



COLLEGE OF COMPUTER AND INFORMATION SCIENCE

Academic Year 2024 – 2025

I.T. PRACTICUM

Gamiel Paul Listanco TRIÑANES

Submitted to the Faculty of Mapúa Malayan Colleges Laguna

In Partial Fulfillment of the Requirements for the degree of

Bachelor of Science in Information Technology

OVERVIEW OF THE PRACTICUM ENGAGEMENT



iNeed Solutions Inc. is a Philippine based tech company established around 2024 that specializes in providing real time, data driven parking and mobility solutions. It was founded by Jonarc Cardines who is the current President and Managing Director of the company.

Based in Makati City, iNeed Solutions Inc is a competent player in the smart parking systems industry, catering to urban establishments such as malls, condominiums, hospitals, hotels, and other high-traffic venues. Overall, the company designs and installs solutions associated with advanced parking management systems that offer the features of QR/barcode scanning, POS systems integration, predictive analytics, and cloud-based reporting to improve the efficiency of the parking operation and user convenience.

iNeed Solutions Inc. provides a parking management system that leverages real-time data and predictive analytics to maximize space efficiency and minimize traffic. It provides the drivers with an easy way of locating the available parking place easily and an easy to use mobile application which will give real time details of parking availability and rates. Besides, there is advanced booking as well as reservation that enable motorists to reserve their parking space even before they leave their homes. The specified innovative solution also helps to avoid wasting time and resources due to frustration about parking space search.

Mission

Connect the parkers to thousands of available and accessible parking spaces anytime and anywhere all online.

Vision

Transforming all non-performing land space becomes valuable, useful, and efficiently managed for the customers, owners, cities, and for a national scale.

OUTPUT PRESENTATION

Console Applications

```
Pattern E (Tree):
    V
    VV
    VVV
    VVVVV
    VVVVVV
    VVVVVVV

Please press any key to continue.
***** Gamiel Paul L. Trihanes Pattern viewer *****

1. Start Drawing
0. Exit the Program

Please enter your choice:
-
Directory Editor Selected.

Please start writing paragraph contents to append and press enter when done:

asdasdasdas
asdadasda
asdasd
asdasd
asdadasdasd
asdadasd

lets add something here
alright
im adding now

I'm adding something this is very fun
programs
are
fun&
```

```
cd this is my new entry to my txt file
Console App 2
D:\OJ\FILES\gamelParag\APP\bin\Debug\net8.0\gamelParag.exe
GPLT Txt Editor
***** MAIN MENU *****
1. New / Overwrite Paragraph
2. Add to existing Paragraph / Append
3. View Paragraph
0. Exit the Program

Please enter your choice:
```

Console Applications

```
***** GPLT User Registration Menu *****

1. Register New User
2. Exit

Select an option (1 or 2): 1
User Registration

Enter your email: trinanesmetal@gmail.com
Enter your password: password123

Enter the 6-digit OTP sent to your email: 933718

Registration Successful!

Press Enter to return to the menu...
```

gamelDB > userDB > users_coll

Documents 1 Aggregations Schema Indexes 1 Validation

Type a query: { field: 'value' } or [Generate query +](#)

[ADD DATA](#) [EXPORT DATA](#) [UPDATE](#) [DELETE](#) [25 ▾](#)

`_id: ObjectId('6819b3900786167c247fcc9c')`
`SH : 1`
`username : "billgates@microsoftmail.com"`
`password : "iluvibm"`

`_id: ObjectId('682d1368017c4483eec25c30')`
`SH : 2`
`username : "trinanesmetal@gmail.com"`
`password : "ef9fb778bafef77e69245b89ecbc08a44a4e166c06659911881f383d4473e94f"`

Exhibit 1. Console Application Demonstration

The first set of tasks that was deployed to us was to make console applications, it started out on just printing basic patterns using symbols, then moved to reading and writing a file and then connecting to a database, and then to a real time chat application.

API Creation and Testing

The screenshot shows the Visual Studio 2022 API creation interface and the Insomnia testing interface side-by-side.

VS2022 API Creation:

- Left pane: A code editor showing a C# class definition for a User entity.
- Right pane: A MongoDB collection view showing a single document with fields like _id, Name, Birthdate, Email, etc.

Insomnia Testing:

- Top pane: A POST request to `http://localhost:5229/main/register` with a JSON body containing user registration data.
- Bottom pane: A POST request to `http://localhost:5229/main/login` with a JSON body containing login credentials.

Exhibit 2. Creating own APIs in VS2022 and testing APIs using Insomnia

For our API creation, we made use of ASP.Net's Core to create the homemade APIs in C# programming language. Which is then tested using Insomnia to verify that the APIs are responding as expected and is sending out the anticipated HTTP response. It can also be seen that the database that was utilized for all of the tasks and projects is MongoDB which is a NoSQL database, which is also document oriented.

Flow Diagram and Wireframes

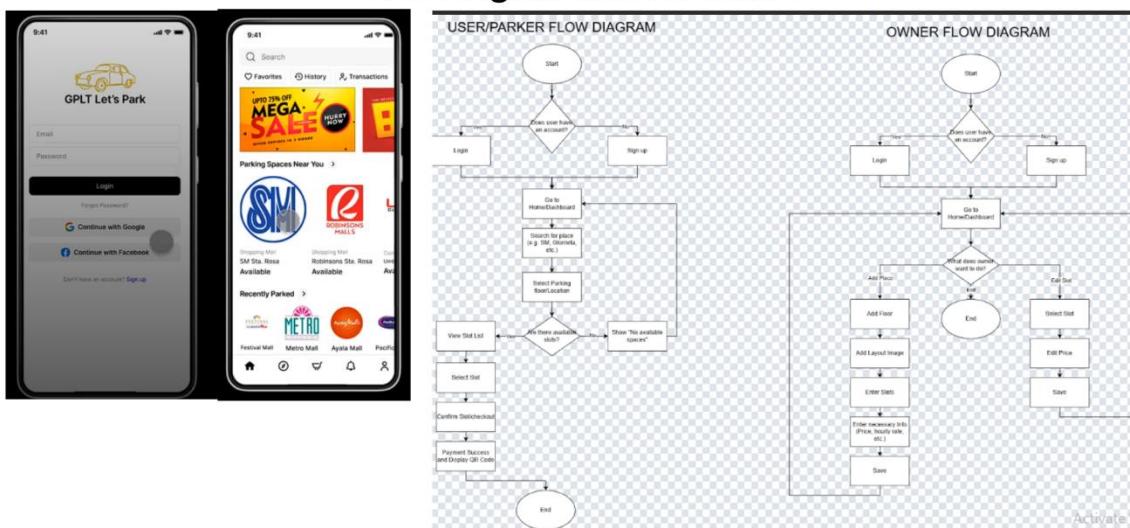


Exhibit 3. Demonstration of Wire framing and Flow Diagram

For my wire framing I have utilized Figma which is a web based application that allows the user to layout various user interfaces for platforms like android, apple, and Windows. For this particular task or demonstration. We were tasked to wire frame a mock parking application. While for the flow diagram, we used draw.io which is also a web based application that allows the user to make diagrams, sketches, and draw ideas and also has the capability to collaborate multiple users remotely.

