UNIVERSITY OF COMPUTER STUDIES, HINTHADA

INTERNSHIP REPORT

NEX4 ICT Solutions

MAY-JULY, 2025

In Partial Fulfillment of the Requirements for the Degree of
Bachelor of Computer Technology

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CONTENTS

PAGES

ACKNOWLEDGEMENT.....
.....i
EXECUTIVE
SUMMARY.....
...ii
CHAPTER 1 INTRODUCTION OF THE
REPORT.....1
CHAPTER 2 OVERVIEW OF THE
ORGANIZATION.....2
2.1 Company Profile.....
2.2 Company's Mission, Vision & Value.....
2.3 Internship Objectives.....
CHAPTER 3 LEARNING EXPERIENCE DURING INTERNSHIP.....
3.1 Description of Duties and Lessons I
Learned.....
3.1.1 Unified IT Infrastructure using Microsoft 365
and Windows Server ...
3.1.2 Development of a Student Attendance Tracker
Using Microsoft 365
tools
3.1.3 AI Chatbot Data Preparation and Functionality
Testing
3.2 Activities of First month (May).
3.3 Activities of Second month (June).
3.4 Activities of Third month (July).
CHAPTER 4 ANALYSES
4.1 Strength
4.2 Weakness
4.3 Opportunities

4.4 Challenges
CHAPTER 5 RECOMMENDATIONS AND CONCLUSION
REFERENCES.

ACKNOWLEDGEMENT

The internship program formed the essential basis for this report, which fulfills part of the academic requirements for the Bachelor in Computer Technology degree. The transition from student life to a professional environment, with the aim of applying theoretical knowledge in real-world scenarios, proved to be a valuable and rewarding experience. This report is based on the internship I successfully completed in Yangon.

I would first like to express my sincere gratitude to **Dr. Tun Myat Aung, Pro-Rector, University of Computer Studies, Hinthada**, for granting me the invaluable opportunity to undertake my internship at **NEXT4 ICT Solutions** and to develop my final internship project at the university. My deepest appreciation also goes to **Professor Dr. Khin Kyu Kyu**, Head of the Department of Computer Systems and Technologies, and **Daw Soe Soe Mon, Associate Professor**, along with **Daw Thida Soe, Associate Professor**. Their unwavering support and comprehensive guidance were instrumental in the successful completion of our internship. Furthermore, I am especially grateful to my Supervisor Teacher, **Daw Thida Soe, Associate Professor**, for her dedicated mentorship and invaluable insights throughout the development of these projects. This internship provided a crucial opportunity to bridge theoretical knowledge with practical applications.. The successful completion and presentation of this work were made possible by the immense and insightful assistance provided by countless individuals.

I would also like to express my sincere thanks to the incredible team at **NEX4 ICT Solution**, especially **U Aung Thurein** (Founder and Managing Director), **U Yan Naing Oo** (Chief Technical Officer), **Daw Aye Myat Nandar** (Operations Manager), and **Daw May Thae Sue** (Team Lead of Microsoft), for their warm support and

invaluable mentorship. I am especially grateful to **Daw May Thae Sue** for giving me the opportunity to join the team during my training period. Her clear guidance and generous sharing of knowledge were instrumental in deepening my understanding and gaining real-world experience in the field of **Microsoft technologies**. Finally, I extend my heartfelt appreciation to everyone both those I know and those working behind the scenes who supported, encouraged, and inspired me throughout this internship journey. Their contributions, whether big or small, made this experience truly meaningful and rewarding.

EXECUTIVE SUMMARY

In this report, I will outline the valuable experience gained during an internship with the Microsoft team at NEX4 ICT Solutions. The internship provided a robust platform to engage with cutting-edge Microsoft technologies and solutions, contributing directly to various projects and initiatives.

During the internship, I actively participated in managing and optimizing various Microsoft tools, including Microsoft Admin Center, Power Apps, Power BI, and SharePoint. Separately, I also had significant involvement in developing an AI chatbot for data research and testing. This hands-on experience fostered a deeper understanding of enterprise-level IT solutions, specifically within Microsoft's ecosystem, and practical application of emerging AI technologies.

A key achievement of this internship was the opportunity to collaborate closely with experienced professionals and contribute to real-world projects, which significantly enhanced my problem-solving abilities and technical proficiency in a professional setting. I developed a strong appreciation for team collaboration, agile methodologies, and the importance of delivering high-quality solutions.

Overall, this internship at NEX4 ICT Solutions within the Microsoft team has been instrumental in solidifying my technical skills, expanding my knowledge of the Microsoft ecosystem, and preparing me for future challenges in the technology industry.

CHAPTER 1

INTRODUCTION OF REPORT

Enterprise IT solutions play a critical role in today's digital economy, enabling organizations to streamline operations, manage data efficiently, and deliver smart services. A technology professional in this domain must possess skills not only in managing software tools but also in integrating systems that support collaboration, automation, and data-driven decision-making. With Microsoft platforms like Power Apps, Power BI, SharePoint, and the Microsoft Admin Center at the forefront of modern enterprise solutions, professionals in this field must be adaptable, innovative, and technically proficient.

This report aims to encapsulate the skills and experiences gained during my internship at NEX4 ICT Solutions, where I was assigned to the Microsoft team. Over the course of the three-month internship, I was involved in a variety of tasks, including developing a Power Apps application, managing SharePoint resources, visualizing data using Power BI, and assisting in the development and testing of an AI-powered chatbot for data research. These activities helped bridge theoretical classroom knowledge with practical real-world applications in cloud-based and enterprise-level IT systems.

As part of the second semester final-year curriculum at the University of Computer Studies, Hinthada, students are required to complete an internship to fulfill the degree requirements for Computer Technology. This internship allowed me to explore how Microsoft technologies are used in business environments and gave me hands-on experience under the guidance of skilled professionals at NEX4 ICT Solutions.

The following report outlines the background of the company, my assigned tasks and responsibilities, the technologies I worked with, and the skills I developed throughout

the internship. It also reflects on the challenges encountered, the solutions applied, and the overall benefits of this valuable industry experience.

CHAPTER 2

OVERVIEW OF THE ORGANIZATION

NEX4 ICT Solutions is a private company owned by Myanmar nationals. It was founded in 2013 by U Aung Thurein (Founder and Managing Director), U Minn Myat Soe (Co-Founder and Director), and U Yan Naing Oo, the Chief Technical Officer, who plays a key leadership role in shaping the company's strategic and technical direction. The company specializes in delivering end-to-end IT solutions, including hybrid cloud consulting, managed services, enterprise networking, cybersecurity, software development, IP telephony, big data analytics, and data center infrastructure.

