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தேசிய பயிலுநர் கைத்தொழில் பயிற்சி அதிகாரசபை
NATIONAL APPRENTICE AND INDUSTRIAL TRAINING AUTHORITY



DAILY DIARY
UNDERGRADUATE / DIPLOMA
INDUSTRIAL TRAINING

Issued No: 4

Issued Date: 22.02.2023

Doc.No : SIT/PL/Fm/15

NAITA/SIT/ UOC / FOT/ B.ICT /2025

APPRENTICE'S DAILY DIARY

Name: **H. S. P. D. Nilnuwan**

Apprentice's Private Address: **Kirambagawatta, Gatara, Kamburupitiya.**

Contact Phone Number: **0786569924**

Category: **Special Industrial Training.**

Field/Trade of Training: **Information & Communication Technology.**

Registration Number given by the University/Institute/College: **2021/T/01224**

Registration Number given by the NAITA:

Name of Training Establishment: (1.) **Sunquick Lanka Pvt Ltd**

Period of Training

From: **2025/02/03** To: **2025/04/30**

(2.)

Name and Address Of Establishment	Workshops/ Worksites	Period		Signature of Officer In Charge (With Rubber Stamp)	Designation
		From	To		
Sunquick Lanka Pvt Ltd Rathnapura Road, Munagama, A8, Horana, Sri Lanka.		2025/02/03	2025/04/30		Software Engineer

WEEK NO :.....1.....

FOR THE WEEK ENDING		TRAINING LOCATION
Sunday ...09... /...02.. /..2025...	Sunquick Lanka Pvt Ltd....
Day	Date	BRIEF DESCRIPTION OF THE WORK CARRIED OUT
Monday	2025/02/03	<ul style="list-style-type: none"> Set up the development environment by installing essential tools: VS Code, DBeaver, Postman, XAMPP, and Android Studio. Retrieved the project repository from Azure DevOps. Got a walkthrough of the ERP system and its structure.
Tuesday	2025/02/04	---- National Day ----
Wednesday	2025/02/05	<ul style="list-style-type: none"> Detailed explanation of company processes via ERP system Took time to understand how the system works.
Thursday	2025/02/06	<ul style="list-style-type: none"> factory visit to observe live company operations to better understand ERP system
Friday	2025/02/07	<ul style="list-style-type: none"> Started self study of CodeIgniter 4, DBeaver, Ubold Theme, and MVC architecture
Satur day	2025/02/08	---- Weekend Holiday ----
Sunday	2025/02/09	---- Weekend Holiday ----

DETAILS AND NOTES OF WORK CARRIED OUT, PROBLEMS ENCOUNTERED AND HOW SOLVED ETC., DIMENSIONS AND SKETCHES TO BE GIVEN WHEREVER POSSIBLE

This week marked the beginning of the training and development process. The development environment was successfully set up by installing all required tools including VS Code, DBeaver, Postman, XAMPP, and Android Studio. The project repository was cloned from Azure DevOps, and an initial walkthrough of the company's ERP system (web and mobile) was provided to gain an understanding of its structure and functionality. A comprehensive explanation of company workflows was also delivered through the ERP system interface. To enhance understanding, a factory visit was arranged where real-time operations were observed in alignment with the ERP flow. Toward the end of the week, self-study began on key technologies and frameworks used in the system, including CodeIgniter 4, DBeaver, the Ubold UI Theme, and the MVC architecture.

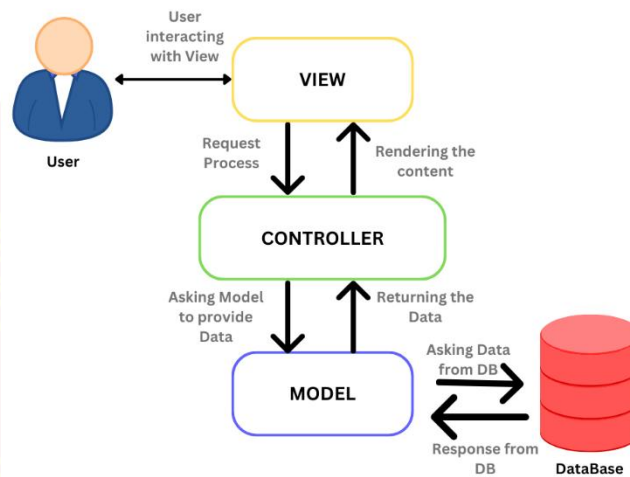
understanding CodeIgniter 4, a PHP-based MVC framework for backend development; DBeaver, a database management tool for interacting with MySQL databases; the Ubold Theme, a responsive UI admin template used in the ERP system's front end; and the overall MVC (Model-View-Controller) architecture to grasp the application's structural design and data flow.



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Model-View-Controller (MVC) Architecture:

- **Model:** handles data and business logic, such as retrieving and updating information in the database.
- **View:** manages the user interface elements that users interact with.
- **Controller:** serves as a bridge between Model and View, processing user input, updating data, and rendering output.



Challenges in understanding the ERP workflows were addressed through system demos and the practical exposure provided during the factory visit.

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WEEK NO :.....2.....

FOR THE WEEK ENDING		TRAINING LOCATION
Sunday ...16... /...02.. /..2025...	Sunquick Lanka Pvt Ltd....
Day	Date	BRIEF DESCRIPTION OF THE WORK CARRIED OUT
Monday	2025/02/10	<ul style="list-style-type: none"> Continued learning CodeIgniter 4. Focused on MVC structure and project workflow.
Tuesday	2025/02/11	<ul style="list-style-type: none"> Practiced MVC architecture using CodeIgniter 4, gaining a clear understanding of how routes connect to controllers and how controllers manage view rendering.
Wednesday	2025/02/12	---- Nawam Full Moon Poya Day ----
Thursday	2025/02/13	<ul style="list-style-type: none"> Developed models and connected them to a sample MySQL database, successfully retrieving and displaying data on web pages.
Friday	2025/02/14	<ul style="list-style-type: none"> Analyzed a real project to understand coding patterns, utilized technologies, and the overall project file structure.
Saturday	2025/02/15	---- Weekend Holiday ----
Sunday	2025/02/16	---- Weekend Holiday ----

DETAILS AND NOTES OF WORK CARRIED OUT, PROBLEMS ENCOUNTERED AND HOW SOLVED ETC., DIMENSIONS AND SKETCHES TO BE GIVEN WHEREVER POSSIBLE

Throughout the week, continued focused learning and hands-on implementation of CodeIgniter 4, with an in-depth emphasis on mastering its MVC (Model-View-Controller) architecture and seamless integration with MySQL databases. Gained practical knowledge of CodeIgniter's routing mechanism by mapping URI requests to specific controller methods and ensuring smooth navigation between pages.

Built and structured demo models representing database tables and linked them effectively to a MySQL backend using CodeIgniter's built-in Query Builder and Model class extensions. Implemented full CRUD functionality—Create, Read, Update, and Delete—across various data sets, ensuring data validation, proper request handling, and clean view rendering.

