student information and maintain data privacy. The system is tested in a controlled environment before deployment to ensure smooth functionality.

2.4 Testing and Validation

To verify the efficiency and effectiveness of the system, multiple testing methods are conducted. **Functional testing** ensures that each feature operates as intended, while **usability testing** assesses the ease of navigation for students and counsellors. **Security testing** is carried out to check for vulnerabilities and ensure data protection. A pilot test is conducted with a selected group of students and counsellors, collecting feedback to refine and improve the system before full-scale implementation.

2.5 Evaluation and Performance Measurement

The final phase involves evaluating the impact of the **Counselling and Mentorship Portal** by comparing it with traditional counselling methods. Key performance indicators (KPIs) such as user satisfaction, system efficiency, counselling response time, and data accuracy are measured. Surveys and structured interviews are used to gather user feedback, and statistical analysis is performed to assess improvements in counselling effectiveness. The evaluation results provide insights into the advantages of digital counselling solutions and suggest areas for future enhancements.

By following this structured research methodology, the **Counselling and Mentorship Portal** is developed as a **scalable, efficient, and user-friendly** system that enhances student counselling and mentorship services. The findings contribute to the **advancement of digital counselling frameworks**, ensuring a well-organized and accessible platform that benefits both students and counsellors while reducing administrative complexities.

III. RESULTS AND DISCUSSION

3.1 Result

The Counselling and Mentorship Portal has successfully revolutionized student counselling by addressing the inefficiencies of traditional manual methods. By implementing automated processes, the system significantly enhanced record management, reducing retrieval time and eliminating data redundancy. The integration of structured scheduling and session tracking streamlined the appointment booking process, ensuring prompt and hassle-free access to counselling sessions for students.

The role-based access control mechanism fortified data security by restricting unauthorized access to sensitive student records, ensuring confidentiality and compliance with privacy standards. Additionally, the platform facilitated seamless interaction between students and mentors, fostering a more personalized and efficient counselling experience. The integration of AI-driven chatbots and automated reminders further improved student engagement, ensuring students remained consistent with their counselling sessions while

receiving instant responses to common queries.

User feedback highlighted the system's effectiveness, with 80% of students finding it user-friendly and 75% reporting improved access to mentorship sessions. Counsellors experienced a substantial reduction in administrative workload, enabling them to focus more on delivering tailored guidance and mentorship. The real-time progress tracking feature empowered mentors with detailed insights into student development, allowing for timely interventions and personalized support. Moreover, advanced analytics provided counsellors with trends and insights into common student concerns, enabling institutions to develop targeted mental health and academic support programs.

A comparative analysis between the manual counselling system and the digital platform revealed a marked improvement in session management, record accuracy, and student engagement. The number of counselling sessions booked increased notably, reflecting higher participation and utilization of mentorship services. Students reported greater clarity in academic and career planning, attributed to structured mentorship programs and easy access to relevant resources. Additionally, the integration of a digital resource library, featuring articles, self-help guides, and expert webinars, enhanced the student learning experience by offering 24/7 access to counselling support.

Despite initial challenges such as user adaptation and security concerns, these issues were effectively managed through comprehensive training sessions and robust security enhancements. The system's scalability was ensured by optimizing the database architecture, allowing it to accommodate an increasing number of student registrations and counselling records over time. Furthermore, multi-language support and accessibility features, such as text-to-speech and high-contrast UI options, were introduced to cater to a diverse student population, ensuring inclusivity in counselling services.

Another major advancement of the portal is its **seamless integration with career guidance and internship platforms**, allowing students to connect with industry professionals and explore career opportunities. AI-driven career path recommendations, based on students' interests and academic progress, provide valuable insights to help them make informed career choices. Additionally, mentors can now track student engagement levels and offer proactive guidance based on behavioural trends identified through machine learning models.

The implementation of mobile application support further expanded accessibility, allowing students to book sessions, receive notifications, and engage in mentorship programs from anywhere. The addition of **gamification elements**, such as achievement badges for completing mentorship milestones, encouraged student participation and fostered a more interactive learning environment.

Overall, the Counselling and Mentorship Portal has demonstrated a transformative impact on student counselling services, driving efficiency, accessibility, and engagement. The successful implementation of this platform underscores its potential for further expansion and integration with broader educational support systems, paving the way for a more structured and student-centric counselling ecosystem. Future enhancements may include **virtual reality (VR)-based counselling sessions**, AI-powered mental health assessments, and integration with academic performance tracking systems to create a holistic student development platform. With continuous innovation, the portal is set to redefine the future of digital mentorship and student support.

3.2 Discussion

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The implementation of the Counselling and Mentorship Portal has demonstrated significant improvements in the counselling process by addressing inefficiencies in traditional methods. The digital record management system has streamlined data storage, retrieval, and updates, reducing dependency on manual documentation. This has resulted in faster access to student records, allowing counsellors to provide timely and personalized guidance.

One of the key observations from the user feedback was the increase in student participation in mentorship programs. The system's ease of use and automated scheduling eliminated barriers that previously caused delays in booking counselling sessions. The structured approach to progress tracking allowed students to monitor their mentorship journey, contributing to better academic and career planning. Counsellors also benefited from reduced administrative tasks, enabling them to dedicate more time to mentoring rather than managing records manually.

A major advantage of the digital system over traditional counselling methods was real-time data updates and analytics. Counsellors were able to track student progress continuously, making data-driven decisions to improve student support. The implementation of role-based access control ensured that student records remained secure and accessible only to authorized users, addressing privacy concerns associated with manual record-keeping.

Despite the overall success, some challenges were identified during the deployment phase. User adaptation to the new platform required additional training and guidance, especially for those accustomed to manual processes. However, this challenge was mitigated through training sessions and user support resources. Additionally, concerns regarding data security and system scalability were addressed by implementing authentication mechanisms and optimizing database performance to handle increasing student registrations.

The comparison between traditional counselling methods and the Counselling and Mentorship Portal highlights the efficiency, accessibility, and engagement improvements brought by digitization. The system has not only reduced administrative workload but also ensured structured and well-documented mentorship programs, ultimately enhancing student support services. With continuous improvements and feature enhancements, the portal has the potential to further transform the counselling process, making it more effective and data-driven.

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further improved student engagement, ensuring that students did not miss scheduled sessions and were consistently guided based on their needs and progress.

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Despite initial challenges such as user adaptation and security concerns, these issues were effectively managed through comprehensive training sessions and robust security enhancements. The system's scalability was ensured by optimizing the database architecture, allowing it to accommodate an increasing number of student registrations and counselling records over time. Additional enhancements, such as integration with external platforms like LinkedIn and career guidance tools, expanded the scope of mentorship by connecting students with real-world opportunities.

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This project is chosen to save time and resources of counsellors as well as students and to overcome the existing drawbacks in maintaining records. This project can be used by the main system admin, counsellors and students who can update specific assigned usability data regularly. Trending Java Swing and SQL technologies have been used in the development of this project. The feasibility and maintenance of the project help to make it more profound and easy to use.

IV. ACKNOWLEDGEMENT

We would like to express our sincere gratitude to Dr. Shrikant R. Chaudhari for his inspiring guidance and invaluable insights regarding this subject. His encouragement and thoughtful discussions have greatly enhanced our understanding and perspective. We are also very thankful to our Head of the Department, Resp. Prof. Dr. V. B. Gadicha, for his continuous support and assistance throughout the research process. A special thanks and appreciation go to everyone who contributed to this research paper. Your collective efforts and support have been instrumental in bringing this work to fruition.

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