

MindCare: Design and Development of a Web-Based Individual Inventory Service and Counseling Support System

Mary Gilianne R. Peralta¹ and Rosmond A. Ramirez^{2*}

¹*De La Salle Medical and Health Sciences Institute*

²*San Beda College Alabang*

*ramirezrosmond@gmail.com

Date Submitted:
April 18, 2026

Date Accepted:
May 15, 2026

Date Published:
June 06, 2026

DOI:
10.5281/zenodo.20572029

ABSTRACT

The Individual Inventory Service (IIS) is a fundamental component of guidance programs, but manual record-keeping may limit confidentiality, accessibility, and continuity of student records. This study designed and developed MindCare, a web-based IIS and counseling support system intended to digitalize student records, document counseling activities, and facilitate appointment scheduling. A developmental research design was used through four phases: needs analysis, system design, system development, and expert validation. The system was developed using PHP, JavaScript, HTML/CSS, Bootstrap, and MySQL in a localhost testing environment. MindCare provides secure role-based access, electronic IIS forms, counseling request management, session documentation, record monitoring, and report generation. Two experts, one in guidance and

counseling and one in information technology, evaluated the design using a five-point validation instrument. Both experts rated the system as Highly Acceptable across relevance to guidance services, appropriateness of features, data privacy measures, structure and organization, and feasibility of implementation, yielding an overall mean of 5.00. The findings indicate that MindCare is a relevant and feasible design for improving guidance-service record management and access. Pilot implementation and user-based usability evaluation remain necessary before institutional deployment.

Keywords: *appointment scheduling, counseling documentation system, guidance and counseling, individual inventory service, student record management, web-based system*

INTRODUCTION

Individual Inventory Service (IIS) supports guidance and counseling programs by organizing information that contributes to a holistic understanding of each student's academic, personal, and psychosocial development. Individual inventory records provide a foundation for other guidance services, including counseling, placement, referral, and follow-up activities (Villar, 2007; University of Southern Philippines Foundation, n.d.).

Despite the importance of student records, manual record-keeping remains vulnerable to human error, inefficient retrieval, inconsistent documentation, and loss or damage. These limitations may delay decision-making and reduce the continuity of guidance support when counselors transition or students move between programs (Ambrocio, 2024; Quilla et al., 2024). Web-based information systems can address these concerns by organizing student data, improving access, and supporting more consistent documentation (Ngoc, 2024).

The digitalization of guidance records also requires careful attention to privacy and confidentiality. The Philippine Data Privacy Act of 2012 requires the protection of personal and sensitive information through

reasonable safeguards (Republic Act No. 10173, 2012). In counseling contexts, record-keeping practices must also protect client trust and restrict access to authorized users.

This study responded to the need for a guidance-specific platform that integrates IIS records with counseling support. It aimed to identify challenges in existing IIS practices, design a digital student-record management system, develop counseling documentation and appointment-scheduling features, examine alignment with confidentiality, accessibility, and continuity principles, and validate the system design through expert review.

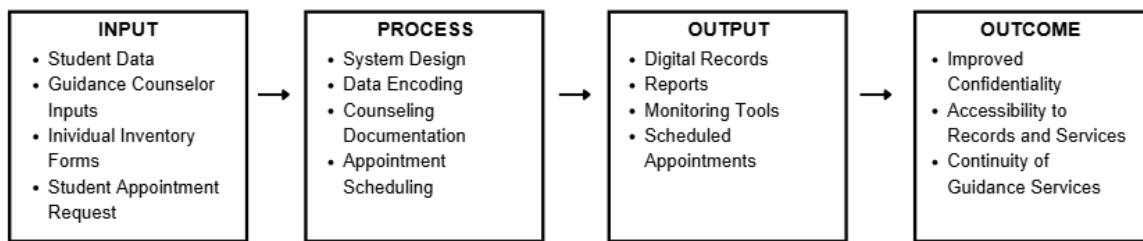


Figure 1. *Input-Process-Output-Outcome Framework of the MindCare System*

Figure 1 presents the Input-Process-Output-Outcome framework. Student data, guidance-counselor inputs, IIS forms, and appointment requests are processed through system design, data encoding, counseling documentation, and appointment scheduling. The system produces digital records, reports, monitoring tools, and scheduled appointments, with the intended outcomes of improved confidentiality, accessibility, and continuity of guidance services.