2.1 Company Profile

Figure 2.1 Company Profile

2.2 Company's Mission, Vision and Value

Mission

- ✓ To provide innovative, reliable, and high-quality ICT solutions that empower businesses to thrive in a digital world.
- ✓ To deliver tailored IT services that meet customer needs efficiently and affordably.
- ✓ To foster a positive and creative working environment where employees are motivated to innovate and grow.

Vision

- ✓ To be the leading ICT solutions provider in Myanmar and the region, recognized for excellence, innovation, and customer satisfaction.
- ✓ To drive digital transformation by enabling seamless connectivity, secure infrastructure, and smart technology adoption.
- ✓ To build long-lasting partnerships based on trust, professionalism, and mutual growth.

Value

- ✓ Customer Focus
- ✓ Integrity
- ✓ Innovation
- ✓ Teamwork
- ✓ Quality
- ✓ Reliability

2.3 Internship Objectives

The primary aim of internship program is to cultivate practically oriented professionals who are well-equipped to meet specific job requirements.

- ✓ To give students the opportunity to apply academic knowledge and techniques to real-world problem-solving.
- ✓ To connect students and faculty with industry experts and potential employers, creating a space for collaboration and feedback that strengthens our curriculum.
- ✓ To help students understand professional ethics, job market expectations, workplace roles, and future career options.
- ✓ To provide hands-on work experience that prepares students for a smooth transition into the professional world after graduation.

CHAPTER 3

LEARNING EXPERIENCE OF DURING INTERNSHIP

An internship offers an incredible opportunity to gain first-hand experience in a chosen field. Beyond the technical skills, it’s also a period of significant personal and professional growth as you adapt to a new work environment and acquire essential competencies. Here are some key lessons I learned during my internship:

One of the most immediate takeaways was the critical importance of punctuality and effective time management. In the professional world, time is a highly valuable commodity. I quickly realized that success hinges on mastering skills like understanding priorities, efficiently performing identified tasks, and actively avoiding procrastination.Effective communication is vital in any profession, and during my internship, it became especially clear when working with more experienced colleagues. Learning to use my voice effectively and be assertive in my interactions helped me build trust and rapport with those around me.

The internship also provided an invaluable introduction to business culture. I got to grips with the company's structure, values, and professional etiquette. I observed firsthand how office dynamics work, how to prioritize tasks when multiple projects are underway, and the art of multitasking. It was also an opportunity to confirm my ability to dress formally and adapt to various work environments.

My thinking became more versatile, and my research and analytical abilities significantly developed. Each project presented its own unique challenges, requiring

creative problem-solving and resourceful information gathering. Furthermore, the cross-functional experience offered a deeper understanding of the organizational structure and diverse working methodologies.

Perhaps one of the most significant motivators was the realization that my work genuinely mattered to the company. This sense of purpose and the recognition I received greatly boosted my morale and deepened my interest in the field. Overall, the internship provided me with substantial knowledge and practical skills, smoothly facilitating my transition from academic studies to professional life.

3.1 Description of Duties and Lessons I Learned

During my training, I had the opportunity to work with a range of Microsoft technologies and IT infrastructure tools that strengthened both my technical and practical skills. I was actively involved in developing a Student Attendance Tracker App using Power Apps, Power Automate, and SharePoint List. This project allowed me to create a user-friendly interface for managing student attendance while automating workflows and storing data efficiently within the Microsoft 365 ecosystem.

Additionally, I gained hands-on experience using Microsoft 365 Admin Center, Windows Server 2022, and Microsoft Intune to manage users, devices, and policies in a professional IT environment. These tools helped me understand the fundamentals of enterprise-level system administration, including identity management, security configurations, and endpoint protection.

One of the most valuable parts of my training involved supporting the development and testing of an AI chatbot used for adding and retrieving data. This experience gave me practical exposure to AI integration and real-time data handling, which expanded my understanding of modern digital solutions.

Overall, my training allowed me to explore real-world applications of Microsoft technologies, automation tools, and AI, while also sharpening my critical thinking and problem-solving abilities in IT system design and deployment.

3.1.1 Unified IT Infrastructure using Microsoft 365 and Windows Server

A unified IT infrastructure that seamlessly integrates Microsoft 365 cloud services with the on-premises capabilities of Windows Server 2022. The infrastructure is designed to support hybrid IT environments, offering a scalable and secure foundation for user identity management, collaboration, and essential network services.

A key focus of the implementation is identity and access management. It demonstrates how user accounts are created and managed across three distinct environments: Microsoft 365 (Cloud-only), Windows Server 2022 Active Directory (On-Premises), and a Hybrid setup that combines both platforms. For cloud-only users, the Microsoft 365 Admin Center is used to create and administer accounts. On-premises users are managed through the Active Directory Users and Computers (ADUC) console on Windows Server 2022. The hybrid environment leverages Azure AD Connect, Active Directory Domains and Trusts, and the Microsoft 365 Admin Center to enable synchronization and unified sign-on experiences.

In addition to user account management, the infrastructure also includes the creation and administration of different group types within Microsoft 365, such as Microsoft 365 Groups, Distribution Groups, and Security Groups. All group configurations are carried out through the Microsoft 365 Admin Center, supporting both communication and security purposes in a cloud-first environment.

Beyond identity management, the infrastructure incorporates essential network services provided by Windows Server 2022. This includes the setup of a DNS Server, with a focus on configuring Forward Lookup Zones and Reverse Lookup Zones for proper name resolution within the local network. The DHCP Server is also configured to automatically assign IP addresses by defining custom IP scopes, setting exclusions, and adjusting lease durations. Both DNS and DHCP functionalities are thoroughly tested to confirm successful IP address assignment and domain resolution across the LAN.

This unified and hybrid approach ensures a reliable, secure, and scalable IT infrastructure that supports both cloud-based and on-premises resources. It enhances operational efficiency, strengthens identity management, and delivers consistent network services to meet modern organizational needs.