Additionally, implemented RESTful API endpoints for the demo project using CodeIgniter 4's routing and controller mechanisms, and thoroughly tested the API operations using POSTMAN, verifying JSON responses, HTTP status codes, and data integrity for each operation.

Developed controller logic to manage data flow between the models and views and used Blade-like templating techniques in CodeIgniter to dynamically render data into reusable UI components. Practiced creating forms, handling form submissions, and managing user input validation both server-side and in the view layer.

In addition to technical implementation, conducted an analysis of a real enterprise-level ERP project built with CodeIgniter, examining project file structures, naming conventions, service layers, helper functions, and middleware usage. I studied how different modules interact and how business logic is separated for maintainability and scalability. Identified integration points with third-party libraries and observed how user roles and permissions were handled within the system.



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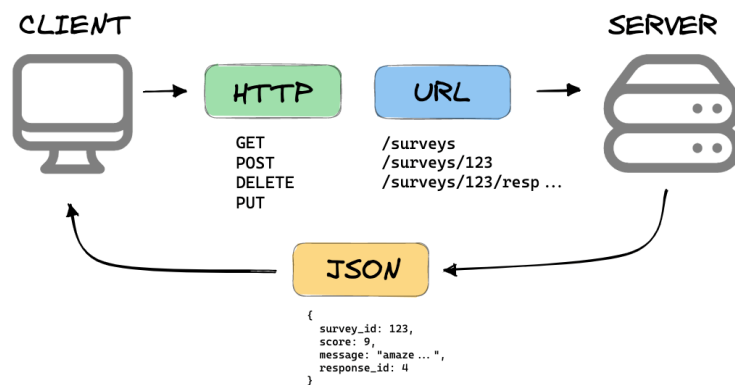
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Problems Encountered and Solutions:

- **Issue:** REST API endpoints returned incorrect HTTP status codes or empty responses during Postman testing.

Solution: Reviewed controller logic and adjusted response formatting using CodeIgniter's `response()->setJSON()` method. Used proper HTTP verbs (GET, POST, PUT, DELETE) and confirmed routing paths in `app/Config/Routes.php`

WHAT IS A REST API?



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WEEK NO :.....3.....

FOR THE WEEK ENDING		TRAINING LOCATION
Sunday ...23... /...02.. /..2025...	Sunquick Lanka Pvt Ltd....
Day	Date	BRIEF DESCRIPTION OF THE WORK CARRIED OUT
Monday	2025/02/17	<ul style="list-style-type: none"> Studied full-stack fundamentals using NestJS and Angular. Focused on NestJS architecture: controller-service-repository pattern. Learned Angular basics: components, modules, data binding.
Tuesday	2025/02/18	<ul style="list-style-type: none"> Connected Angular frontend with NestJS backend. Learned to create a simple NestJS API and fetched data via Angular HttpClient. Handled CORS, configured API base URLs, and managed service-based requests.
Wednesday	2025/02/19	<ul style="list-style-type: none"> Applied modular structure in Angular using feature modules. Integrated NestJS REST APIs for dynamic data.
Thursday	2025/02/20	<ul style="list-style-type: none"> Practiced Angular service injection and form handling.
Friday	2025/02/21	<ul style="list-style-type: none"> Tried to Design simple mock UI screens using Angular Material. Built tables, filters, and navigation for production/ERP data.
Satur day	2025/02/22	---- Weekend Holiday ----
Sunday	2025/02/23	---- Weekend Holiday ----

DETAILS AND NOTES OF WORK CARRIED OUT, PROBLEMS ENCOUNTERED AND HOW SOLVED ETC., DIMENSIONS AND SKETCHES TO BE GIVEN WHEREVER POSSIBLE

This week, the focus was on laying the groundwork for full-stack development using NestJS for the backend and Angular for the frontend. The primary goal was to establish a solid backend logic and data management structure, with simple UI components for entering and displaying data. The key activities included:

- **Studying Full-Stack Fundamentals:** Gained a foundational understanding of NestJS and Angular frameworks. Focused on the backend logic of NestJS, particularly the controller-service-repository pattern, and explored the basics of data binding and component interaction in Angular.
- **Backend and Frontend Connection:** Established the connection between the Angular frontend and NestJS backend. Implemented a basic API in NestJS and used Angular's HttpClient to fetch data from it. Configured CORS settings and API base URLs to ensure smooth communication between the frontend and backend.
- **Simple UI Implementation:** Designed simple user interfaces in Angular to allow data entry and display. The focus was on ensuring the UI was functional and straightforward to support data interaction, rather than on professional design. This UI served as a basic interface for testing backend logic and data flow.



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Problems Encountered and Solutions:

- **CORS Issues:** Encountered difficulties with CORS when trying to fetch data from the NestJS backend to the Angular frontend, leading to blocked API calls.
- **Solution:** Configured CORS settings in the NestJS backend to allow cross-origin requests from the Angular frontend, ensuring smooth communication between the two.
- **Backend Logic and Data Handling:** The primary challenge was ensuring the backend could handle the data efficiently while providing a simple API for the frontend.

Solution: Focused on clean and structured backend code, ensuring the proper handling of API routes, data processing, and response management. This setup was optimized for future scaling and potential feature additions.



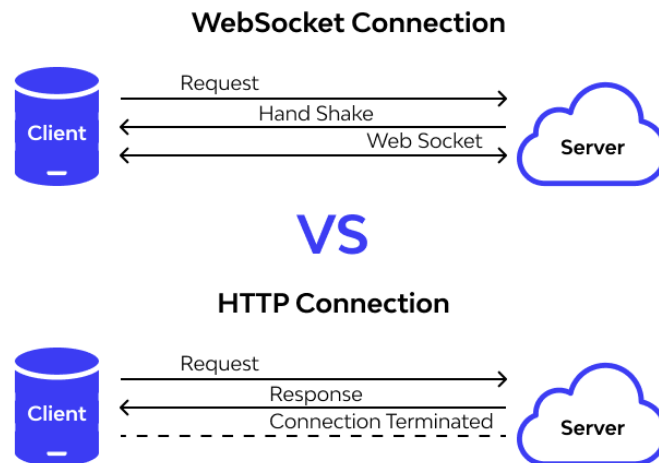
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WEEK NO :.....4.....