Literature Review

Individual Inventory Service and Student Support

Individual inventory records help guidance offices develop a complete profile of learners and plan responsive support services. When student information is organized and retrievable, counselors can coordinate interventions and maintain continuity across counseling, interview, and follow-up processes. Guidance-specific systems are therefore valuable when they combine record management with service-delivery functions (Balmores et al., 2025).

Digital Record Management in Educational Settings

Digital information systems can improve the organization, accessibility, and consistency of educational records. Manual systems may be inefficient and prone to retrieval delays, inconsistencies, or record loss, whereas structured databases can support faster access and data-driven decision-making (Ambrocio, 2024; Mijac et al., 2024; Quilla et al., 2024). For guidance offices, the value of digitalization lies not only in storage but also in the ability to monitor requests, document sessions, and produce reports.

Confidentiality and Data Privacy

Digital student-record systems must protect sensitive information. Republic Act No. 10173 (2012) requires safeguards for personal and sensitive data, while professional guidance and counseling practice requires restricted access and responsible record handling. A guidance system must therefore incorporate authentication, role-based permissions, controlled viewing and editing, input validation, and secure processing of records.

Digital Access to Counseling Support

Web-based and digitally mediated platforms can improve access to support services by reducing administrative barriers and allowing students to request assistance more conveniently. Research on digital counseling environments and telehealth indicates that technology can support access to counseling and mental-health services when confidentiality and service quality are appropriately addressed (Nwokedi et al., 2025; Paalimaki-Paakki et al., 2022).

METHODS

Research Design

The study employed a developmental research design focused on the design, development, and design-level validation of a web-based IIS and counseling support system. Actual institutional implementation, end-user usability testing, and outcome evaluation were outside the scope of the study.

Needs Analysis

The needs analysis was based on a review of related literature and professional observation in guidance practice. The identified challenges included manual record-keeping, limited accessibility, confidentiality concerns, and discontinuity of records during counselor transitions or student-program changes. These needs provided the basis for defining the system requirements.

System Design

The system was designed for two primary user groups: students and counselors or administrators. Students can create accounts, complete digital IIS forms, submit requests for counseling or interviews, and monitor request status. Counselors and administrators can review requests, approve or decline requests, document sessions, manage student records, monitor histories, and generate reports.

The workflow consists of creating a student record, submitting a request, processing the request, conducting and documenting counseling or interviews, managing records with timestamps and status codes, and generating reports for documentation or audit purposes.

System Development

MindCare was developed using PHP and JavaScript for application logic and interactivity, HTML/CSS and Bootstrap for the front-end interface, MySQL for structured data storage, and a localhost XAMPP server during the development and testing phases. The database was designed to store student information, counseling requests, request status, counselor records, session documentation, and timestamps.

Expert Validation

The proposed system underwent design-level validation by two field experts: one guidance and counseling specialist and one information technology specialist. A structured review form using a five-point scale was used to evaluate relevance to guidance services, appropriateness of system features, data privacy measures, system structure and organization, and feasibility of implementation.

Ethical Consideration

The system design considered confidentiality, data privacy, user consent, and data security. Counseling records and personal information were intended to be accessible only to authorized users. Authentication, role-based access control, input validation, secure form processing, and controlled viewing and editing of records were incorporated as protective measures.

RESULTS AND DISCUSSION

System Architecture and Workflow

MindCare was designed as a web-based application with role-based access and a centralized database. Students and counselors access the system through a web browser. Front-end forms and dashboards transmit data to the PHP application server, which validates and processes requests before storing or retrieving records from the MySQL database.