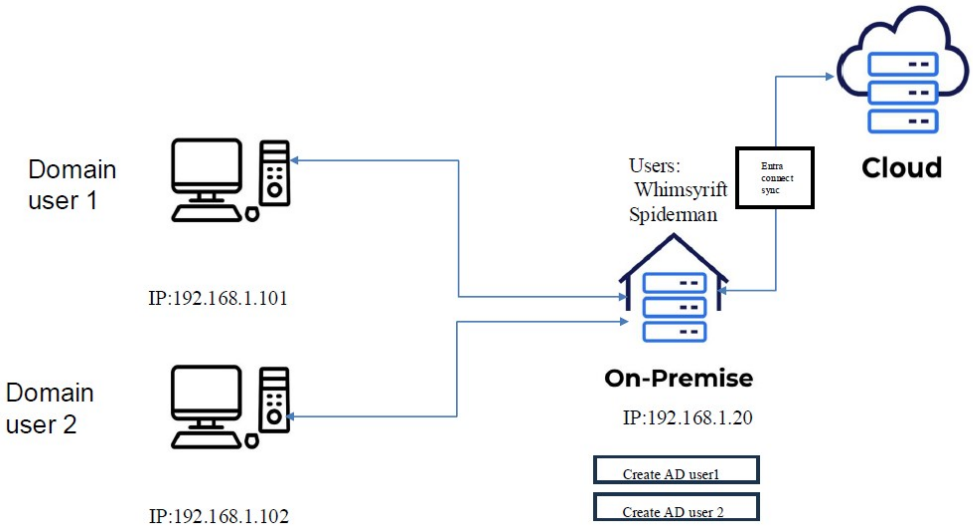

Figure 3.1 Diagram of Cloud , On- Primise , Hybrid

3.1.2 Development of a Student Attendance Tracker Using Microsoft 365 Tools

Microsoft 365 tools are a suite of cloud-based productivity, collaboration, and management applications developed by Microsoft. These tools are designed to help individuals, teams, and organizations work smarter, whether they are in the office, at school, or working remotely. During my training , I developed a Student Attendance Tracker using Microsoft 365 tools to help lecturers record, monitor, and manage student attendance data more effectively. Just like in IT infrastructure monitoring, effective attendance monitoring ensures that any issues, such as frequent absences or irregular participation, are detected early before they impact learning outcomes or course performance.

The tracker was built using Power Apps for the user interface, SharePoint Lists as the data source, and Power Automate to handle workflow automation. The interface was designed to be intuitive and user-friendly, allowing lecturers to quickly record attendance during each class or session. Key features of the system include a dropdown to select the course or class, a gallery view of enrolled students, and a toggle switch or checkbox for marking each student's presence. Once marked, attendance entries are automatically timestamped, eliminating manual date input and reducing errors.

The backend relies on SharePoint Lists, which act as the central repository for all attendance records, student information, and class schedules. I practiced creating and

linking multiple lists for proper data normalization and efficient retrieval. Each record contains details such as the student ID, name, selected course, session date, and attendance status.

To extend the functionality, I integrated Power Automate to generate and send weekly attendance summaries via email. This automation collects the past week's data from the SharePoint list compiles the records into a digestible format, and emails it to the respective lecturers or administrators. This helps ensure transparency and timely follow-up with students who may have missed multiple sessions.

This hands-on experience helped me understand how proactive attendance monitoring can assist academic institutions in identifying issues early and supporting students more effectively. I also learned how logs, records, and automated alerts contribute to better data visibility and decision-making. The tracker not only improves attendance recording efficiency but also plays a significant role in academic reporting, student support planning, and resource allocation.

In addition to basic attendance tracking, this system is scalable and adaptable. For example, features like auto-reminders for lecturers, integration with Teams notifications, or dashboard visualization using Power BI can be added to enhance usability and insights. This flexibility makes the solution suitable for both small classrooms and large institutions.

By leveraging Microsoft 365's low-code tools—Power Apps, SharePoint, and Power Automate—I was able to create a reliable and efficient student attendance monitoring platform. The system is easy to deploy, maintain, and customize, making it an excellent solution for modern education environments seeking to blend technology with classroom administration.

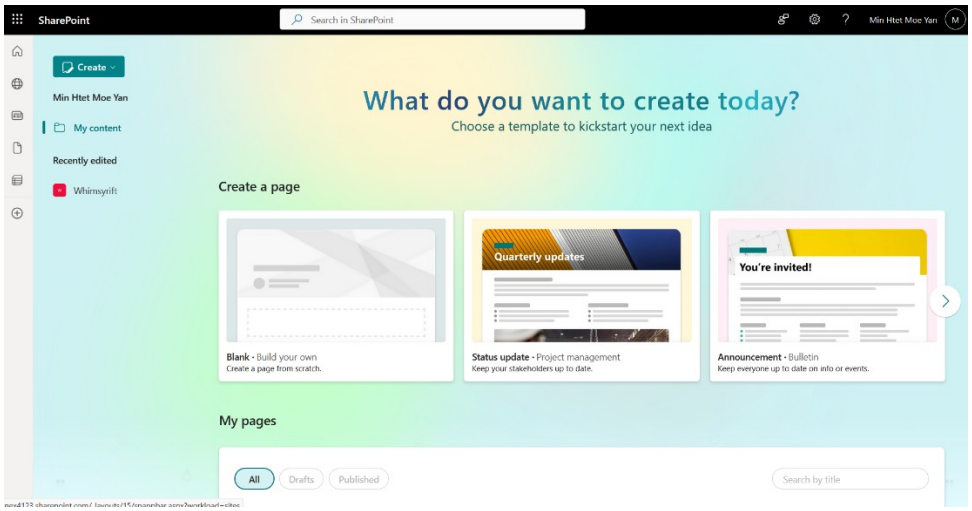

Figure 3.2 Sharepoint

3.1.3 AI Chatbot Data Preparation and Functionality Testing

AI chatbot data preparation and functionality testing are the process of training a chatbot with sample data (intents, utterances, entities) and testing its ability to understand user input, respond correctly, and work smoothly in real-world scenarios. During my training, I worked on developing and testing an AI chatbot with a focus on data preparation, functionality testing, and version control using modern tools and practices.

To begin with, I used Visual Studio Code (VS Code) as my primary development environment and GitHub to manage my project's version control. I created structured data sets consisting of sample questions and answers, grouped into intents and entities, which the chatbot uses to understand user queries.

The chatbot project was run locally using the npm start command. This allowed me to launch the chatbot interface in a local environment (localhost), where I could simulate real user interactions and observe how the bot responded.

During testing, I checked various conversation flows including greetings, FAQs, error handling, and multi-turn dialogues. I recorded the bot's responses and user queries manually in Excel and Word for documentation and analysis. These records helped evaluate the chatbot's accuracy and identify areas for improvement.

Additionally, I tested the system for intent recognition accuracy, ensuring the chatbot could correctly identify the user's purpose based on the given input. I also evaluated the relevance of the responses to confirm they were contextually appropriate

and useful. Fallback handling was another critical area, where I observed how the chatbot responded to unexpected or unrecognized inputs. Finally, I assessed the speed and consistency of the bot's answers across different scenarios to ensure a smooth user experience.

This hands-on experience gave me deeper insight into chatbot design and testing workflow. Using GitHub helped me track code changes and manage versions effectively, while local testing ensured real-time response evaluation. By documenting the interactions in Excel and Word, I was able to maintain clear records of performance and prepare for future improvements or deployments.