FOR THE WEEK ENDING Sunday ...02... /...03.. /..2025...		TRAINING LOCATIONSunquick Lanka Pvt Ltd....
Day	Date	BRIEF DESCRIPTION OF THE WORK CARRIED OUT
Monday	2025/02/24	<ul style="list-style-type: none">Studied how to create a notifications module using NestJS and WebSocket.
Tuesday	2025/02/25	<ul style="list-style-type: none">Explored ways to integrate the NestJS WebSocket notification system with an existing CodeIgniter backend
Wednesday	2025/02/26	<ul style="list-style-type: none">Successfully developed a real-time note submission and notification feature using NestJS and WebSocket.
Thursday	2025/02/27	<ul style="list-style-type: none">Reviewed WebSocket event handling logic to improve stability and reliability of message delivery.
Friday	2025/02/28	<ul style="list-style-type: none">Continued fixing WebSocket issues, especially related to connection persistence and reconnection strategies.
Satur day	2025/03/01	---- Weekend Holiday ----
Sunday	2025/03/02	---- Weekend Holiday ----



During this week, the primary focus was on the development and debugging of a real-time notification system using Nest.js and WebSocket, with integration into a CodeIgniter project. The key achievements included:

Building a Notification Module: Studied and developed the core structure for a notification system using WebSocket in Nest.js. This involved implementing the controller-service-repository pattern to handle real-time messages and integrate with a CodeIgniter backend for bidirectional communication.

Integrating WebSocket with CodeIgniter: Explored how to link the WebSocket service from Nest.js with the CodeIgniter project, ensuring seamless real-time communication between the two.

Real-time Note Submission System: Developed a functionality where notes could be submitted, and notifications were instantly sent to relevant users, ensuring real-time updates were delivered promptly.


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Problems Encountered and Solutions:

- **Message Loss:** Initially, there were instances where messages were lost during a client disconnect, especially in the case of dropped connections.
Solution: Implemented a message buffering system to store messages temporarily and ensure that they were delivered once the client reconnected.
- **CORS Issues:** Cross-Origin Resource Sharing (CORS) errors occurred when trying to connect WebSocket clients from different origins (Nest.js and CodeIgniter servers).
Solution: Adjusted the CORS settings on both the Nest.js and CodeIgniter servers to allow WebSocket communication across different domains.
- **Duplicate Messages:** There were cases of duplicate messages being sent to users.
Solution: Introduced unique message IDs and tracking mechanisms to prevent message duplication and ensure only one message was delivered to each user.



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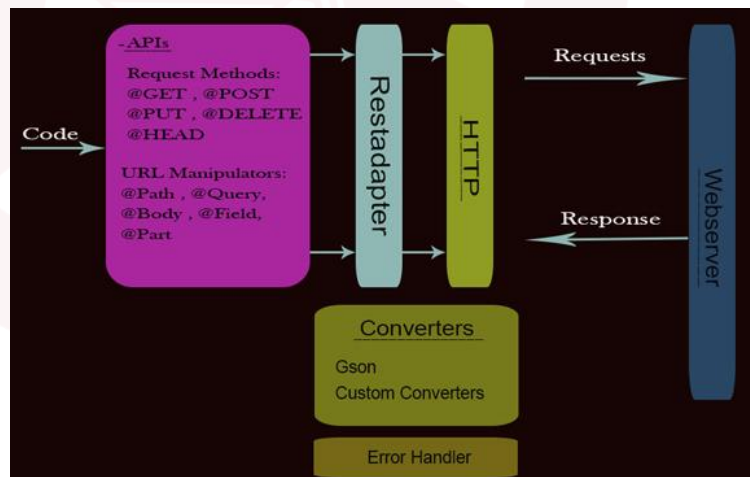
WEEK NO :.....5.....

FOR THE WEEK ENDING		TRAINING LOCATION
Sunday ...09... /...03.. /..2025...	Sunquick Lanka Pvt Ltd....
Day	Date	BRIEF DESCRIPTION OF THE WORK CARRIED OUT
Monday	2025/03/03	<ul style="list-style-type: none"> Shifted focus to Android app development using Java. Learned to use Logcat and the Android debugger for identifying and fixing runtime issues.
Tuesday	2025/03/04	<ul style="list-style-type: none"> Studied the Android project file structure and common coding conventions. Explored Activity lifecycle and how different components interact in a real project.
Wednesday	2025/03/05	<ul style="list-style-type: none"> Learned how to work with Realm database for offline data storage in Android. Fixed issues related to DatePicker integration and filtering data in Realm for cleaning records.
Thursday	2025/03/06	<ul style="list-style-type: none"> Studied Retrofit for API communication in Android apps. Debugged and fixed errors in filter cleaning Retrofit requests and improved request handling logic.
Friday	2025/03/07	<ul style="list-style-type: none"> Created a new "Monthly Cleaning" module in the Android app. Designed the UI for viewing history and adding new records.
Satur day	2025/03/08	---- Weekend Holiday ----
Sunday	2025/03/09	---- Weekend Holiday ----

DETAILS AND NOTES OF WORK CARRIED OUT, PROBLEMS ENCOUNTERED AND HOW SOLVED ETC., DIMENSIONS AND SKETCHES TO BE GIVEN WHEREVER POSSIBLE

This week marked the transition from full-stack web development to Android mobile app development using Java. The focus was on understanding Android architecture, working with local storage using Realm, and integrating network operations using Retrofit. Key accomplishments included:

- **Android Development Fundamentals:** Gained a solid understanding of Android project structure, activity lifecycle, and component interactions. Used Logcat and the debugger extensively to trace runtime errors and understand app behavior.
- **Realm Database Integration:** Explored and implemented Realm for offline data storage, specifically for handling cleaning records. Successfully integrated a DatePicker for selecting dates and implemented logic to filter stored records by date.
- **Retrofit API Communication:** Studied Retrofit library to handle REST API calls. Improved request formation and response handling in the "Filter Cleaning" module, ensuring reliable server communication.
- **New Module Development:** Initiated and developed the "Monthly Cleaning" module. Designed the user interface for viewing historical cleaning data and inputting new records, aligning it with user-friendly layout practices.




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DETAILS AND NOTES OF WORK CARRIED OUT, PROBLEMS ENCOUNTERED AND HOW SOLVED ETC., DIMENSIONS AND SKETCHES TO BE GIVEN WHEREVER POSSIBLE

Problems Encountered and Solutions:

- **Debugging Runtime Issues:** Initially faced issues where the app would crash due to misconfigured components or missing references.

Solution: Used Logcat logs to trace exceptions and Android Studio's debugger to set breakpoints, which helped isolate and fix the issues.

- **Retrofit Request Errors:** Encountered problems with malformed requests or incorrect endpoints in the filter cleaning API.

Solution: Validated endpoint URLs and request payloads, then refactored the API call logic for better error handling and retry mechanisms.



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WEEK NO :.....6.....