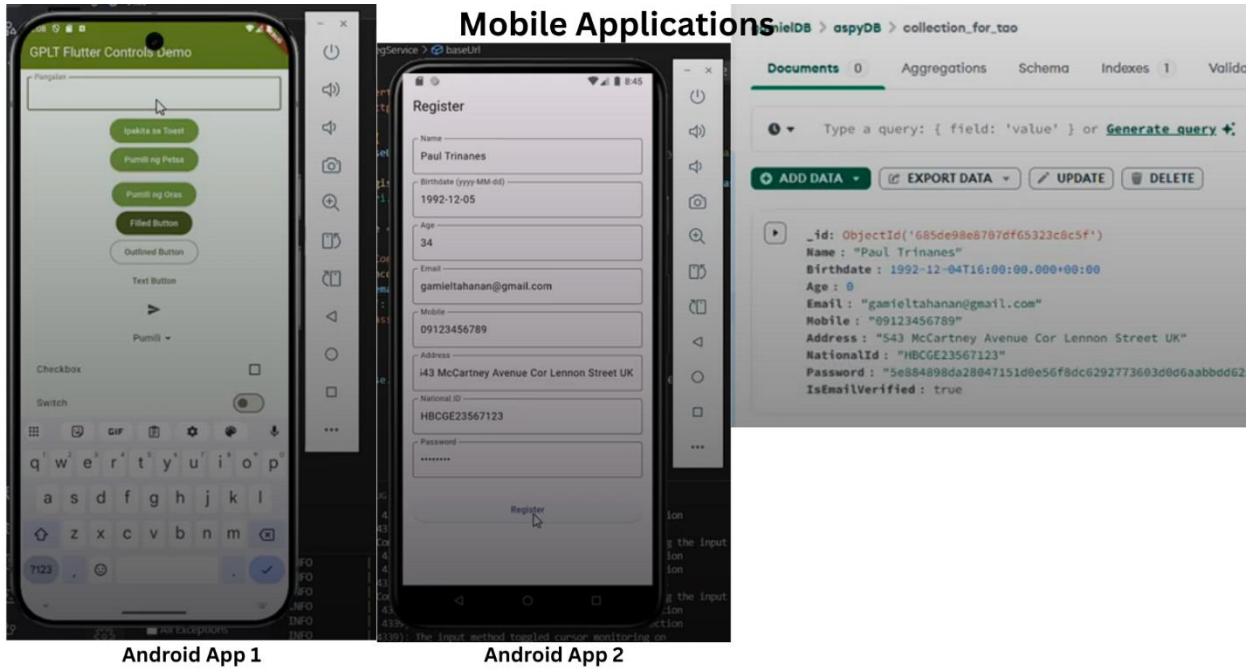


Exhibit 4. Implementation of User Registration using Flutter application.

As shown in Exhibit 5, these tasks were coded in Flutter, an open-source framework that allows me to develop applications using a single code base. It is all carried out on the Dart programming language, thus I can just create a reactive programming style and embed widgets as well. Both of the apps operate on a MongoDB database. I developed customized APIs, which are used to transfer data and retrieve data, this enabled the apps to conform to the task of dynamically and safely dealing with user registration and the storage of data.

Real-time Chat Applications

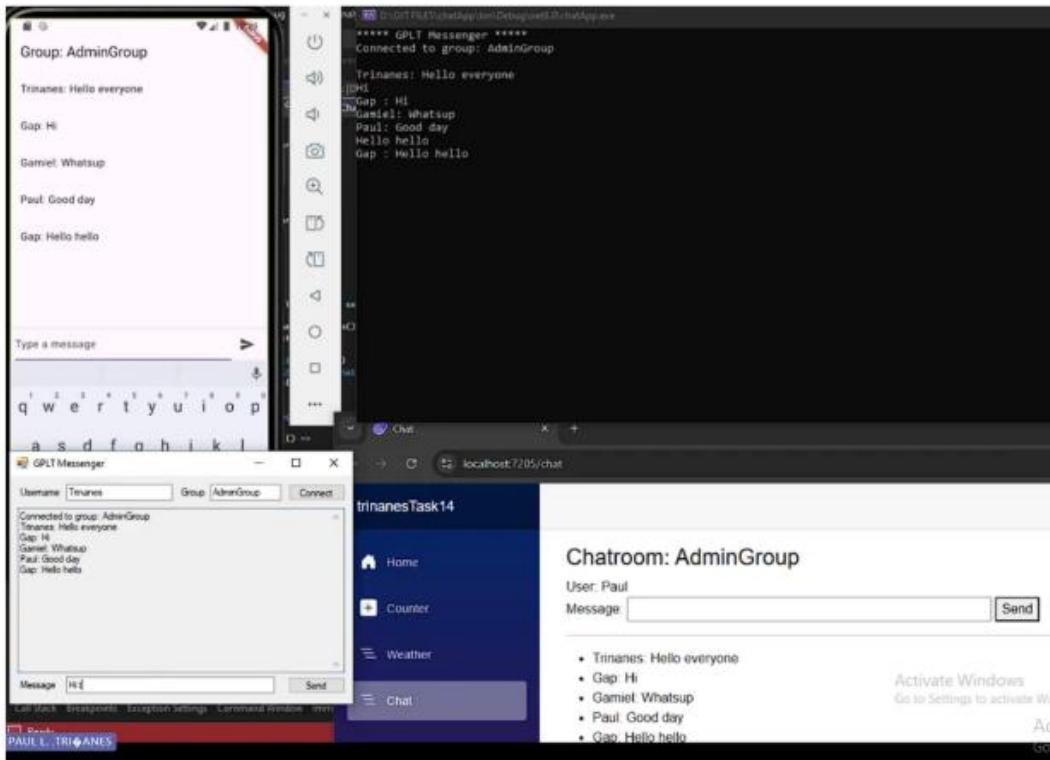


Exhibit 5. Multiplatform Real-Time Chat App Demonstration.