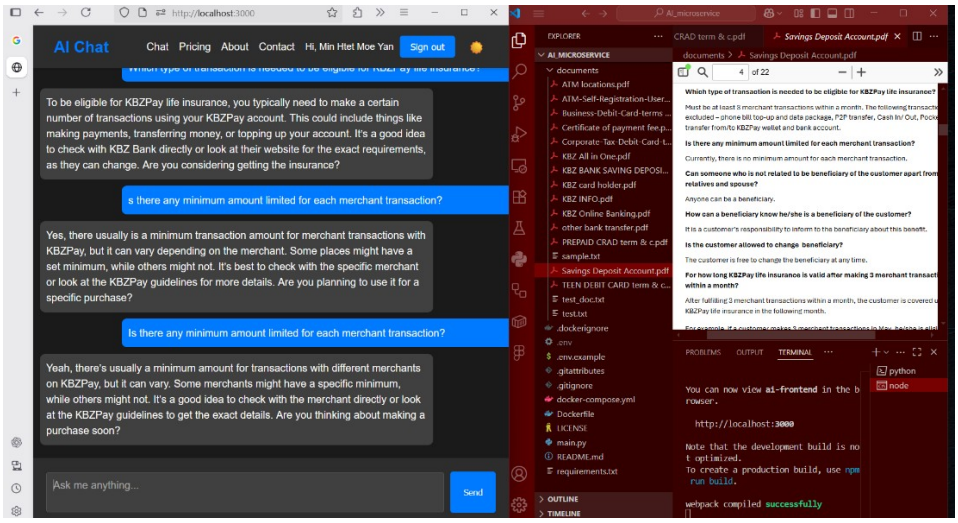

Figure 3.3 AI Chat Bot

3.2 Activities of First month (May)

During the first month of my internship, I focused on learning and implementing key system administration concepts using Microsoft 365 and Windows Server 2022. I gained hands-on experience in user and group management, Active Directory integration, DNS and DHCP server configuration, and device binding in Microsoft Intune. These activities were performed across cloud, on-premises, and hybrid environments to gain a holistic understanding of enterprise-level IT infrastructure.

During my training in the Microsoft 365 cloud environment, I learned how to create user accounts using the Microsoft 365 Admin Center. I began by logging in to admin.microsoft.com, then navigated to the Users section and selected Active Users.

From there, I clicked on Add a user to begin the account creation process. I entered the required user information, including first name, last name, display name, username, and configured the password settings. I assigned the appropriate product licenses, such as Microsoft 365 Business Standard, according to the user's responsibilities. I also defined user roles, choosing either Standard User or Admin, while applying the principle of least privilege. To ensure better security, I followed the best practice of limiting the number of Global Admin accounts to four or fewer. This helped maintain a secure and organized cloud environment.

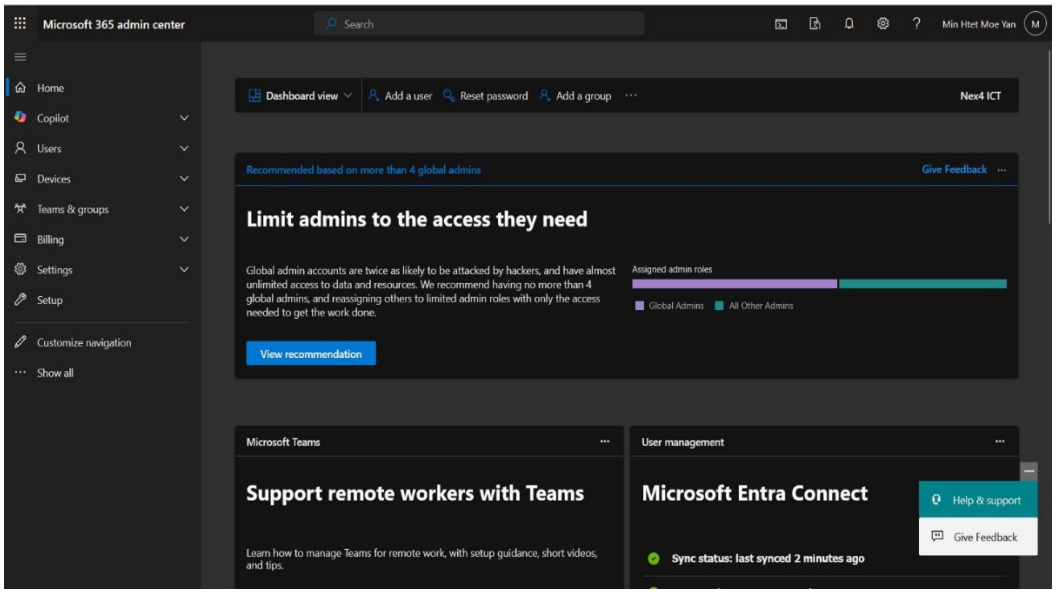

Figure 3.4 Microsoft 365 admin center

On a local server, I used the Active Directory Users and Computers (ADUC) tool to manage on-premises user identities. I began by launching ADUC and creating a new Organizational Unit (OU) to logically organize users. Within the OU, I created new user accounts by right-clicking on the OU, selecting the "New" option, and then choosing "User" from the context menu. I proceeded to enter the required user information, such as full name, username, and password settings. This process allowed for effective user management and organization within the local Active Directory environment.

In a hybrid setup that connects the local Active Directory with the cloud-based Microsoft Entra ID (formerly Azure Active Directory), I worked with several tools including Active Directory Domains and Trusts, Azure AD Connect, and the Microsoft

365 Admin Center. I added alternative User Principal Name (UPN) suffixes to provide users with more simplified and flexible logon options. To enable directory synchronization, I configured and used Azure AD Connect, ensuring that on-premises users were synced with the cloud directory. I also used PowerShell to manually trigger synchronization using this command Start-ADSyncSyncCycle -PolicyType Delta. This command initiates a delta sync, which synchronizes only the changes made since the last sync, making the process more efficient.