FOR THE WEEK ENDING		TRAINING LOCATION
Sunday ...16... /...03.. /..2025...	Sunquick Lanka Pvt Ltd....
Day	Date	BRIEF DESCRIPTION OF THE WORK CARRIED OUT
Monday	2025/03/10	<ul style="list-style-type: none">Designed the UI logic for the Monthly Cleaning module in the Android app.Started integrating the Realm database for storing monthly cleaning records locally.
Tuesday	2025/03/11	<ul style="list-style-type: none">Completed the Realm database functionality to save new monthly cleaning entries.Ensured data persistence and proper model structure for efficient storage.
Wednesday	2025/03/12	<ul style="list-style-type: none">Created a Retrofit GET request to retrieve monthly cleaning data from the API.Successfully displayed the fetched data in the app UI with proper formatting.
Thursday	2025/03/13	---- Poya Holiday ----
Friday	2025/03/14	<ul style="list-style-type: none">Developed a Retrofit POST request to send user input data to the backend API.Validated form data before submission to ensure data integrity and accuracy.
Satur day	2025/03/15	---- Weekend Holiday ----
Sunday	2025/03/16	---- Weekend Holiday ----

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This week was focused on finalizing the Monthly Cleaning module in the Android app by integrating offline and online data flow through Realm and Retrofit. The development covered user interface logic, local data storage, and seamless synchronization with the backend.

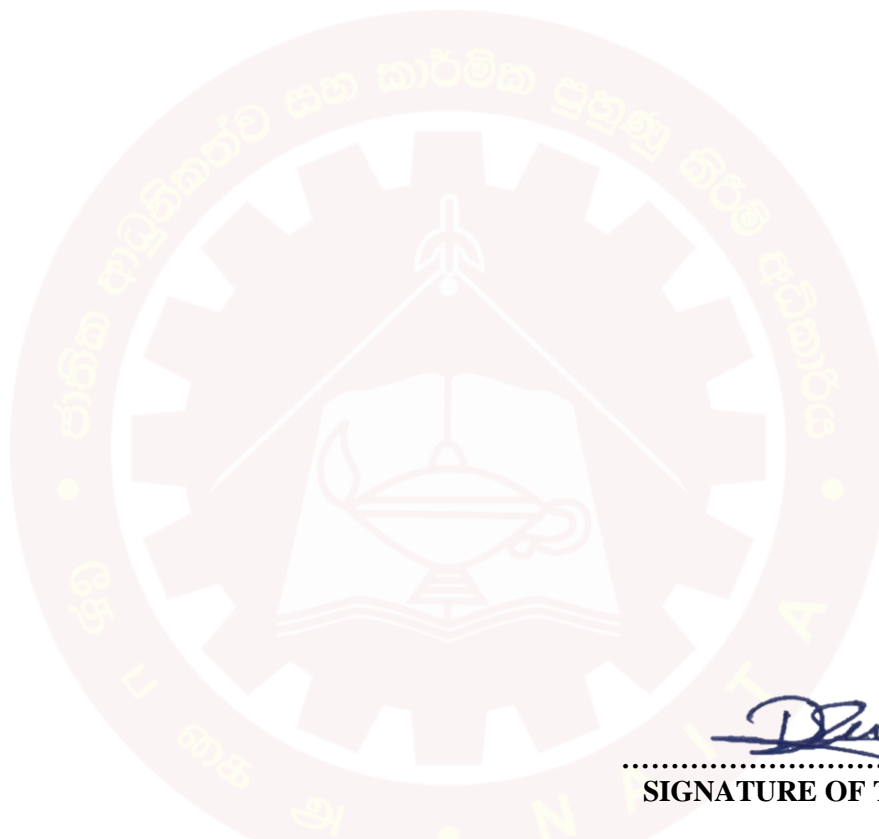
- **UI and Realm Integration:** Designed the Monthly Cleaning module's UI to allow both data viewing and input. Integrated the Realm database to support local storage, ensuring that data is accessible even offline.
- **Retrofit GET Implementation:** Implemented a GET API call using Retrofit to retrieve monthly cleaning records. Displayed the fetched data in a structured and user-friendly layout.
- **Retrofit POST Implementation:** Developed a POST request mechanism to submit data to the backend server after validating input. This ensured clean and accurate data entry.

Problems Encountered and How Solved:

- **Server and Local Data Inconsistency:** Observed mismatch between server database content and Realm data in the app, leading to confusion in displayed records.
Solution: Ensured data consistency by updating or inserting data into the server via a POST API request, and only upon receiving a successful server response, updated the Realm database locally.
- **Validation Gaps:** Inputs with missing or invalid data were allowed, risking backend errors.
Solution: Implemented thorough input validation logic before sending data to the API, improving both frontend integrity and backend reliability.


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WEEK NO :.....7.....

FOR THE WEEK ENDING		TRAINING LOCATION
Sunday ...23... /...03.. /..2025...	Sunquick Lanka Pvt Ltd....
Day	Date	BRIEF DESCRIPTION OF THE WORK CARRIED OUT
Monday	2025/03/17	<ul style="list-style-type: none"> Refined API error handling to improve reliability and user feedback. Configured Retrofit interceptors for better control over request headers and logging.
Tuesday	2025/03/18	<ul style="list-style-type: none"> Created the Line Clearance module in the Mixing app. Designed the UI layout for the module using modern Android components.
Wednesday	2025/03/19	<ul style="list-style-type: none"> Defined the Realm database schema required for the Mixing app's new features. Identified the necessary APIs and data fields for backend integration.
Thursday	2025/03/20	<ul style="list-style-type: none"> Performed bug fixes in the Checklist module to improve stability.
Friday	2025/03/21	<ul style="list-style-type: none"> Worked on enhancements in the Syrup Mixing module of the Mixing app. Updated RecyclerView logic to automatically refresh after data is posted.
Satur day	2025/03/22	---- Weekend Holiday ----
Sunday	2025/03/23	---- Weekend Holiday ----