This exhibit is the task in which a real-time chat application used on the desktop, in the terminal, on the web, and on a mobile device. In the background, there is a Blazor app installed, it allows us to create interactive web UIs, without writing a single line of JavaScript. Blazor is run on WebAssembly and is bolted to a system wide API backend. The messages broadcasting with SignalR is done through that backend, so no matter what device or interface you are on, everyone is chatting in real-time.



Exhibit 6. User Registration Dashboard

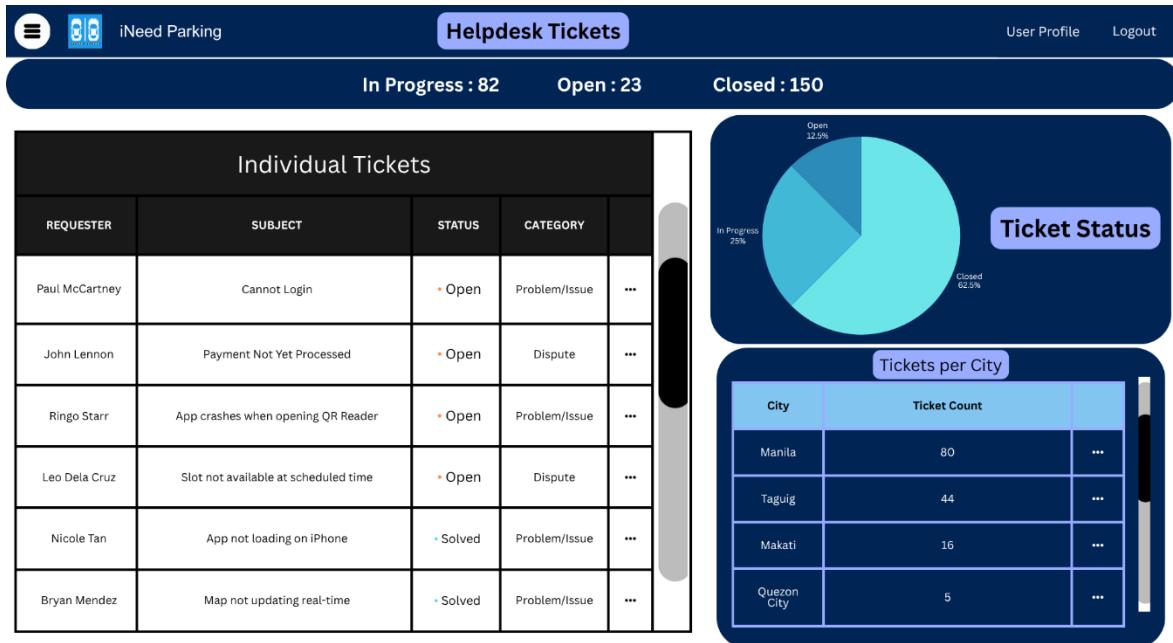


Exhibit 7. Helpdesk Tickets



Exhibit 8. Parking Wallet Transaction Page

The iNeed Parking application has a headquarters dashboard that is implemented using WinForms interface, which is a central monitoring tool used by the internal administration. It works using connection to a web API, which is in fact involved in fetching and processing real-time data, and API in its turn is connected with a MongoDB database where all the data about users, transactions, and tickets are pre-stored. Such arrangement makes smooth the integration and synchronization of the user facing application and the back-end system.

Exhibit 6, User Registration Dashboard can be used to allow administrators to filter and view the registration information based on user type, city, and account status. It gives such important figures as total owners, parkers, slots which are further devided into city. This perspective promotes the monitoring of the regional activity and tracking the establishment of new accounts.

Exhibit 7 charts Helpdesk Tickets panel, which reports support ticket data with open, in progress and closed stages and issue categories. The pie chart is used to display the distribution of issues, and the table ready of the number of tickets per city will help to

detect the areas of high-volume and popular problems.

The Exhibit 8 shows the Parking Wallet Transactions, which shows top-ups by the users and sums them by city and user type. This perception contributes to financial control and assists in identifying some oddity in use of patterns.

All such dashboards are dynamically updated based on API endpoints that reach the MongoDB collections to retrieve the latest information. Real-time updating of a database informs HQ agents in time when customer causes changes on the database either through registration of a new user or by submitting a ticket. All the system was built to keep high availability and responsiveness, which allows it to handle oversight of many areas, such as control of users, financial monitoring and technical support.

NATURE OF ASSIGNMENTS OR TASKS GIVEN

As a junior software development intern, Gamiel was assigned to the software engineering department, where he worked on multiple projects involving API development, desktop applications, mobile interfaces, and web technologies. He participated in building and consuming RESTful APIs using ASP.NET Core, designing mobile app pages in Flutter, creating chat systems using SignalR, and integrating authentication systems using JWT. He also contributed to Blazor applications and WinForms interfaces while collaborating with team members managing shared repositories and coordinating front-end and back-end integration. His tasks involved coding, debugging, UI layout design, and reviewing previous concepts to support the final stages of development.

TOTAL HOURS RENDERED

As part of the practicum requirement, students are required to complete a minimum of 486 hours. Of these, 406 hours were dedicated to demonstrating technical skills, including coding assigned tasks, researching features, writing clean and maintainable code, and preparing technical documentation. The remaining 80 hours were allotted to career planning and skills development, such as attending workshops and obtaining relevant certifications.

SYNTHESIS OF THE PRACTICUM ENGAGEMENT

LEARNINGS

After completing the practicum, Gamiel can now say he has solid, real-world software experience under his belt. During the course of the immersion, he was able to work with C#, ASP.NET Core, MongoDB, Flutter, and Blazor and get practical mileage on each of them. He was required to create and implement APIs, set local servers with the help of IIS, and communicate in real-time by means of SignalR. To add on that, he performed file management, authenticated users via JWT, and constructed mobile applications based on Dart and Flutter. Along the way, he also honed his skills at Git and implemented good coding practice on every platform.