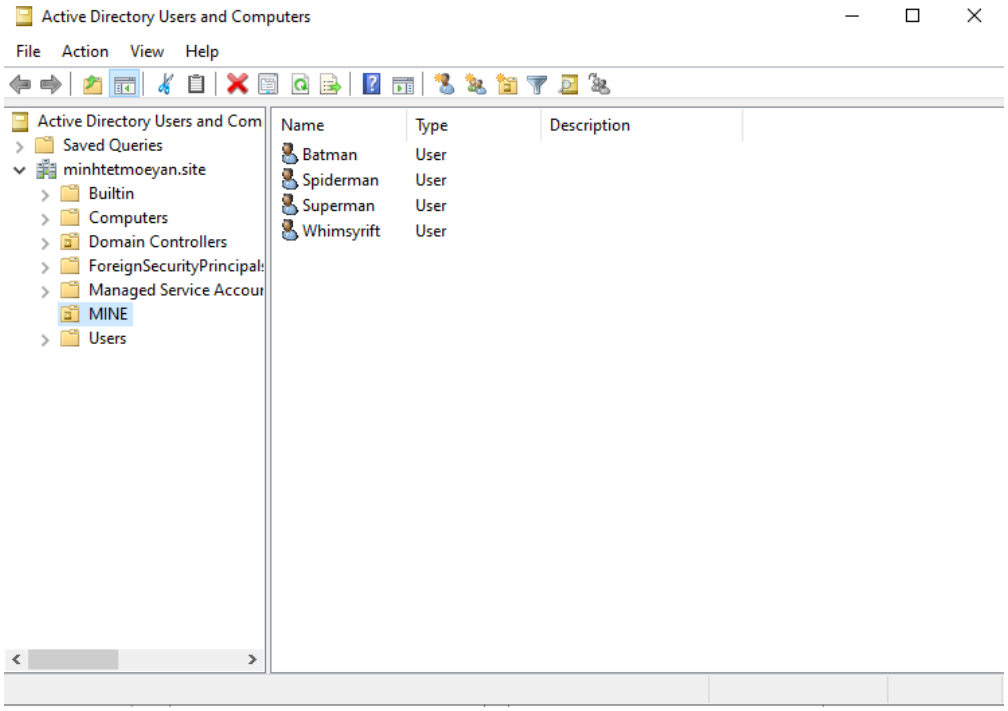

Figure 3.5 Active Directory Users and computers

Using the Microsoft 365 Admin Center, I learned to create and manage different types of groups to support communication, collaboration, and access control within an organization. To create a Microsoft 365 Group, I navigated through the Admin Center by selecting Teams and groups, then Active teams and groups, and finally choosing Teams and Microsoft 365 groups, where I clicked on Add a Microsoft 365 group. These groups are especially useful for team collaboration, as they provide integrated access to shared mailboxes, SharePoint sites, and Microsoft Teams.

Next, I created a Distribution Group by selecting Teams and groups, then Distribution list, and clicking on Add a distribution list. Distribution groups are designed

for efficient communication, allowing emails to be sent to multiple users at once without the need to message each individual separately.

Lastly, I created a Security Group by navigating to Teams and groups, selecting Security groups, and then choosing Add a security group. These groups are used primarily to manage permissions and control access to specific resources such as SharePoint sites, Microsoft Intune, or administrative configurations. This structured group management supports both secure access control and smooth collaboration across Microsoft 365 services.

I configured and validated a DNS server on the Windows Server 2022 platform. To begin, I launched the DNS Manager using the dnsmgmt.msc console. I then created both a Forward Lookup Zone and a Reverse Lookup Zone to support bidirectional name resolution. After configuring the zones, I tested name resolution from both the server and client machines to ensure proper DNS functionality. The DNS server was able to accurately resolve hostnames to IP addresses and vice versa, confirming that the setup was successful.

I also set up and tested a DHCP server to enable automatic IP address assignment to client devices on the network. Using the dhcpmgmt.msc console, I created a new scope under the IPv4 section. In the scope configuration, I defined the scope name and description, set the IP address range from 192.168.1.100 to 192.168.1.200, specified the subnet mask, excluded specific IP addresses from the range, and set the lease duration. Additionally, I configured the DNS server IP addresses to be distributed along with the leases. After activating the scope, I confirmed that IP addresses were successfully assigned to the clients: Client-1 (Whimsyrift) received 192.168.1.101 and Client-2 received 192.168.1.102. This validated that the DHCP server was functioning correctly.

To explore modern endpoint management, I enrolled and bound a test client device into Microsoft Intune. I accessed the Microsoft Intune Admin Center through the Microsoft Endpoint Manager portal and navigated to the **Devices** section, then to **Enroll devices**, and finally selected **Windows enrollment** to begin the registration process. Using a work or school account, I logged into the client device and confirmed that it successfully checked in with Intune. Once enrolled, the device automatically received assigned policies and configuration profiles, enabling centralized compliance monitoring and management through the Intune platform.

3.3 Activities of Second month (June)

During the first week of my internship in May, I designed a simple "Attendance App" interface using Power Apps. The home screen featured a clear title labeled "Attendance App", along with a subtitle or instruction reading "Choose Your Role". I created two distinct role selection buttons using image components. The top image button displayed a student carrying a backpack and a book, which I linked to navigate to the Sign in as student screen. The bottom image button showed a teacher standing at a blackboard, and I configured it to navigate to the Sign in as Teacher screen . These image buttons were created using Image controls with navigation actions added to their OnSelect properties. I also added label controls at the footer for credit, displaying "Coursera" and the website "www.coursera.org", along with a small image—likely a logo —related to Coursera or online learning. Throughout the design, I applied various Power Apps properties and functions to manage control behavior and enhance the user interface.

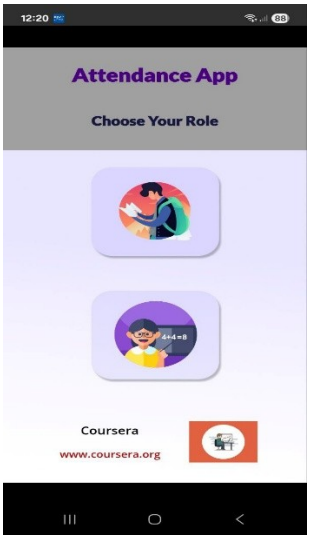

Figure 3.6 Home screen of app

I was making great progress in my second week of internship, and completing the "Student Panel screen" was a solid achievement for me—especially since I was building it using Power Apps. I had designed a user-friendly interface with a clean layout, where each field served a clear purpose. I successfully integrated various Power Apps controls such as text input for the student name, dropdowns for the class name and time selection, a date picker for the timestamp, image input for uploading student photos, radio buttons for marking attendance, and buttons for resetting and submitting the form. I had

structured the form logically to ensure smooth and efficient data entry. Although I hadn’t connected it to a data source at first, I designed it in a way that was ready for integration.

Later, I took a key step forward by connecting my form to a SharePoint list named **"AttendanceTracker"**. This SharePoint list included columns such as ID, StudentName, ClassName, StudentImage, IsPresent, TimeStamp, and a Custom field—all of which directly corresponded to the fields on my Power Apps form. This alignment made data binding straightforward and efficient. I set the DataSource property of the form to this list, and each data card automatically mapped to its respective SharePoint column. For dropdowns like ClassName, I used Choices(AttendanceTracker.ClassName) to ensure consistent data selection.