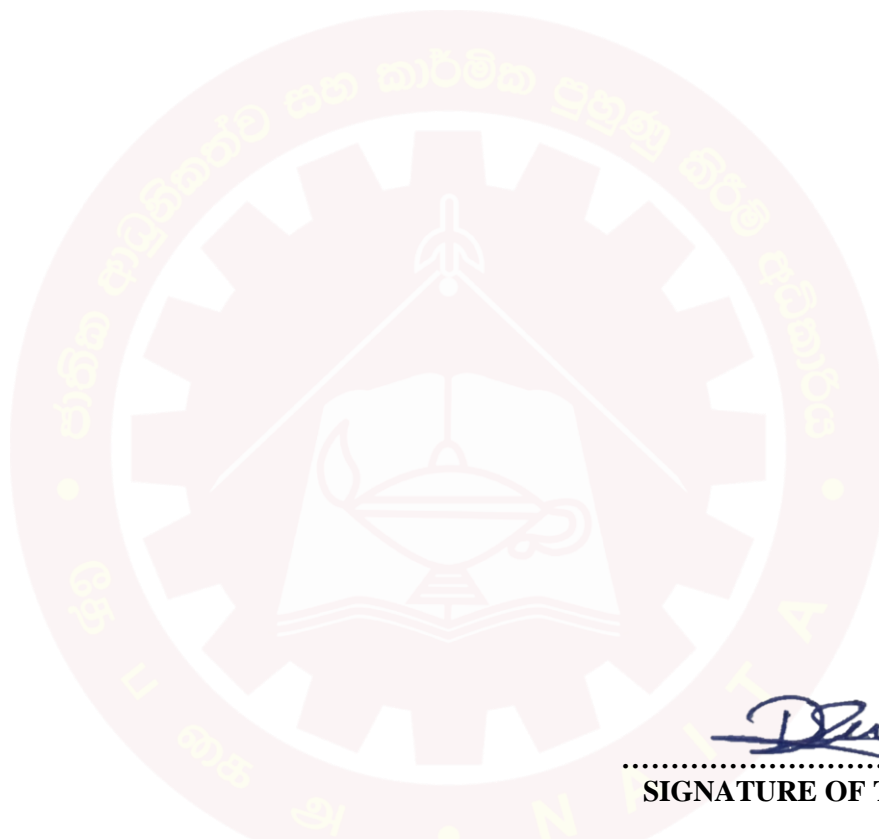
During the week, major advancements were made in the Mixing Android application by leveraging modern technologies such as Retrofit and Realm. Retrofit was refined for improved API communication, with enhanced error-handling strategies and the integration of interceptors to manage custom headers, log network requests, and control request flows efficiently ensuring robustness during unstable network conditions. A significant milestone was the creation of the new Line Clearance module, where the UI was implemented using XML layouts, ensuring a user-friendly, scalable interface. On the backend side, a Realm database schema was designed specifically for this module, enabling fast, offline-capable data storage. Additionally, necessary RESTful API endpoints were outlined to align with the app's data structure, allowing synchronized interaction between the local and server-side databases. Bug fixes in the existing Checklist module addressed edge-case crashes and enhanced application stability. Meanwhile, the Syrup Mixing module saw user experience improvements through the use of RecyclerView, which was updated to automatically refresh the UI after successful data submission, providing real-time feedback and ensuring smoother user interaction.

Problems Encountered and How Solved:

- **Issue:** Delayed API error feedback during network failures.
Solution: Implemented a loading screen with timeout logic and clear error messages to improve user awareness during API delays or failures.
- **Issue:** RecyclerView not refreshing after the "Post Data" button was clicked following successful submission.
Solution: On receiving a successful Retrofit response, all submitted data is now removed from the existing RecyclerView, ensuring the UI reflects the cleared input state.


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WEEK NO :.....8.....

FOR THE WEEK ENDING		TRAINING LOCATION
Sunday ...30... /...03.. /..2025...	Sunquick Lanka Pvt Ltd....
Day	Date	BRIEF DESCRIPTION OF THE WORK CARRIED OUT
Monday	2025/03/24	<ul style="list-style-type: none">Fixed critical bugs in the “Finished Goods” module of the Mixing Android app.Validated module functionality after applying bug fixes
Tuesday	2025/03/25	<ul style="list-style-type: none">Added new features to the Syrup Mixing module based on functional requirements.Improved UI design for better user experience and visual consistency.
Wednesday	2025/03/26	<ul style="list-style-type: none">Implemented input validations in the Syrup Mixing module to prevent incomplete submissions.Ensured correct field validation logic before data submission.
Thursday	2025/03/27	<ul style="list-style-type: none">Resolved multiple bugs across the Mixing Android app.
Friday	2025/03/28	<ul style="list-style-type: none">Replaced all Toast messages with a new custom success alert system.Integrated the new alert system into all relevant success events.
Satur day	2025/03/29	---- Weekend Holiday ----
Sunday	2025/03/30	---- Weekend Holiday ----

DETAILS AND NOTES OF WORK CARRIED OUT, PROBLEMS ENCOUNTERED AND HOW SOLVED ETC., DIMENSIONS AND SKETCHES TO BE GIVEN WHEREVER POSSIBLE

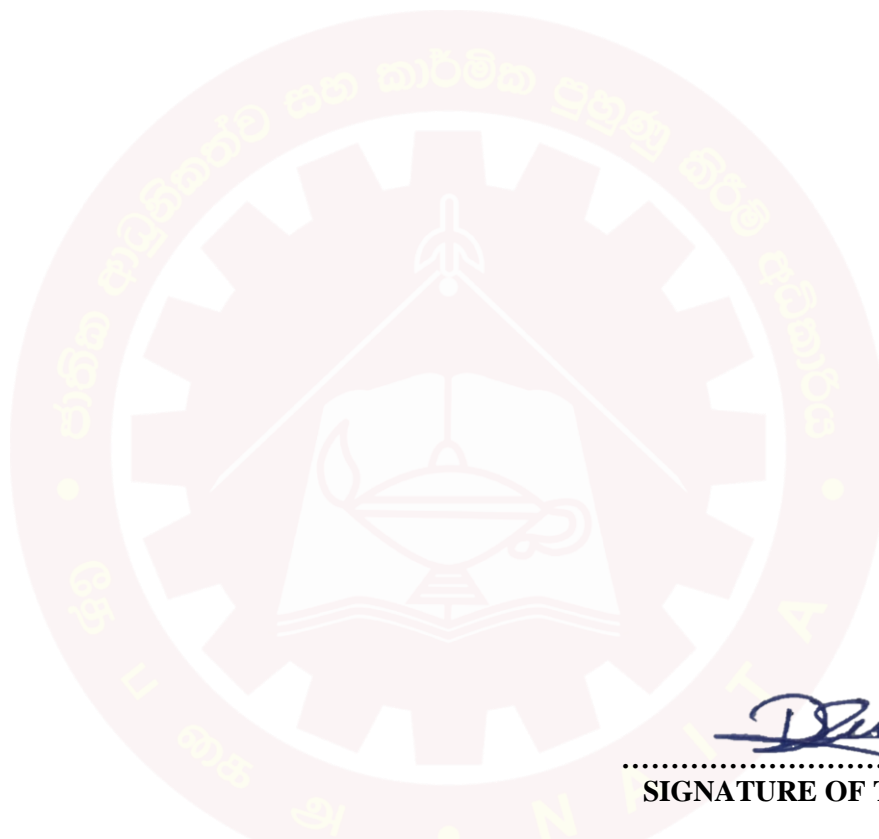
During this week, development efforts focused on stabilizing and enhancing the Mixing Android application, with a combination of bug fixes, UI improvements, and validation logic implementation. Critical bugs in the Finished Goods module were identified and resolved, followed by rigorous validation to ensure the module's full functionality was restored. The Syrup Mixing module was improved with the addition of new features tailored to updated functional requirements. Its UI was refined using Android's Material Design components to improve the overall user experience and visual cohesion. To enhance data integrity, comprehensive input validations were implemented, using standard Java validation methods and Android form handling to prevent incomplete or invalid submissions. Later in the week, cross-module debugging was carried out to fix miscellaneous issues in the app, increasing its stability. Additionally, user feedback mechanisms were upgraded by replacing all default Toast messages with a custom success alert system developed using custom AlertDialog components, ensuring a more consistent and professional interaction flow across the app.