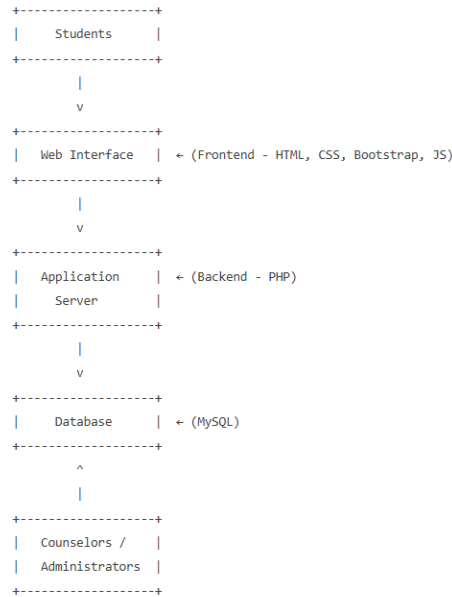


Figure 2. *MindCare System Architecture*

Database Design

The relational database organizes the major entities required for the IIS and counseling workflow. Student records contain personal and academic information. Counselor accounts include role information. Request records store counseling or interview type, status, and submission or update dates. Session records link requests to counselors and document the type, remarks, and date of each session.

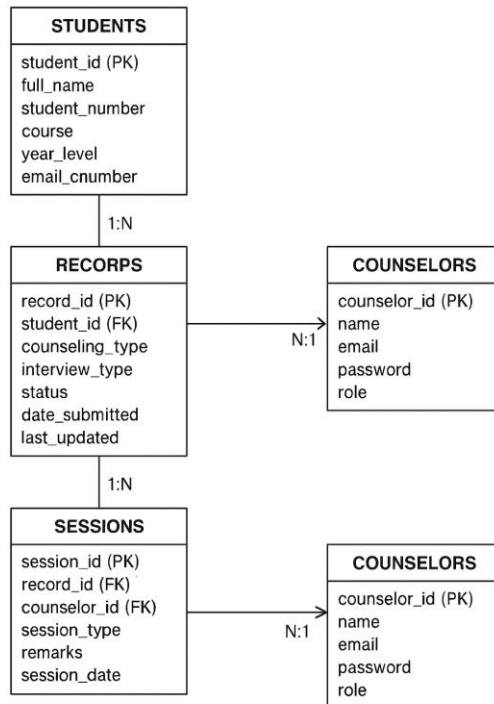
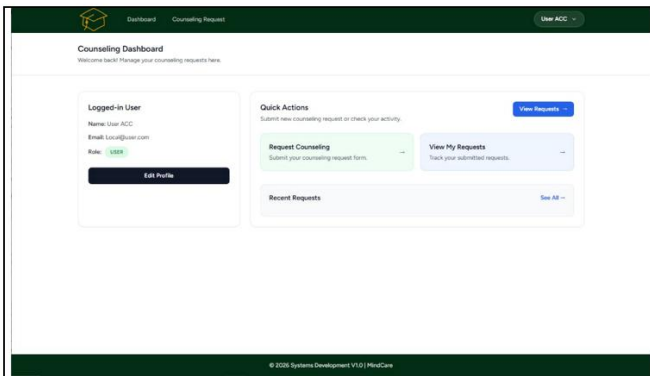


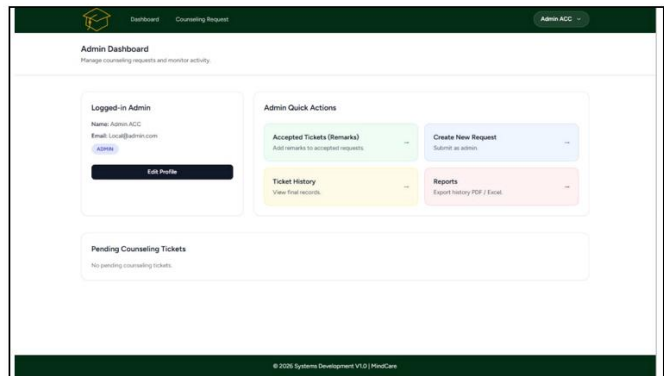
Figure 3. *Entity Relationship Diagram of the MindCare System*