I also configured the **Submit button** using the formula SubmitForm(FormName); Navigate(SuccessScreen, ScreenTransition.Fade) so that once the data is submitted, the app automatically navigates the user to a **Success screen** for confirmation. This improved the user experience by providing clear feedback after submission. The **Reset button** was configured with ResetForm(FormName) to clear the form for new entries.

This setup validated the structure of my form and reflected my growing understanding of how to build functional, data-driven applications. After that, I continued refining the app by working on validation rules, improving user feedback, and preparing for error handling to make the app more reliable and user-friendly.

Overall, this experience helped me build strong skills in low-code development, user interface design, and SharePoint integration. It was exciting to apply what I had learned and contribute meaningfully to the project during my internship.Creating the "Success Screen" was a great addition to my Power Apps application. I designed it to provide clear visual feedback after a form submission. The screen includes a large blue checkmark, a message saying "This was successfully completed," and two navigation buttons—one for going back to the home screen and another for returning to the student panel screen.

I created a new screen in Power Apps and added an icon for the checkmark, a label for the success message, and two buttons. I set the **Home** button's OnSelect to Navigate(HomeScreen, ScreenTransition.Fade)and the **Back** button to Navigate(StudentPanelScreen, ScreenTransition.Fade).

In my third week of internship, I made significant progress by creating the "Teacher Dashboard" screen—marking a major step forward in building a complete, functional Power Apps application. This screen moves beyond simple data entry and introduces data viewing and management features. I designed the dashboard with a clear title, "Teacher Dashboard," and included a search bar with a text input control, accompanied by a magnifying glass icon, allowing teachers to easily search for student records by name.

At the heart of the dashboard is a gallery control that pulls data from the SharePoint list "AttendanceTracker." The gallery displays key fields such as student image, student name, attendance status, timestamp, and class name. Each column is displayed using label and image controls, providing a clear and organized view of each student's record. I also configured the gallery's Items property to filter results based on the search input, using a formula like Filter(AttendanceTracker, StartsWith(StudentName, SearchInput.Text)), to enable real-time search functionality.

Additionally, I implemented a bottom navigation bar with intuitive icons. The home icon navigates to the main home screen, and the exit icon could be used for logout or app exit functionality. This dashboard represents a thoughtful user experience designed specifically for the teacher role and contributes to the app's full user flow—from data entry in the Student Panel, confirmation on the Success Screen, and now to data management in the Teacher Dashboard.

Building this screen has allowed me to apply more advanced Power Apps concepts, including data visualization, filtering, and role-specific interface design. It demonstrates that I am now able to not only design effective user interfaces but also connect, manipulate, and display data dynamically. This has been an exciting milestone in my internship journey, and I look forward to expanding the app's features even further.

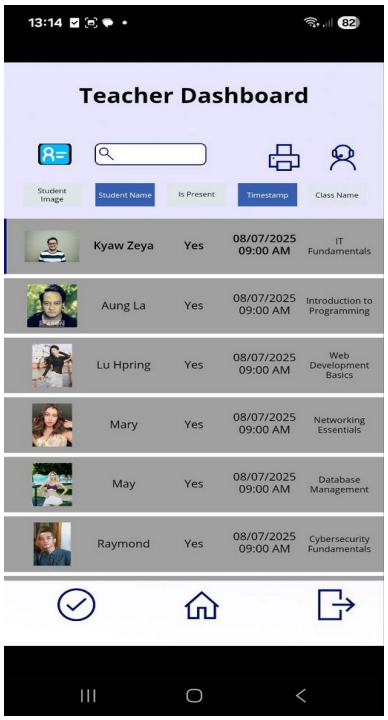

Figure 3.7 Teacher Dashboard of app

In the last week of May , I achieved an important milestone in my Power Apps development by successfully implementing role-based authentication using SharePoint lists. This feature adds a layer of security and user-specific access to the app, which is crucial for any real-world application. I created two separate login screens—"Sign in as Teacher" and "Sign in as Student"—each with its own input fields for username and password, a “Sign In” button, and a link to switch between the two roles. These interfaces were designed for both functionality and ease of use. I also included a warning icon to indicate errors such as invalid login attempts.

To manage authentication, I used two SharePoint lists: “Admin Accounts” for teachers and “Student Accounts” for students. Each list contains usernames and passwords for their respective users. On the "Sign In" button’s `OnSelect` property, I used the `LookUp()` function to validate user credentials against these lists. If the credentials match, the user is navigated to the appropriate dashboard—either the Teacher Dashboard or a planned Student Home screen. If not, a notification is triggered to alert the user of invalid login details.

This implementation marks a major advancement in my app's development. It not only enhances security but also introduces user-specific navigation, laying the groundwork for a more dynamic and scalable application. It shows my growing ability to build multi-role, data-driven solutions in Power Apps.