Problems Encountered and How Solved:

- **Issue:** Bug in the Finished Goods module causing unexpected crashes during data processing.
Solution: The issue was traced using Logcat and debugging tools to the improper handling of null values in data inputs. The code was updated to include null checks and proper exception handling, ensuring the app no longer crashes under these conditions.
- **Issue:** Data submission errors in the Syrup Mixing module due to incomplete form inputs.
Solution: Input validation was added to ensure users cannot submit forms without completing the required fields. This was implemented by disabling the submit button until all required fields are filled. This ensured that users cannot submit incomplete forms, thereby improving data integrity and reducing submission errors.


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WEEK NO :.....9.....

FOR THE WEEK ENDING		TRAINING LOCATION
Sunday ...06... /...04.. /..2025...	Sunquick Lanka Pvt Ltd....
Day	Date	BRIEF DESCRIPTION OF THE WORK CARRIED OUT
Monday	2025/03/31	<ul style="list-style-type: none">Began bug fixing in the old Checklist module of the Mixing app.Reviewed previous code and identified areas needing optimization.
Tuesday	2025/04/01	<ul style="list-style-type: none">Shifted to development in the PAX Android app.Integrated Monthly Cleaning and Filter Cleaning modules into the new app.
Wednesday	2025/04/02	<ul style="list-style-type: none">Modified the DatePicker in the Finished Goods module to support single date selection.Fixed bugs related to loading historical data records
Thursday	2025/04/03	<ul style="list-style-type: none">Added input validation to prevent form submission without captured images and mandatory fields.
Friday	2025/04/04	<ul style="list-style-type: none">Completed the Finished Goods module by resolving all outstanding bugs.Finalized module functionality and UI design for deployment.
Satur day	2025/04/05	---- Weekend Holiday ----
Sunday	2025/04/06	---- Weekend Holiday ----

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DETAILS AND NOTES OF WORK CARRIED OUT, PROBLEMS ENCOUNTERED AND HOW SOLVED ETC., DIMENSIONS AND SKETCHES TO BE GIVEN WHEREVER POSSIBLE

This week focused on improving key functionalities and bug fixes in the Mixing and PAX Android apps, with a strong emphasis on feature integration, validation, and optimization.

In the Mixing Android app, the Checklist module underwent bug fixes, improving stability. Realm Database was utilized to store data locally and ensure data consistency, while Retrofit was used for API communication. The Monthly Cleaning and Filter Cleaning modules were integrated into the new PAX Android app, leveraging Android Studio and Java for smooth module integration.

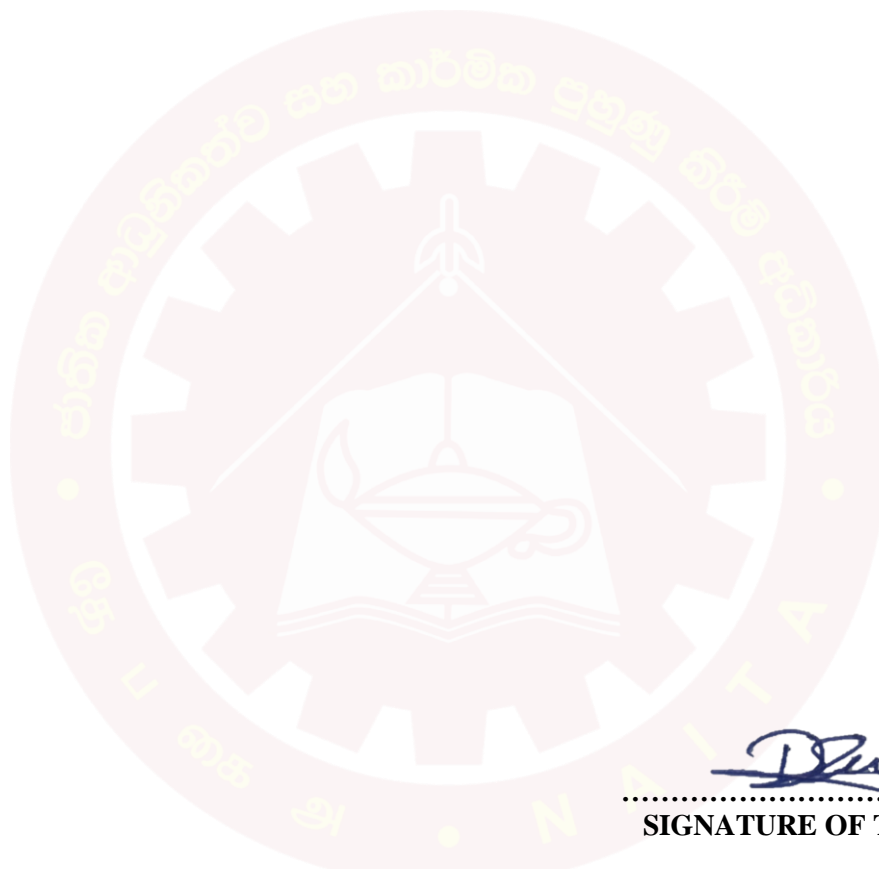
The Finished Goods module saw significant updates, including modifying the DatePicker using Android Widgets to support single-date selection. Additionally, input validation was added to ensure mandatory fields and image captures were completed before submission.

Problems Encountered and How Solved:

- **Issue:** Problems with DatePicker functionality in the Finished Goods module.
Solution: The DatePicker was modified to allow for selecting only a single date, simplifying the user interface. Additionally, issues related to loading historical records were fixed by improving the data-fetching logic, ensuring records were displayed properly in the app.
- **Issue:** Missing form validations in the Finished Goods module.
Solution: Input validation was added to ensure that forms cannot be submitted without mandatory fields and images being captured. This was achieved by checking field values before enabling the submission button, thus preventing incomplete submissions.


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WEEK NO :.....10.....

FOR THE WEEK ENDING		TRAINING LOCATION
Sunday ...13... /...04.. /..2025...	Sunquick Lanka Pvt Ltd....
Day	Date	BRIEF DESCRIPTION OF THE WORK CARRIED OUT
Monday	2025/04/07	<ul style="list-style-type: none">Added alert messages and improved user feedback in the Cleaning modules.Fixed several bugs and implemented input validations to ensure data integrity.
Tuesday	2025/04/08	<ul style="list-style-type: none">Added a "Check Oil Leak" checkbox in the Vehicle Details activity.Updated the Retrofit request logic in the Security Android app to include the new field.
Wednesday	2025/04/09	<ul style="list-style-type: none">Performed bug fixes in the Mixing app for smoother functionality.Focused on UI and logic corrections across multiple modules
Thursday	2025/04/10	<ul style="list-style-type: none">Modified the printer service request to include the "MOUNIQ" number.
Friday	2025/04/11	---- New Year Vacation ----
Satur day	2025/04/12	---- Weekend Holiday ----
Sunday	2025/04/13	---- Weekend Holiday ----

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Issued Date: 22.02.2023

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NAITA/SIT/ UOC / FOT/ B.ICT /2025

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During this week, several improvements and bug fixes were made across different modules, enhancing the user experience and functionality.