System Features

System Feature	Purpose
Authentication and role-based access	Provides secure login and separates student, counselor, and administrator permissions.
Student record module	Stores personal, academic, parent or guardian, contact, and optional attachment information.
Counseling request module	Allows students to submit counseling or interview requests and track their status.
Request monitoring and management	Allows authorized users to search, filter, approve, reject, update, and review requests.
Counseling documentation	Supports intake, routine, counseling, and exit-interview documentation.
Reporting module	Generates individual counseling reports and supports export functions for documentation and audit needs.



A Student Dashboard



B Administrator Dashboard

C Counseling Request Form

Name	Student #	Course	Actions
[Redacted]	[Redacted]	BSIT - 4th Year	View Details Individual Report
[Redacted]	[Redacted]	BSIT - 3rd Year	View Details Individual Report
[Redacted]	[Redacted]	BSIT - 1st Year	View Details Individual Report
[Redacted]	[Redacted]	BSIT - 3rd Year	View Details Individual Report
[Redacted]	[Redacted]	BSIT - 1st Year	View Details Individual Report
[Redacted]	[Redacted]	BSIT - 1st Year	View Details Individual Report
[Redacted]	[Redacted]	BSCS - 2nd Year	View Details Individual Report
[Redacted]	[Redacted]	BSIT - 2nd Year	View Details Individual Report
[Redacted]	[Redacted]	BSIS - 1st Year	View Details Individual Report

D Report View

Figure 4. Selected MindCare Interface Screens: Student Dashboard, Administrator Dashboard, Counseling Request Form, and Report View

The selected interface screens demonstrate the system's user-centered design. Students can complete records and submit counseling requests, while authorized personnel can review tickets, monitor histories, and prepare reports. These functions support a more organized workflow than fragmented manual documentation.

Data Security Measures

Security Measure	Intended Protection
Password protection	Requires authorized credentials before users can access system functions.
Role-based permissions	Restricts access according to student, counselor, or administrator roles.
Data encryption	Protects sensitive data, including user credentials, from unauthorized use.
Input validation and secure processing	Reduces invalid or malicious submissions and supports safe form handling.
Controlled record viewing and editing	Limits access to counseling records and prevents students from viewing other students' data.

The security design addresses confidentiality, integrity, and availability. While the source manuscript identifies the intended safeguards, institutional deployment should be preceded by security testing, documented access-control rules, and review of operational data-retention procedures.

Expert Validation of the System Design

Table 3. *Profile of Expert Validators*

Validator	Area of Expertise	Years of Experience	Affiliation
Expert 1	Guidance and Counseling	13 years	San Beda College Alabang
Expert 2	Information Technology	15 years	San Beda College Alabang

Table 4. *Summary of Expert Validation Results*

Criterion	Expert 1	Expert 2	Mean	Interpretation
Relevance to guidance services	5	5	5.00	Highly Acceptable
Appropriateness of system features	5	5	5.00	Highly Acceptable
Data privacy measures	5	5	5.00	Highly Acceptable
System structure and organization	5	5	5.00	Highly Acceptable
Feasibility of implementation	5	5	5.00	Highly Acceptable
Overall mean	-	-	5.00	Highly Acceptable

Both validators assigned the highest rating to all evaluated criteria, resulting in an overall mean of 5.00, interpreted as Highly Acceptable. The guidance specialist emphasized the system's potential to provide easier access while preserving confidentiality. The information technology specialist likewise recognized its capacity to improve access to records and recommended future integration with the school system.