REALIZATION

By doing all of these, some themes were recurrent: collaboration, flexibility and organized, modular, and structured coding. Since the front-end and the back-end components usually depended on each other, he learned the importance of an effective teamwork. New tools appeared, and many did, and he learned as he went along and experienced first-hand why effective communication amongst stakeholders and alignment of projects cannot be negotiated.

CONCLUSION

Altogether, the practicum presented him with an essential tech skill set along with an aspect of confidence regarding professional practices. They mostly spent their time to put into practice development concepts as applied in the real world but he could also spend hours drafting his later career. It is something that hardened his problem-solving muscles, expanded his tech stack, and prepared him to contribute to projects in the real world.

FORMS AND DOCUMENTS

FORM A

Competency-Based CV

Gamiel Paul L. Triñanes

09399444605 · gpltrinanes@gmail.com
22 J. Rizal Street Olivarez Homes, Biñan, Laguna

INFORMATION TECHNOLOGY

I am a Fourth-year student of Bachelor of Science in Information Technology seeks an On-the-Job Training (OJT) placement to use academic lessons and develop practical IT expertise. The student comes to the table with knowledge of software development alongside network administration and data handling proficiency. I aim to join a dynamic team for working on real-world projects and address problems alongside experienced staff to acquire applied learning that supports overall IT objectives. My goal is to acquire knowledge while developing growth while adding value to modern technological solutions.

KEY COMPETENCIES

- Friendly, positive attitude
- High Attention to detail
- Computer programming skills
- Knowledgeable in electronics
- Foundational Automotive Mechanic Skills
- Strong Troubleshooting Abilities
- Strong determination to learn and improve skills
- Teamwork and collaboration
- Multitasking
- Dependable and responsible

TECHNICAL SKILLS

- Programming Languages: Python, C#, C++, PHP
- Web Development: HTML, CSS
- Database Management: MySQL, MariaDB
- Operating Systems: Windows, Linux, macOS
- Mobile App Development: Android Studio, XAMARIN
- IoT Basics and Sensor Integration
- Hardware and Software Installation and Maintenance
- Version Control: Git, GitHub
- IT Support & Troubleshooting
- Cloud Platforms: AWS, Google Cloud Platform, Azure

PROFESSIONAL EXPERIENCE

Wood Fired Oven Masonry

2020 - 2022

Driver and Production Assistant

Developed and implemented a streamlined process for gathering business requirements, reducing project delivery time by 15%. Developed and implemented a standardised reporting framework, resulting in improved visibility of key performance metrics and enabling data-driven decision-making at all levels of the organisation.

EDUCATIONAL BACKGROUND

Bachelor of Science in Information Technology
Mapúa Malayan Colleges Laguna
2021 - Ongoing

Science, Technology, Engineering, and Mathematics
Mapúa Malayan Colleges Laguna
2017 - 2019

Junior High School
Ann Arbor Montessori Learning Center
2013 - 2017

CERTIFICATIONS AND AWARDS

- President's List Awardee (A.Y. 2022 – 2023)
- President's List Awardee (A.Y. 2023 – 2024)
- Dean's List, A.Y. 2021–2024 for 8 consecutive terms
- CompTIA IT Fundamentals+ (ITF+) Certification
- Certified Google Cloud Skills Boost: Cloud Computing Fundamentals Finisher
- Certified CodeChum Python Course Graduate
- Certified TESDA Diesel Engine Tune Up Course Graduate
- Philippine Driver's License – Restriction Codes: A, A1, B, B1, B2

FORM B

Endorsement Letter



28 April 2025

Dhalia Cardines

Corporate IT and Administration

iNeed Solutions Inc

2nd Floor, Wyce Business Center 9599 Kamagong Barangay San Antonio

Makati City 1203, Philippines

Dear Ms. Cardines,

The B.S. in Information Technology program of Mapúa Malayan Colleges Laguna requires their students to undergo Practicum program for a minimum of **486** hours in an academic calendar that will prepare our students to be job-ready after completing their curriculum. This program intends to enable our students to acquire and practice the knowledge and skills expected of a graduate of a B.S. IT program which, in turn, would guarantee continuous supply of IT professionals needed by your company.

We believe that your company can provide the relevant exposure necessary for our students to achieve the intended learning outcomes for the B.S. in Information Technology program. In this regard, I would like to endorse Mr. **Ganiel Paul L. Triñanes** to have his practicum activities in your company as requested.

We thank you for your confidence and trust with us and we look forward to a more meaningful linkage that is mutually beneficial to our students and your company.

With warm regards,

A handwritten signature in black ink.

ADOMAR L. ILAO, DIT

BSIT Program Chair

College of Computer and Information Science

Mapúa Malayan Colleges Laguna

a.liao@mcl.edu.ph

(049) 832-4076

Form C

Practicum Confirmation and Acceptance Form



Malayan Colleges Laguna
A MAPUA SCHOOL

REVISION NO. 00
REVISION DATE May 10, 2010

PRACTICUM CONFIRMATION AND ACCEPTANCE FORM

IMPORTANT INFORMATION

- STUDENTS ACCEPTED FOR PRACTICUM IN A HOST COMPANY WILL HAVE TO ACCOMPLISH THIS FORM.
- ASK THE PRACTICUM SUPERVISOR/ COMPANY REPRESENTATIVE TO FILL IN THE DETAILS OF THE TRAINING.
- SUBMIT TO THE PRACTICUM ADVISER/COORDINATOR PRIOR TO THE START OF TRAINING.

NAME OF STUDENT	GAMIEL PAUL LISTANCO TRINANES	STUDENT NUMBER	2021160521
COURSE CODE	IT199F	SY/TERM ENROLLED	2024-2025/3rd Term

This is to certify that GAMIEL PAUL LISTANCO TRINANES (name of student-trainee) has been accepted for practicum at iNeed Solutions, Inc. 2nd Floor, Wyce Business Center 9599 Kamagong Barangay San Antonio Makati City 1203, Philippines (name and address of establishment) and will be attached to the IT department/s for a minimum of, but not limited to 486 hours. Training will commence on April 22, 2025 and is expected to end on July 15, 2025. Attached is the list of requirements.