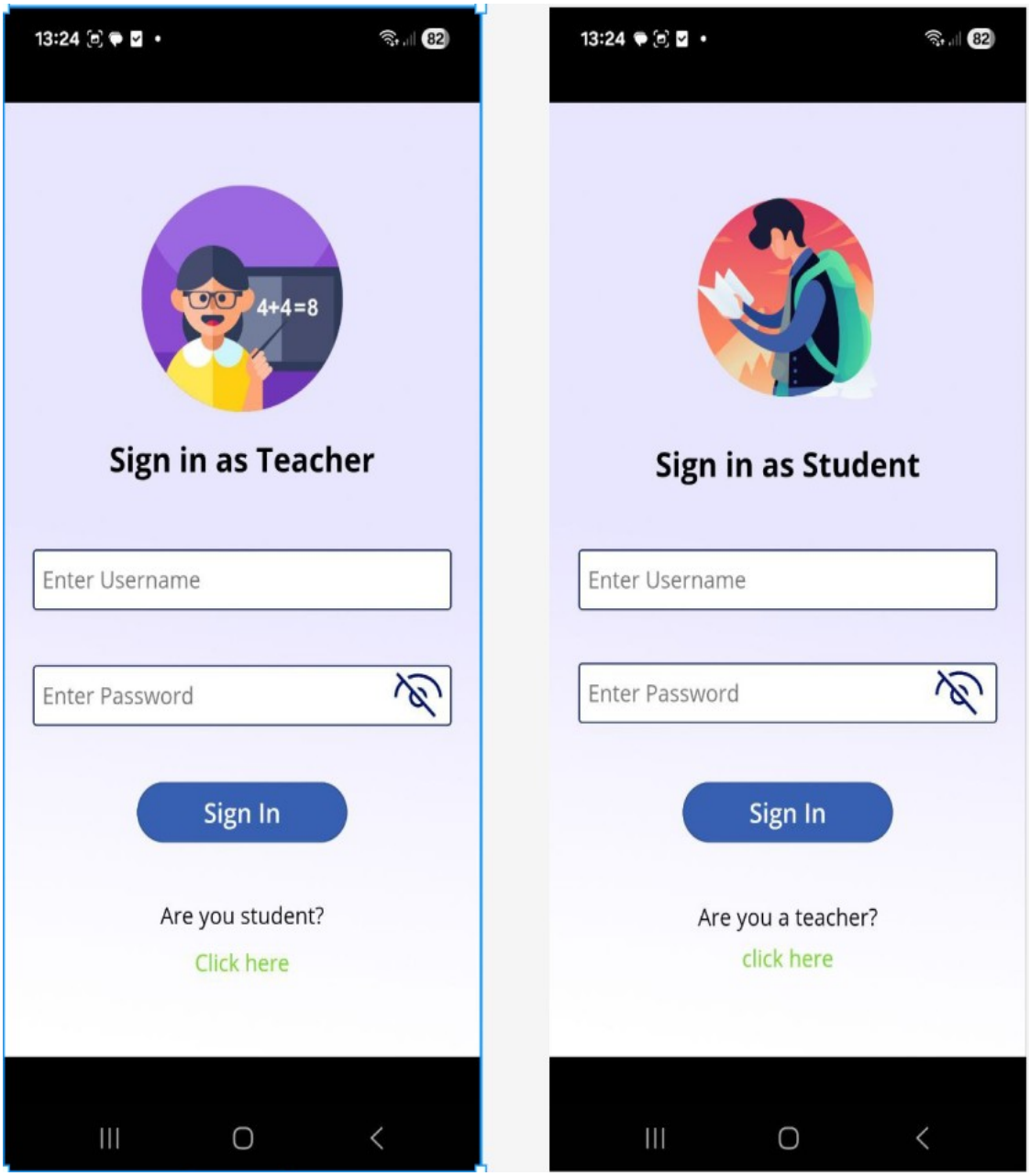

Figure 3.10 Two sign in screen

3.4 Activities of Third month (July)

In the final month of May, I focused on enhancing an AI chatbot by integrating financial information specifically related to KBZ Bank and Japan Visa cards. To support this integration, I added several relevant documents such as "Business Debit Card Terms & Conditions", "KBZ Card Holder Guide", various terms and policies for prepaid and teen debit cards and etc. These documents were added and managed using Visual Studio Code, where I also created a new branch from the main GitHub repository. After completing the development, I merged this branch back into the main to consolidate the updates. As part of the enhancement process, I tested the chatbot's performance in four key areas: answer accuracy, answer readability, response time, and its behavior during slow responses. The testing involved 11 participants, each asking 50 questions, making a total of 550 test interactions. The results from this round of testing helped validate the chatbot's improvements and overall effectiveness in handling banking-related inquiries. The entire development and testing process was carried out on a local environment using Windows Terminal (PowerShell and CMD), with the project directory located at D:\AI\ AI_microservice.

In addition to working on the AI chatbot, I also began learning TypeScript during the final month of May. As part of my hands-on practice, I wrote one full page of TypeScript code to understand the basic concepts such as type annotations, interfaces, functions, and class-based object-oriented programming. This exercise helped me see the advantages TypeScript offers over JavaScript, especially in terms of code structure, error prevention, and maintainability. While writing the TypeScript page, I practiced defining custom types and interfaces, working with typed function parameters, and creating simple classes with constructors and methods. This foundational experience gave me a clearer understanding of static typing and how it can improve large-scale application development. Integrating this knowledge with the AI chatbot project made me more confident in working with typed languages and strengthened my ability to write safer and more scalable code. This learning was carried out alongside my practical work with the AI microservice, contributing to both my technical growth and the success of the overall project.

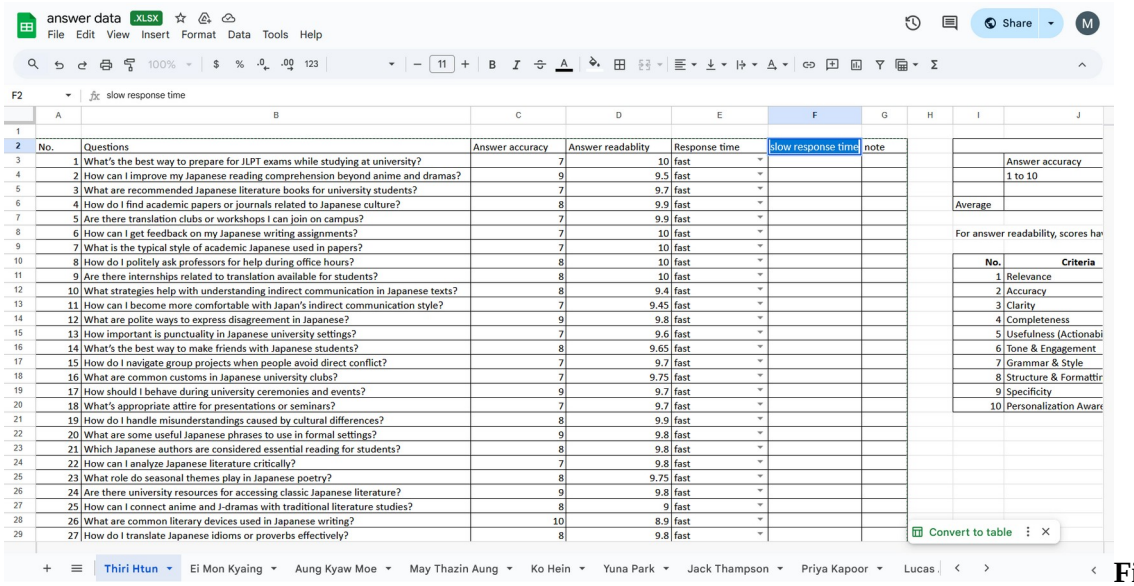

Figure 3.11 AI chat bot testing

CHAPTER 4
ANALYSES

An internship at an ICT Solutions company, especially one centered around Microsoft technologies, offers a distinctive and valuable experience in the information and communication technology sector. ICT Solutions companies play a pivotal role in providing software, cloud, and enterprise solutions to businesses, helping them enhance productivity, security, and collaboration. This paper analyzes a Microsoft internship within an ICT Solutions firm, emphasizing the skills, practical exposure, and insights gained into the industry.

The internship is significant because it provides interns with comprehensive knowledge of Microsoft's ecosystem, including tools such as Microsoft 365, Azure cloud services, Power Platform, and enterprise security solutions. Interns become familiar with cloud architecture, SaaS (Software as a Service) deployment, and integration techniques that are essential in modern digital transformation projects. Exposure to these platforms enables interns to understand how businesses leverage Microsoft technologies to improve operations, communication, and data management.