Implications for Guidance and Counseling Services

MindCare has the potential to improve the organization and continuity of guidance services by combining IIS records, appointment scheduling, request monitoring, and counseling documentation in one platform. Its design can support timely access to student information and more convenient coordination between students and counselors. However, the system has not yet undergone institutional implementation or user-based evaluation. The validation results therefore establish the acceptability of the proposed design, not the effectiveness of the system under actual operating conditions.

CONCLUSION

MindCare is a web-based Individual Inventory Service and counseling support system designed to address limitations associated with manual student-record management. The proposed platform integrates digital IIS forms, counseling and interview requests, appointment scheduling, documentation, monitoring, reporting, role-based access, and data-security features. Expert validation indicated that the design was highly acceptable in terms of relevance, appropriateness of features, data privacy measures, organization, and feasibility. The system has strong potential to improve confidentiality, accessibility, and continuity of guidance services. Its readiness for institutional deployment, however, should be determined through pilot implementation, usability testing, security review, and user-based evaluation.

Recommendations

1. The MindCare system may undergo pilot implementation in an educational setting before full institutional deployment.
2. Usability and end-user satisfaction may be evaluated using a valid and reliable instrument involving students, counselors, and authorized administrators.
3. Security testing may be conducted to verify authentication, role-based permissions, encryption, secure form processing, data retention, backup, and recovery procedures.
4. The proposed integration with existing school information systems may be examined to improve interoperability and reduce duplicate encoding.
5. Advanced reporting and analytics features may be developed while maintaining confidentiality and access-control requirements.
6. Future studies may evaluate the system's effectiveness, user acceptance, service accessibility, response time, and contribution to the continuity of student support.

References

- Ambrocio, R. T. (2024). Record-keeping management practices in secondary schools during post-pandemic: Baseline for a capacity-building program. *International Journal of Advanced Multidisciplinary Research Studies*.
<https://www.multiresearchjournal.com/admin/uploads/archives/archive-1712567107.pdf>
- Balmores, A. M., Cardona, R., Sian, A. M., & Espana, F. A. (2025). Online individual inventory and counseling information system of CSU-Lasam. *Journal of Pure and Applied Sciences*, 3(1). <https://csu.org.ph/jpas/article/view/39>
- Mijac, T., Jadric, M., & Cukusic, M. (2024). Measuring success of information systems in higher education. *Education and Information Technologies*. <https://doi.org/10.1007/s10639-024-12564-8>
- Ngoc, V. T. B. (2024). The application of information technology in student learning. *International Journal of Humanities Social Sciences and Education*, 11(9), 1-10. <https://doi.org/10.20431/2349-0381.1109001>
- Nwokedi, C. N., Olowe, K. J., Alli, O. I., & Iguma, D. R. (2025). The role of telehealth in psychological counseling: A comprehensive review. *World Journal of Advanced Research and Reviews*, 25(1), 1639-1649.
<https://doi.org/10.30574/wjarr.2025.25.1.0228>
- Paalimaki-Paakki, K., Virtanen, M., Henner, A., Nieminen, M. T., & Kaarianen, M. (2022). Effectiveness of digital counseling environments on anxiety, depression, and adherence to treatment among patients who are chronically ill: Systematic review. *Journal of Medical Internet Research*, 24(1), e30077. <https://doi.org/10.2196/30077>
- Quilla, C. C., Padilla, A. M. A., & Florencondia, N. T. (2024). Exploring challenges and inefficiencies in managing student records and academic monitoring in the College of Marine Engineering at the Philippine Merchant Marine Academy (PMMA): Perspectives of students and teachers as basis for a proposed case management system. Zenodo.
<https://doi.org/10.5281/zenodo.14532607>
- Republic Act No. 10173. (2012). Data Privacy Act of 2012. Official Gazette of the Republic of the Philippines.
- University of Southern Philippines Foundation. (n.d.). Guidance and testing services center.
<http://uspf.edu.ph/student%20services/guidance.html>
- Villar, I. V. G. (2007). Implementing a comprehensive guidance and counseling program in the Philippines.