

Irish Taylor & Co.

Case Study

Project Management Software Development

August 2024



Project Management Software

Background

The Christian Institute of Health Sciences and Research (CIHSR) in Nagaland provides quality healthcare services, research and education. CIHSR needed custom project management software to integrate with existing systems and address existing inefficiencies, streamline workflows, enhance resource management and foster better communication across departments. To develop this software, a reliable partner was necessary to design it to a highly effective standard.



Objectives

The primary objectives of the Project management software development project were:

- To develop a robust project management software tailored for managing construction, renovations, repairs, and possibly alternative projects.
- To provide software aiming to address existing inefficiencies, streamline workflows, enhance resource management, and foster better communication across departments.
- To provide a tailored solution that meets the unique requirements of CIHSR by incorporating custom features whilst enhancing project management efficiency.



Challenges

- **Resource mismanagement:** CIHSR struggled with overstocking materials, leading to wastage and unutilised resources. There was also a lack of resource monitoring leading to poor allocation and management
- **Inefficient coordination:** The client faced departmental disconnection, there was a significant lack of coordination between various departments, such as civil, electrical and biomedical engineering.
- **Communication Gaps:** Communication deficits between departments, especially regarding payment and purchasing activities, created misunderstandings and reduced transparency. This made it difficult to track progress and ensure accountability.
- **Approval delays:** The institute faced delays in obtaining necessary approvals for requisites, quotations, and purchase orders which further slowed down project progress.
- **Inability to track project progress:** CIHSR was unable to effectively assess or monitor the progress of work across different projects, leading to a lack of visibility into project status and delays in identifying issues.

Methodology

1. Stakeholder Engagement:
 - We conducted detailed interviews and a multitude of workshops with stakeholders to understand their requirements and the overall scope of the client's project.
2. Gap and Opportunity Analysis:
 - We performed a detailed analysis of CIHSR's existing software to identify gaps and potential areas for improvement.
3. Custom software development:
 - Developed a web application with a user-friendly interface, optimized for the various user personas identified, including admins, project managers, finance heads and departmental managers.
4. Implementation:

- Our software development team then undertook the task of integrating API allowing for seamless communication and enhancing the system's overall functionality.
- Implemented key features such as Gantt charts, a centralised database for rates, digital approval workflows, and a project monitoring dashboard.

5. Comprehensive testing:

- We then conducted extensive testing to validate the software's performance and functionality. This included unit testing, integration testing, and user acceptance testing, which was conducted to validate the software's functionality and performance

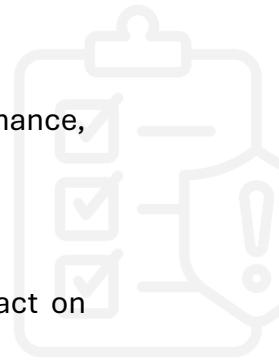
Key Findings

- Through the interviews and workshops, we uncovered the organisation struggled with tracking the utilisation of resources as well as the lack of coordination between departments resulting in delays and discrepancies
- The client required a transition from manual to digital workflows to enhance efficiency and accuracy in project management with prototypes developed to refine the design to align with stakeholder expectations.
- A centralised database was required for tracking and managing projects and streamlining processes to prevent inconsistencies.
- Comprehensive testing was vital in validating the software's performance, functionality and user acceptance.

Impact Analysis

The successful implementation of the custom software had a significant impact on CIHSR:

- Addressed identified gaps, and incorporated the required custom features and integrations, improving the client's efficiency when managing projects.
- Comprehensive testing ensured that the software performed reliably and met the specified customer requirements, minimising the risk of issues.
- Regular communication with Stakeholders helped align the software with business goals and adjust the project scope as needed, ensuring the software was designed to the highest value.



- The software gives the facility to provide functions to initiate, monitor and track the progress of CIHSR projects, adaptable to all projects.

Conclusion

The Project management software initiative conducted by Irish Taylor was a success, effectively meeting the outlined objectives and was released in 2024. The software was successfully designed as a comprehensive web application offering a range of features to initiate, monitor and track the progress of CIHSR projects. This comprehensive software significantly improved CIHSR's project management efficiency, laying a strong foundation for future integration with additional systems.