Security Android App: A new feature was added to the Vehicle Details activity by integrating a "Check Oil Leak" checkbox using standard Android UI components (CheckBox). The Retrofit library was used to update the request model and API call logic, allowing the app to send the state of the new field to the backend server. This enhancement improved both data completeness and backend communication, ensuring that new inspection parameters are accurately captured and transmitted through the existing API infrastructure.

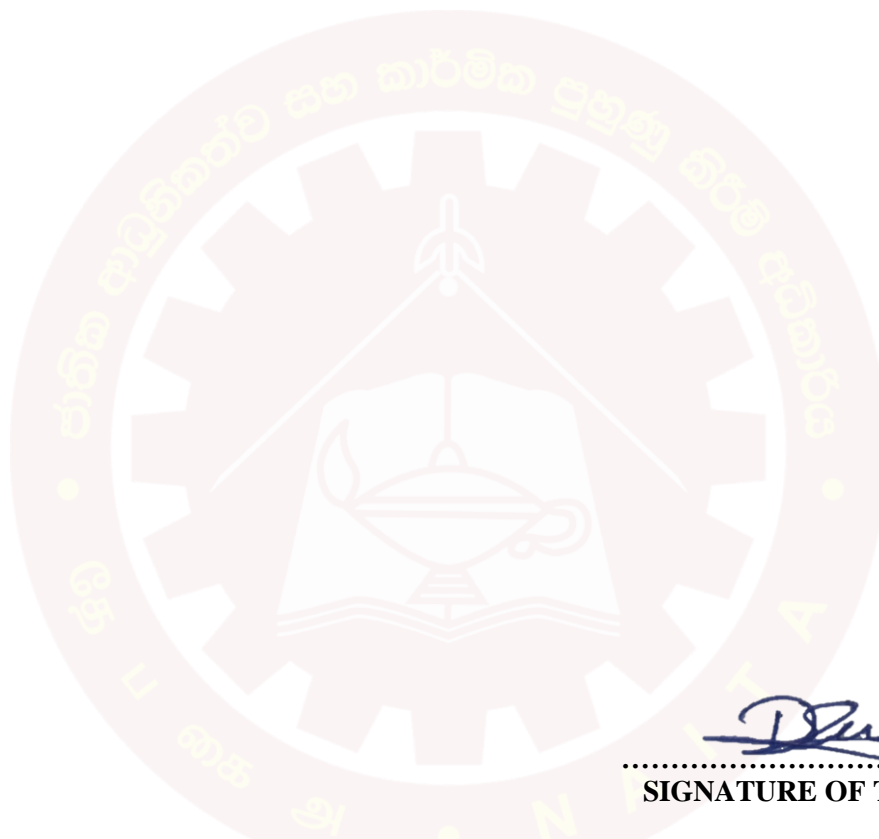
Printer Service Request: The printer service request logic was modified to include the "MOUNIQ" number, ensuring more accurate data handling and printer management.

Throughout the week, the technologies used included Retrofit for API communication, Android UI components for better interactivity, and input validation techniques to ensure robust app performance. The app's overall stability and user experience were significantly improved with the fixes and feature additions.



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WEEK NO :.....11.....

FOR THE WEEK ENDING Sunday ...20... /...04.. /..2025...		TRAINING LOCATIONSunquick Lanka Pvt Ltd....
Day	Date	BRIEF DESCRIPTION OF THE WORK CARRIED OUT
Monday	2025/04/14	---- New Year Vacation ----
Tuesday	2025/04/15	---- New Year Vacation ----
Wednesday	2025/04/16	---- New Year Vacation ----
Thursday	2025/04/17	---- New Year Vacation ----
Friday	2025/04/18	---- New Year Vacation ----
Satur day	2025/04/19	---- Weekend Holiday ----
Sunday	2025/04/20	---- Weekend Holiday ----

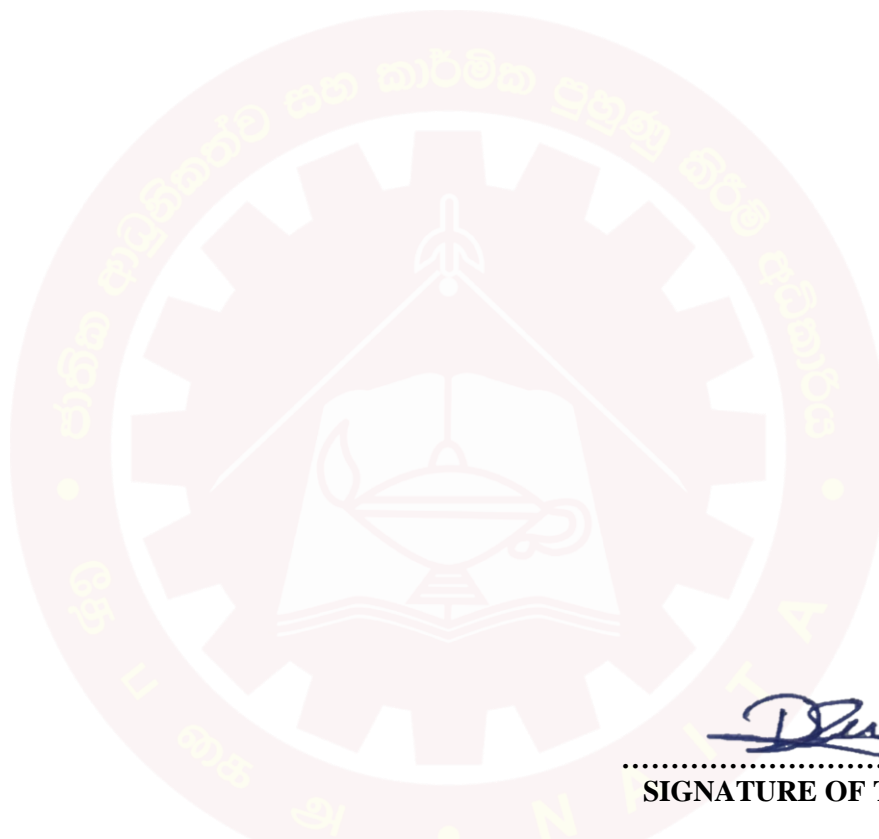
DETAILS AND NOTES OF WORK CARRIED OUT, PROBLEMS ENCOUNTERED AND HOW SOLVED ETC., DIMENSIONS AND SKETCHES TO BE GIVEN WHEREVER POSSIBLE

The entire workweek was observed as New Year vacation, from April 14th to April 18th, during which no official tasks or development activities were conducted.



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WEEK NO :.....12.....