COMPANY REPRESENTATIVE

Dhalia T. Cardines	Admin
Signature over Printed Name	Official Designation
Engineering Department	admin@ineed.com.ph / 0917-771-7275
Department	Email and Contact Number/s
NOTED BY	5/2/2024
Signature over printed name of Practicum Coordinator	Date

COPY: (1) STUDENT, (2) HOST COMPANY, (3) PRACTICUM COORDINATOR

FORM OVPAA 030B

THIS FORM IS AVAILABLE AT THE OVPAA.

Form D

Liability Waiver



Malayan Colleges Laguna
A MAPUA SCHOOL

REVISION NO. 00
REVISION DATE May 10, 2019

STUDENT TRAINING AGREEMENT AND LIABILITY WAIVER

IMPORTANT INFORMATION

- THIS FORM IS TO BE ACCOMPLISHED AND SUBMITTED BY STUDENT TRAINEE TO THE PRACTICUM ADVISER BEFORE STARTING THE PRACTICUM.
- READ AND UNDERSTAND THE PROVISIONS OF THIS AGREEMENT AND WAIVER.
- ENSURE THAT ALL SIGNATORIES SIGN THE FORM.

I, GAMIEL PAUL LISTANCO TRIÑANES, and a student of MALAYAN COLLEGES LAGUNA (hereinafter referred to as "MCL"), do hereby voluntarily undergo on-the-job training at iNeed Solutions Inc., hereinafter referred to as the "Host Company", located at 2nd Floor, Hyve Business Center 9519 Kamaguing Barangay San Antonio Malate City 1203 Philippines, under the following terms and conditions:

a. That the practicum training will commence on April 22, 2025 and ends on July 15, 2025 and will have to complete a minimum of 486 hours required for the on-the-job training;

b. That I shall observe proper decorum and act professionally at all times and abide by the Company's rules and regulations and comply with those imposed for the training program, otherwise, I shall be excluded from further participation;

c. That in the course of my training program, I may have access to information which may be of confidential in nature and proprietary to the Company, for which I may be required to execute a confidentiality and non-disclosure agreement as a prerequisite to my participation in the training program;

d. That the time I will spend on the training program in the completion of my on-the-job training requirements will not and should not be interpreted or construed as working hours and should be regarded as non-compensable. Provided that, the Company may, as a unilateral act of liberality or generosity on their part, provide me with meal, travel, transportation allowances, accommodations, etc.;

e. That I fully understand that notwithstanding the allowances enumerated in the preceding section which I may receive, there exists no labor-management and/or employer/employee relationship between me and the Company where I will undergo my training;

f. That I shall exercise due care and diligence in the tasks assigned to me and personally be made answerable for any and all liabilities for damage to property or injury to third person, which may be occasioned by my intentional or negligent acts during the course of my on-the-job training;

g. That I shall likewise hold the Host Company and MCL free and harmless from any and all liability and responsibility for any sickness or injury to myself and third parties and damage to property which I may sustain and/or may occur at any time during the training program, including time spent in traveling to and from any and all premises and locations where I may be required to go to as part of my training program;

h. That the Company reserves the right to discontinue my training on reasonable grounds upon written notice to MCL and myself. Additionally, in the event my training program is discontinued for reasons attributable only to myself, I may be made to reimburse the Host Company for any/all the allowances, stipends, etc., which I may have received from them during and prior to the termination of my training program;

i. That in addition to my liability under section g and for the pre-termination of my training program provided for under section h hereof, I may be subjected further to disciplinary action in accordance with the school's student manual and/or be a ground for disqualification from graduation;

Signed on this 23rd day of April.

GAMIEL PAUL LISTANCO TRIÑANES
Signature over printed name of Student Trainee

WITH OUR CONSENT:

Signature over printed name of Parent/Guardian
(for minors only)

NOTED BY:

Adonal J. Bas 8/1/2018

Printed Name and Signature of Practicum Adviser/ Coordinator

Dhalia T. Cardines (iNeed Solution Inc.)

Printed Name and Signature of Host Company Representative

Form E

Host Evaluation



Malayan Colleges Laguna
A MAPUA SCHOOL

REVISION NO.: 00
REVISION DATE: May 13, 2016

STUDENT EVALUATION ON PRACTICUM HOST COMPANY AND TRAINING

IMPORTANT INFORMATION

- THIS FORM IS USED TO EVALUATE THE PERFORMANCE OF PRACTICUM HOST COMPANY BY THE STUDENT
- PRACTICUM ADVISER NOTES THE EVALUATION AND DISCUSSES RESULTS WITH THE STUDENT
- NOTED OJT PERFORMANCE EVALUATION REPORT FORMS PART OF THE PRACTICUM REPORT/ PORTFOLIO OF THE STUDENT

NAME OF HOST COMPANY	DEPARTMENT/SECTION/AREA ASSIGNED
INeed Solutions Inc.	I.T. Department
ADDRESS OF COMPANY	2nd Floor, Wyce Business Center 9599 Kamagong Barangay San Antonio Makati City 1203, Philippines

INSTRUCTIONS: Please indicate how much you agree with each statement with 1 being that you strongly disagree and 5 being that you strongly agree.

LEGEND: 5 – Strongly Agree 4 – Agree 3 – Neutral 2 – Disagree 1 – Strongly Disagree NA – Not applicable

PART I: EVALUATION ON PRACTICUM HOST COMPANY

STATEMENTS	RATING (please encircle one)
1. I was given an orientation about the company rules, regulations, and enough explanation of my practicum assignment at the beginning of the training.	5 4 3 2 1 NA
2. The employees I worked with served as resource persons, sharing ideas and materials.	5 4 3 2 1 NA
3. The people I worked with were perceptive of my needs.	5 4 3 2 1 NA
4. The practicum supervisor spent time observing my performance.	5 4 3 2 1 NA
5. The practicum supervisor provided me with enough constructive criticism.	5 4 3 2 1 NA
6. The practicum supervisor sufficiently answered my questions and clarifications.	5 4 3 2 1 NA
7. The practicum supervisor was objective when critiquing my skills.	5 4 3 2 1 NA
8. The demands placed upon me were realistic in this practicum experience.	5 4 3 2 1 NA
9. I felt comfortable in my overall relationship with the people in the host company	5 4 3 2 1 NA
10. The practicum supervisor was fair in her/his judgment of my skills.	5 4 3 2 1 NA
11. I benefited from the supervision provided by the practicum supervisor.	5 4 3 2 1 NA
12. I was given sufficient opportunities for the development of my skills and abilities	5 4 3 2 1 NA
13. The practicum supervisor served a good professional model.	5 4 3 2 1 NA
14. The company promotes a healthy working environment	5 4 3 2 1 NA