A critical aspect of the internship is hands-on experience with Microsoft cloud infrastructure and services. Interns engage in configuring Azure resources, managing Active Directory, setting up Teams and SharePoint environments, and automating workflows using Power Automate. Such practical involvement enhances technical skills in cloud computing, identity management, and enterprise collaboration. This exposure is vital for aspiring IT professionals as cloud technologies dominate the current and future IT landscape.

Problem-solving skills are also significantly developed during the internship. Interns encounter real-world challenges such as migration issues, system integrations, and security compliance. They learn to troubleshoot user access problems, optimize cloud resource utilization, and apply best practices for data protection. These experiences cultivate a solution-oriented mindset and foster critical thinking, preparing interns for dynamic roles in ICT support and consultancy.

Working on client projects allows interns to appreciate the importance of customer-centric approaches and effective communication. Collaborating with project teams, they learn to gather requirements, document solutions, and deliver presentations. These soft skills complement technical expertise and are crucial in client-facing roles within the ICT industry.

In summary, a Microsoft internship in an ICT Solutions company offers a well-rounded introduction to enterprise technology solutions. It equips interns with in-demand technical skills, practical problem-solving abilities, and professional experience working on live projects. This comprehensive exposure significantly boosts career prospects in IT administration, cloud engineering, and digital transformation consultancy.

4.1 Strengths

As an intern at NEX4 ICT Solutions, my strengths include prior work experience in the telecommunications and technology sector. Therefore, I hope to apply my communication and software technology skills related to Microsoft technologies. Additionally, my English language proficiency has been gradually improving, and during my time at NEX4 ICT Solutions, I have gained practical experience working with Microsoft 365, Azure cloud services, and the Power Platform.

Interning at NEX4 ICT Solutions has allowed me to actively learn how to apply Microsoft cloud technologies in business environments. I have gained hands-on experience in creating Azure resources, managing Active Directory, configuring Teams and SharePoint environments, and automating workflows using Power Automate. These practical experiences have enhanced my technical skills and enabled me to solve technology-related challenges effectively.

A good intern must also have strong communication skills and be able to work well with diverse people. I believe that with my patience, eagerness to learn, and capability to perform tasks, I have good prospects of obtaining a valuable job. In the future, working in the technology sector will bring new and diverse work and life experiences.

Interning at NEX4 ICT Solutions provides opportunities for career growth through direct exposure to new technologies and participation in the company’s training and

development programs. Furthermore, networking opportunities both inside and outside the company allow me to gain new experiences in the tech field and support my professional advancement. In summary, NEX4 ICT Solutions aims to help employees improve their technical skills and enable them to contribute effectively to future business ventures.

4.2 Weakness

During my internship, I was able to complete most of my tasks successfully. However, in some situations, I hesitated to ask questions or seek help because I was afraid it might make me seem less capable or inexperienced. As a result, instead of asking directly, I often turned to other sources like YouTube or websites to learn on my own. While this approach sometimes helped, it also caused delays and took up more time than necessary. This hesitation occasionally made it harder to complete tasks efficiently and affected my overall time management.

NEX4 ICT Solutions faces some challenges. They compete with big international and local IT companies, which makes it hard to grow their market share. Their business depends heavily on Myanmar's unstable political and economic situation. Finding and keeping skilled IT staff is also difficult due to high demand and limited training. Keeping up with fast-changing technology requires constant investment. They mainly work in Myanmar, so they have limited international reach. Budget limits may restrict large projects or expansions. Finally, scaling services while maintaining quality can be challenging.

4.3 Opportunities

I believe that joining NEX4 ICT Solutions as an intern will provide me with valuable work experience aligned with my personal interests. Through this internship, I will be able to identify my strengths and better understand the areas where I can perform best. If someone is truly passionate and dedicated, there is a good chance to turn that passion into a full-time job.

NEX4 ICT Solutions is a company that supports the growth and success of its employees. Every new employee is given a clear path to progress toward their desired roles. Over time, as their responsibilities become more strategic, more opportunities are likely to

open up. Moreover, there is also a chance to apply what we have learned for the benefit of our own country.

There are many great prospects for career advancement at NEX4 ICT Solutions. Employees gain hands-on experience working directly with advanced networking tools and technologies, which enhances their technical knowledge and skills in the field of communications. As a result, NEX4 provides opportunities to engage in various projects such as network expansion, integration of new technologies, and more.

This work environment allows individuals to actively gain experience in project management and teamwork. Furthermore, NEX4 ICT Solutions places a strong emphasis on staff development. Training sessions and workshops are frequently organized to ensure that employees are kept up to date with the latest technologies and industry standards.

In addition, strong internal and external professional relationships help to enhance employees' experiences and create further opportunities for promotions in the future. Overall, NEX4 ICT Solutions can be seen as an excellent platform for developing technical expertise and professional growth through meaningful participation in projects.

4.4 Challenges

Intern often face challenges such as adapting to advanced technologies, learning complex Microsoft systems like Azure and Active Directory, and working in diverse, fast-paced environments. These challenges are valuable learning experiences that help them grow professionally and personally. They develop skills to handle pressure, adapt to global standards, and collaborate effectively with international teams.

CHAPTER 5

RECOMMENDATIONS AND CONCLUSION

This internship gave students the opportunity to connect academic knowledge with real-world challenges and gain exposure to modern technologies in the ICT industry. NEX4 ICT Solutions is a well-established ICT company that offers services related to networking, cloud systems, and Microsoft technologies. As part of the internship program, the intern was involved in technical operations such as user and group management, DNS and DHCP server configuration, and development of automation tools using Microsoft Power Apps and Power Automate. The intern also gained practical experience with SharePoint and AI chatbot development. However, as a computer technology student, there was also an interest in working more closely with server infrastructure and hardware systems to expand hands-on knowledge in that area. Still, this company offered a very supportive and resourceful environment for interns to grow.

After completing the full internship period, many valuable skills and knowledge were gained, and new professional relationships were formed. The internship provided a fresh perspective by offering opportunities that extended beyond classroom learning and curriculum boundaries. These experiences helped the student apply theoretical knowledge to real-life scenarios, which contributed significantly to both academic and career development. During the internship, the intern developed technical and soft skills such as time management, communication, and adaptability to professional culture. Exposure to real-world ICT operations helped strengthen the understanding of enterprise systems and modern technologies such as Microsoft 365 and Windows Server 2022. There was also valuable experience in teamwork and collaboration with company staff, which helped the intern better understand how IT professionals work in a business environment. This kind of practical training is essential for every student. Therefore, internship programs like this should continue for the benefit of future students in the faculty. Furthermore, good performance during such internships may lead to full-time employment opportunities within the company.

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