**Abstract**

To fulfill the academic requirements of our degree program for the 2025–2026 academic year, we successfully completed a three-month internship program at Myanmar DCR Co., Ltd., a Japanese-invested IT company based in Yangon. During this internship, we had the opportunity to observe real-world workflows in a professional environment, understand company operations, and participate in team-based software development activities.

As part of the internship, we were involved in the development of a Human Resource Management System (HRMS) using C# and PostgreSQL. The system was designed to manage employee information, track employee attendance, handle departments and positions, process leave requests, generate attendance summary reports, and support user authentication. Through this project, we gained hands-on experience in desktop application development, database design, and collaborative problem-solving.

This report reflects the technical skills and knowledge we acquired, the challenges we faced, and the valuable lessons we learned while working under the guidance of industry professionals.

3.Plan Of Internship Program

We completed our internship at Myanmar DCR Co., Ltd., a software and IT services company located in Yangon. I was part of a four-member student group assigned to the Software Development Department, where we worked on a real-world project under the supervision of the project manager. Although we were not part of the company’s internal development team, we received regular guidance from senior developers, the team leader, and the manager.

Our assigned project was to develop a Human Resource Management System (HRMS), designed to handle employee information, department and position management, attendance tracking, leave requests, and user authentication. The internship allowed us to gain hands-on experience in the full software development lifecycle, including requirement analysis, system design, implementation, testing, and documentation.

The internship began on May 2, 2025, and concluded on July 31, 2025, covering a duration of three months. Throughout the internship, I had the opportunity to apply the theoretical knowledge of C# Windows Forms that I had learned during university coursework. I gained hands-on experience by working on key modules of the HRMS, such as the employee registration form, leave management interface, and attendance tracking system and attendance summary report. I also became proficient in using PostgreSQL for backend database design and utilized Git for version control and collaboration, which taught me how to manage branches effectively, resolve merge conflicts, and maintain a clean and traceable commit history. These tools strengthened my understanding of full-stack application development.

In addition to programming, I was actively involved in software quality assurance and project coordination. I contributed to quality control by testing the system to ensure it met functional and UI standards. Our team followed a weekly project schedule with review meetings every Friday to evaluate progress and resolve issues. I helped write test cases and reports for manual testing, analyzed and organized the source code by module, and tracked bugs categorized by severity. Before final submission, I participated in code cleanup and refactoring to enhance performance and readability.

This internship helped improve both my technical and interpersonal skills. It strengthened my ability to work in a team, solve problems independently, and understand the flow of professional software development projects. The experience built a solid foundation for my future career in the software industry.

**4. Training Program**

During our internship period, we were assigned to a development team working on a Human Resource Management System (HRMS) project. This project focused on building a desktop-based HR management tool using C#.Net with Windows Forms, integrated with PostgreSQL for data storage and Git for version control. We began the internship by setting up the development environment. We installed Microsoft Visual Studio, PostgreSQL, and supporting tools such as PgAdmin4, Git, and Draw.io for visual modeling and documentation. We also familiarized ourselves with GitHub for source control and team collaboration. Before starting development, we studied existing HRMS systems to understand expected features and real-world use cases. We worked closely with our supervisor to gather and document project requirements, which included creating UI sketches, process flow diagrams, and module breakdowns. Through team discussions, we clarified technical constraints, user roles, data flow, and UI expectations. This process helped us gain a deeper understanding of the software development lifecycle and industry standards. We learned C#.Net and Windows Forms by following structured tutorials and developing small practice modules. We also studied SQL fundamentals to effectively interact with the PostgreSQL database. We practiced CRUD operations, data validation, table relationships, and schema creation — all of which were essential for building a robust and normalized backend.

**4.1 Usage Tools**

During my internship, I used the following tools and technologies for the development of the Human Resource Management System (HRMS) project:

**4.1.1 Microsoft Visual Studio**

Used as the primary Integrated Development Environment (IDE) for developing the Windows Forms-based desktop application in **C#.Net**.

**4.1.2 PostgreSQL**

Served as the relational database management system for storing employee, attendance, leave, and login data. It was accessed using SQL queries and managed via **pgAdmin4.**

**4.1.3 Git & GitHub**

Used for version control and source code collaboration. I learned basic Git commands, commit practices, branch creation, merging, and how to resolve conflicts.

**4.1.4 Draw.io**

Used to design and visualize UI mockups, flowcharts, and entity-relationship diagrams (ERD) before actual development.

**4.1.5 Microsoft Excel**

Used to document project planning, test case writing, bug tracking, feature logs, and status reports.

**4.1.6 Source Code Counter Tool**

Used to count lines of source code, calculate productivity metrics, and ensure consistency in code length and quality.

**4.2 Duties and responsibilities performed**