ADDITIONAL COMMENTS (STRENGTHS AND AREAS TO IMPROVE)

PART II: EVALUATION ON PRACTICUM TRAINING

STATEMENTS	RATING (please encircle one)					
1. The training permitted me to generate the minimum number of direct contact hours required within a specified timeframe.	<input checked="" type="radio"/> 5	4	3	2	1	NA
2. The training provided me with experiences that encouraged and developed my interpersonal skills.	5	<input checked="" type="radio"/> 4	3	2	1	NA
3. The training provided me with experiences that encouraged and developed my technical skills.	<input checked="" type="radio"/> 5	4	3	2	1	NA
4. The training provided me with experiences that encouraged and developed my analytical skills.	<input checked="" type="radio"/> 5	4	3	2	1	NA
5. The training provided me with experiences that encouraged and developed my management skills.	<input checked="" type="radio"/> 5	4	3	2	1	NA
6. The training provided me with experiences that encouraged and developed my customer relations skills.	5	<input checked="" type="radio"/> 4	3	2	1	NA
7. Facilities and equipment are adequate and made available for the training	<input checked="" type="radio"/> 5	4	3	2	1	NA
8. Overall, the establishment provided me with a good on-the-job training	<input checked="" type="radio"/> 5	4	3	2	1	NA

ADDITIONAL COMMENTS (STRENGTHS AND AREAS TO IMPROVE)

Trinanes, Gamiel Paul L.

SIGNATURE OVER PRINTED NAME OF STUDENT

PAGE 2 OF 2
FORM OVPA A 030K

COPY: (1) STUDENT; (2) PRACTICUM COORDINATOR/PROGRAM CHAIR

THIS FORM IS AVAILABLE AT THE OVPA.

Form F

Training Plan



Malayan Colleges Laguna
A MAPUA SCHOOL

REVISION NO.
REVISION DATE: May 17, 2016

TRAINING PLAN

NAME	Gamiel Paul L. Triñanes	COURSE CODE	IT199F
PROGRAM & STUDENT NO.	BSIT - 2021160521	COURSE TITLE	IT Practicum
STUDENT OUTCOMES			
<p>CO1. Identify, analyze, and design business process solutions to the problem faced by the organization.</p> <p>CO2. Apply the different concepts of systems analysis and design, software engineering, database management, and programming courses in the problem-solving process in the organization, and</p> <p>CO3. Acquire new knowledge and experience while in the organization.</p>			
AREAS / PHASES OF TRAINING AND TIME ALLOTMENT			
<p>A. Demonstration of Technical Skills (Software Development, Research, and Implementation) – 406 hours</p> <p>B. Career Planning and Skills Development – 80 hours</p>			
EVALUATION GUIDELINES & COURSE OUTCOMES			
DEMONSTRATION OF SOFT SKILLS (40%)	DEMONSTRATION OF TECHNICAL SKILLS (60%)		
KEY AREAS	KEY AREAS		
COMMUNICATION SKILLS (20%) Relate to co-trainees/supervisors terminologies and rules Recite procedures and instructions needed for the tasks Identify and describe safety signs and symbols Ask critical questions related to the tasks Produce well-written regular and incident reports Prepares and presents reports using Information and Communication Technology (ICT)	Demonstration of Technical Skills (40%) <ul style="list-style-type: none"> • Able to integrate and implement new modules (10%) • Able to deliver modules on time (10%) • Able to write code that is easy to understand and reusable (10%) • Able to identify, analyze, and resolve issues or bugs during development (5%) • Able to document features, workflows, and technical details clearly and consistently (5%) Career Planning and Skills Development (20%) <ul style="list-style-type: none"> • Able to understand and apply workplace frameworks and project management principles and adapt to emerging technologies and understand their relevance in the modern workplace (10%) • Able to set career goals and create a personal development plan, and identify personal strengths, demonstrate self-awareness, and develop leadership potential (10%) 		
PROFESSIONAL DEPORTMENT (20%) Observes proper grooming and attire Reports to work regularly on time and as necessary, even beyond prescribed working hour Acts according to the job description given by the company Willing to accept new tasks apart from the usual routine and responsibilities Delivers quality output on time Demonstrates respect for different individuals			
INITIATIVE (+5%) Volunteers to perform tasks beyond routine tasks	INITIATIVE (+5%) Volunteers to perform tasks beyond routine tasks		
CONFORME	CONSENT (FOR MINORS ONLY)	NOTED BY	ENDORSED BY
 Gamiel Paul L. Triñanes/ 4-25-2025 SIGNATURE OVER PRINTED NAME OF STUDENT /DATE	 Jonarc S. Cardines / 2May25 SIGNATURE OVER PRINTED NAME OF PRACTICUM SUPERVISOR /DATE	 SIGNATURE OVER PRINTED NAME OF PRACTICUM ADVISOR /DATE	 SIGNATURE OVER PRINTED NAME OF PROGRAM CHAIR /DATE

COPY (1) STUDENT (2) HOST COMPANY (3) PRACTICUM COORDINATOR

THIS FORM IS AVAILABLE AT THE OVPAA

FORM OVPAA-030D

Form G

Weekly Journal – Week 1



REVISION NO.: 00
REVISION DATE: May 10, 2016

DAILY JOURNAL

IMPORTANT INFORMATION

- INCLUDE TASK ASSIGNMENTS OR MOVEMENTS, REFLECTION ON THE DAY'S NEW LEARNING, ACCOMPLISHMENT, CHALLENGES FACED AND HOW YOU RESPONDED, OBSERVATIONS AND RECOMMENDATIONS ON THE IMPROVEMENT OF SYSTEMS / OPERATION / MANAGEMENT, ETC.
- SCANNED COPIES OF THIS FORM SHALL BE SUBMITTED ON A WEEKLY BASIS THROUGH APPROVED LMS.
- HARD COPIES OF THIS FORM SHOULD BE COMPILED AS PART OF THE STUDENT'S PORTFOLIO.

DATE	April 22, 2025 - April 25, 2025	AREA ASSIGNMENT	SOFTWARE DEVELOPMENT
TASK	Tasks 1 - 4	SHIFT/TIME	8:00AM - 5:00PM

April 22, 2025:

We had our first meeting with our supervisor and the other employees; they introduced the tasks we will be handling during the OJT and gave us an overview of the skills and knowledge we are expected to gain. On the same day, we were assigned our first task, which required us to get familiar with the basics and foundations of C#.

April 23, 2025:

Two new tasks were given to us; one involved printing patterns in C#, and the other focused on basic file reading and writing, with these tasks we were reviewed of our foundations in C#.

April 24, 2025:

We received Task 4, which involved using the Windows Task Scheduler. We had to create a C# console application that would log the time into a text file. Which gave us the learnings on how to create our own .exe file to be loaded on the task scheduler to have a task that reoccurs based on the conditions applied

April 25, 2025:

In the morning, we attended a seminar at school that focused was about job hunting and the strategies to succeed to. In the afternoon, Then after a meeting was called to discuss the next task and the prerequisite knowledge to accomplish it

TRAINEE'S SIGNATURE

Form H

Weekly Journal – Week 2



REVISION NO.: 00
REVISION DATE: May 10, 2016

DAILY JOURNAL

IMPORTANT INFORMATION

- INCLUDE TASK ASSIGNMENTS OR MOVEMENTS, REFLECTION ON THE DAY'S NEW LEARNING, ACCOMPLISHMENT, CHALLENGES FACED AND HOW YOU RESPONDED, OBSERVATIONS AND RECOMMENDATIONS ON THE IMPROVEMENT OF SYSTEMS / OPERATION / MANAGEMENT, ETC.
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DATE	April 28, 2025 - May 2, 2025	AREA ASSIGNMENT	SOFTWARE DEVELOPMENT
TASK	Tasks 5 - 9	SHIFT/TIME	8:00AM - 5:00PM

April 28, 2025:

Two tasks were given; Task 5 focused on reading and writing CSV files, while Task 6 involved sending scheduled emails via C# Console App in tandem with Task Scheduler through SMTP. I was eager to work on Task 6, revisiting how to send email messages through my app. This is useful in account creation and credential verification for my future projects

April 29, 2025:

One new task was given to us, Task 7, where we had to restructure Task 2 using Object-Oriented Programming, organizing the code with functions and interfaces. Also MongoDB was introduced to us. as this was the database platform that our projects will utilize, MongoDB changed the way I viewed databases, as it had a different structure as compared to MySQL.

April 30, 2025:

We were given a new task, Task 8, which involved using MongoDB to perform basic CRUD operations. I was impressed with how user-friendly MongoDB was compared to traditional relational databases like MySQL; the queries were much simpler, and the data format resembled JSON documents, which made it easier to work with. I'm starting to prefer MongoDB over MySQL because of its simplicity and efficiency.

May 2, 2025:

Another task was introduced, Task 9, where we had to create a basic user registration system that connects to a MongoDB collection, along with OTP authentication through email. This task introduced the basics of form collection and user verification, as it asks the users for details, and to prove their identity via the OTP code sent to their entered e-mail.

TRINEE'S SIGNATURE

Form I

Weekly Journal – Week 3



REVISION NO.: 00
REVISION DATE: May 10, 2016

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DATE	May 5, 2025 - May 9, 2025	AREA ASSIGNMENT	SOFTWARE DEVELOPMENT
TASK	Tasks 10 - 13	SHIFT/TIME	8:00AM - 5:00PM

May 5, 2025:

Another task was given the tenth task taught us how to make and launch locally our own APIs using ASP.Net. Also HTTP API's are revisited which are POST and GET. This is a new approach because in our classes in MMCL, XAMPP was utilized to have a RESTful approach in which API's was coded using PHP. This improved us because it provided us another approach to launching API's

May 6, 2025:

Task 10 was continued, this time applying PUT and DELETE methods. It was a good opportunity to practice building complete CRUD functionality. Learning ASP.NET Core for API development gave me a clearer view of how some web services are structured.

May 7, 2025:

We started Task 11, where we built CRUD APIs using MongoDB for a simple user registration system. It involved creating and managing users and sending OTPs via email for verification. This task helped reinforce both API development and the practical use of MongoDB in real-world scenarios.

May 8, 2025:

We began Task 12, which involved uploading different file types using the APIs, which were then retrieved using POSTMAN and INSOMNIA to test if it uploaded successfully

May 9, 2025:

We were assigned Task 13, where we had to restructure the APIs from Task 11 and Task 12. This time, we used a Console App to consume the APIs, and we made use of interfaces to keep the code organized and modularized. This task gave me an insider look on what programming paradigms and coding styles are all about

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Form J

Weekly Journal – Week 4



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DATE	May 13, 2025 - May 16, 2025	AREA ASSIGNMENT	SOFTWARE DEVELOPMENT
TASK	Tasks 14 - 18	SHIFT/TIME	8:00AM - 5:00PM

May 13, 2025:

Task 14 was given, in which ASP.NET Core SignalR with Blazor was introduced. The goal was to make a realtime chat platform that both a web app and a console app can communicate with each other. My takeaway for the practical application of this task is that it can be used in a helpdesk setup where users can chat with support personnel if they need so

May 14, 2025:

For Task 15, Flutter via VSCode for mobile development was introduced. And how instances works and various form controls are taught. Compared to Xamarin, Flutter integrates both UI and logic in a single file, which presented a different development approach. While Xamarin has a separate XML file for the layout.

May 15, 2025:

We began Task 16, which involved designing a UI wireframe and workflow diagram for an upcoming mobile application project. This task helped establish the visual and functional layout before diving into actual development. I used figma for this to make a very accurate simulation or representation on how it would look like on a mobile phone

May 16, 2025:

Tasks 17 and 18 were introduced. Task 17 involved exploring Flutter's UI components and basic controls, while Task 18 focused on building mobile layouts and implementing navigation. These tasks deepened our understanding of Flutter's widget system and overall app structure, forming the groundwork for future mobile app development.

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Form K

Weekly Journal – Week 5



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DATE	May 19, 2025 - May 23, 2025	AREA ASSIGNMENT	SOFTWARE DEVELOPMENT
TASK	Tasks 19 - 23	SHIFT/TIME	8:00AM - 5:00PM

May 19, 2025:

We began Task 19, which focused on hosting and managing a Web API using IIS. For this task, we deployed the API from Task 13 to IIS, allowing it to run continuously and be accessible anytime. This gave us practical experience in managing web applications through local hosting.

May 20, 2025:

Task 20 is all about making a user registration instance via flutter by utilizing the API from Task 13. This opened the doors for me in which, whether mobile or web or any platform that has the capability to handle HTTP processes like get, post, etc. can interconnect with each other.

May 21, 2025:

On this date Task 21 was given, which involved setting up a real-time chat between various platforms. Windows based (WinForms), Web App (Blazor), Console App, and Mobile (Flutter), all inter-connected using SignalR.

May 22, 2025:

We continued with Task 22, building on the previous day's work by finalizing the cross-platform chat system. This task helped us understand how SignalR could be used to enable real-time communication across various applications built with different technologies.

May 23, 2025:

We began Task 23, which focused on applying Java Web Token Authentication and calling the APIs from task 13. Beforehand I was not familiar with JWT but with trial and error and online resources, I can attest that it is also another way in tightening up the security in accessing and utilizing my API's especially if sensitive information is involved.

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Form L

Weekly Journal – Week 6



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DATE	May 26, 2025 - May 30, 2025	AREA ASSIGNMENT	SOFTWARE DEVELOPMENT
TASK	Task 24 and Preparation for Final Output	SHIFT/TIME	8:00AM - 5:00PM

May 26, 2025:

We started Task 24, which involved creating a user registration system using a Blazor Web App connected to the API from Task 13. This was my first time working with Blazor, So it was a challenge and a learning curve to learn, as it is very different from the typical ASP.Net web development that I am accustomed to but I managed to push through with it using video tutorials and blogs. , I decided to make the layout or the frontend very simple as the emphasis of this task relies on the backend which is to inter connect all the features from task 13 with the Blazor Web App, into a fully pledged app that can receive users upload and verify their identity. Blazor Web Apps can be surely useful and can be used if ASP.Net is not available or if the circumstance only caters to Blazor. This knowledge will be useful in time.

May 27–30, 2025:

No specific tasks were assigned during this period. We spent most of the time organizing groupings for the upcoming final project. During the downtime, I also reviewed previously discussed concepts and tasks to better prepare for the development phase of our final output.

ANSWER The answer is 1000.

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Form M

Weekly Journal – Week 7



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DATE	June 2, 2025 - June 6, 2025	AREA ASSIGNMENT	SOFTWARE DEVELOPMENT
TASK	Groupings and Planning	SHIFT/TIME	8:00AM - 5:00PM

June 2 - 6, 2025:

During this week, no tasks were given. We were informed that 24 was the last task, during these days the upper management grouped the interns according to their strengths and weaknesses, it was during these days that the groupings was finalized and which module we were to be assigned to, for me I was tasked for the Head Quarters monitoring application that has the capability to view and monitor the helpdesk tickets, the metrics of the applications, the user data. It was also during these days that the expectations on the application to be developed was set.

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Form N

Weekly Journal – Week 8



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DATE	June 9, 2025 - June 13, 2025	AREA ASSIGNMENT	SOFTWARE DEVELOPMENT
TASK	Planning Stage for App Development	SHIFT/TIME	8:00AM - 5:00PM

June 9 - 13, 2025:

On the duration of the days above, me and my team were tasked to create user stories, use cases, and a wireframe and User Interface sketch, to layout the visualized output and to set the expectations on what the dashboard will looklike, what the user will see. It is also here that the supervisor and upper management, and us interns throw our drafts back and forth and in return they tell us what to adjust what needs to be seen and what needs to be omitted. This is a very humbling experience as there are elements that are good enough for me and would like to put onto the dashboard, but in the end it is the client and upper management that makes the final decision, this is a prime example and a glimpse in project development in the industry.

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Form O

Weekly Journal – Week 9



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DATE	June 16, 2025 - June 20, 2025	AREA ASSIGNMENT	SOFTWARE DEVELOPMENT
TASK	Development Stage	SHIFT/TIME	8:00AM - 5:00PM

June 16 - 20, 2025:

For this week me and my team started developing the front end of the HeadQuarters Dashboard, to offset the time as the APIs and database are still being setup by the other team. The Winforms' layout is fixed to match the proposed UI and containers and placeholders are put up to mimic the data to be presented. This is a great review on making a winforms look modern despite it being an old but stable form of application.

I have read and understood the terms of the contract.

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Weekly Journal – Week 10



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DATE	June 23, 2025 - June 27, 2025	AREA ASSIGNMENT	SOFTWARE DEVELOPMENT
TASK	Preparation for Data	SHIFT/TIME	8:00AM - 5:00PM

June 23 - 27, 2025:

The UI layout for the Headquarters Dashboard has been finalized based on the proposed design. While the backend and API development are still ongoing, we focused on refining the front-end components and ensuring that the placeholders and containers are properly aligned for seamless data integration. During this time, we also prepared the necessary bindings and logic flow to make the transition to a fully functional dashboard smoother once the backend is ready.

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Weekly Journal – Week 11



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DATE	June 30, 2025 - July 4, 2025	AREA ASSIGNMENT	SOFTWARE DEVELOPMENT
TASK	WinForms UI Finalization	SHIFT/TIME	8:00AM - 5:00PM

June 30 - July 4, 2025:

In this week, we have been working on enhancing the progress of the WinForms Headquarters Dashboard. The design was completed and the work was aimed at preparing it to backend integration. We prepared the logic of connecting the API and the database in the needed order, waiting to have complete access to the main project repository. This was not the only activity that we engaged in: we started going over charting elements as well in anticipation of incorporating a pie chart that will present simplified data in the graphical form. This time gave us a chance to develop the frontend logics and have everything in place so that it could easily be bound to data by the time we acquire the backend.

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Form R

Weekly Journal – Week 12



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DATE	July 7, 2025 - July 11, 2025	AREA ASSIGNMENT	SOFTWARE DEVELOPMENT
TASK	API Connection Setup	SHIFT/TIME	8:00AM - 5:00PM

July 7-11, 2025:

This week was focused on finishing the rest of the WinForms application. We were able to do the finishing touches in what concerns the API connection environment as well as structuring the interface to the database so that it is compatible with the current endpoints of the main repository. Although the data is not live yet, the placeholders and handlers are provided, the part of the pie chart component is set up and is live to be implemented now. The project team as well took time to look through everything that had been done and contributed so as to document and even deploy where necessary ensuring the final dashboard would be fully functional after the connection with the live data.

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