FOR THE WEEK ENDING		TRAINING LOCATION
Sunday ...27... /...04.. /..2025...	Sunquick Lanka Pvt Ltd....
Day	Date	BRIEF DESCRIPTION OF THE WORK CARRIED OUT
Monday	2025/04/21	<ul style="list-style-type: none">Fixed issues related to the "Sync Pallet" option in the Mixing app.Ensured proper syncing and consistency of pallet data across batch.
Tuesday	2025/04/22	<ul style="list-style-type: none">Completed functionality to store the selected batch in the local database.
Wednesday	2025/04/23	<ul style="list-style-type: none">Worked on bug fixes in the PAX app to improve performance and stability.
Thursday	2025/04/24	<ul style="list-style-type: none">Continued bug fixing in the PAX app across different modules.Focused on improving app responsiveness and error handling.
Friday	2025/04/25	<ul style="list-style-type: none">Added a dropdown list for selecting printers in the app.Implemented logic to load available printers dynamically from the printer pool.
Saturday	2025/04/26	<ul style="list-style-type: none">Continued bug fixing in the "PAX" app. edited the "Add Pallet" dialog box, including input validations.
Sunday	2025/04/27	<ul style="list-style-type: none">Implemented QR code validation to allow only raw material-related codes to be read. Invalid QR codes are displayed as "Invalid" and cannot be submitted and pallet add.

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During this week, key enhancements and bug fixes were implemented across the Mixing and PAX Android apps, focusing on data syncing, performance optimization, and user interaction improvements. In the Mixing app, issues with the "Sync Pallet" feature were resolved by ensuring accurate batch-level data synchronization, contributing to more reliable pallet tracking. The ability to store selected batch details locally was added using Realm database.

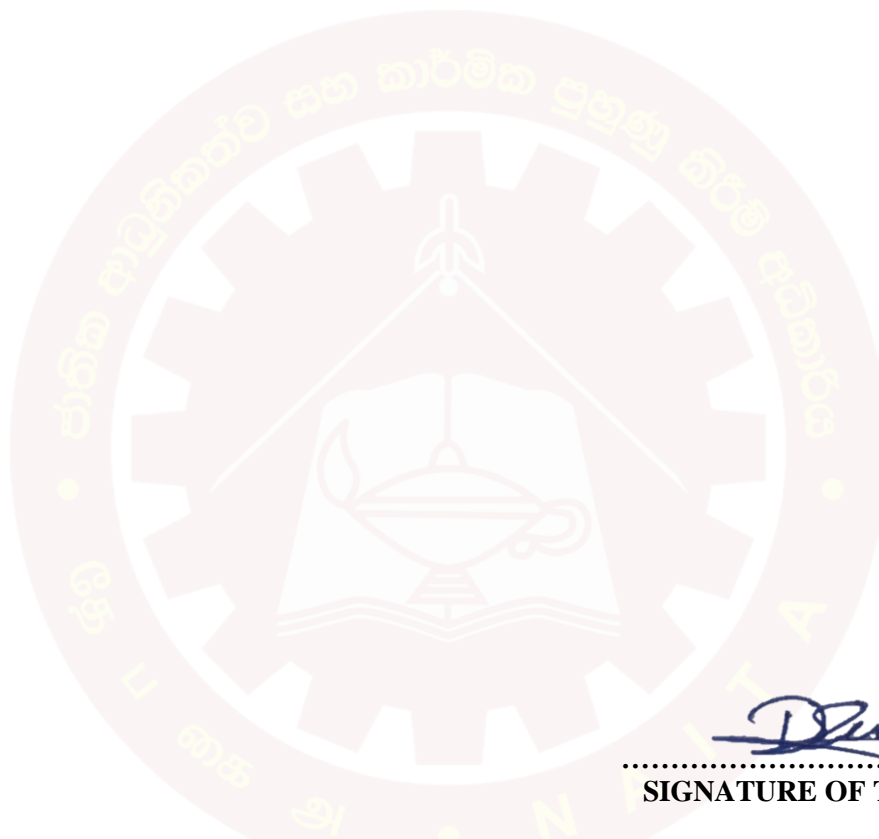
A new printer selection feature was introduced, enabling users to choose printers from a dropdown. Printer names and IPs were saved in the Realm database, and logic was implemented to fetch the IP address based on the selected name's position. Once selected, the app allowed users to input a number of QR stickers, and on clicking OK, QR codes were printed via the correct IP using Retrofit API calls.

A QR code validation feature was implemented in the PAX app to ensure that only raw material-related QR codes (such as bottles or caps) are accepted during the pallet addition process. Each QR code follows a structured format, such as RW/BO/1234424114 for bottles or RW/CP/03223423 for caps, where the prefix (RW/BO or RW/CP) identifies the material type. The app extracts this prefix from the scanned code and checks it against valid entries stored in the Realm database. If the prefix matches an expected category (e.g., bottle or cap), the QR code is marked as valid and allowed for submission. Otherwise, it is flagged as "Invalid" and blocked from submission, preventing accidental or incorrect data entry. This logic enhances data integrity by ensuring that only authorized raw material QR codes are processed in the system.

development work on the "Add Pallet" dialog box in the PAX app focused on resolving functional issues to enhance overall user experience and workflow efficiency. input validation logic was implemented to ensure that users cannot submit the form with empty or invalid fields.


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WEEK NO :.....13.....

FOR THE WEEK ENDING		TRAINING LOCATION
Sunday ...04... /...05.. /..2025...	Sunquick Lanka Pvt Ltd....
Day	Date	BRIEF DESCRIPTION OF THE WORK CARRIED OUT
Monday	2025/04/28	<ul style="list-style-type: none">Added a spinner to load available lot numbers for the new sugar entry in the PAX app
Tuesday	2025/04/29	<ul style="list-style-type: none">Investigated and attempted to resolve an issue where submitting new raw material details resulted in a null ID being stored in the server database. Focused on identifying the cause and preparing backend-side adjustments for proper ID generation or validation.
Wednesday	2025/04/30	<ul style="list-style-type: none">Worked on modifying API response handling logic to support inserting a new material using the last ID from the database. If the material already exists, updated the corresponding raw material record instead.
Thursday	2025/05/01	---- May Day Holiday ----
Friday	2025/05/02	
Saturday	2025/05/03	---- Weekend Holiday ----
Sunday	2025/05/04	---- Weekend Holiday ----

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development efforts in the PAX app focused on enhancing the raw material entry workflow and resolving backend data integrity issues. A spinner was implemented to dynamically load available lot numbers for new sugar entries, improving user experience and ensuring accurate data selection.

The team also addressed a critical issue where newly submitted raw material entries were returning a null ID from the server. The problem was traced to gaps in backend validation and database insert logic. Solutions included updating API response handling and modifying backend logic to fetch the last inserted material ID when adding new records. Additionally, a conditional flow was introduced to check if the raw material already exists—if so, the system updates the existing record rather than creating duplicates.

These improvements enhanced the reliability of raw material data management, ensured consistent database entries, and refined the overall workflow within the app.

Problems Encountered and How Solved:

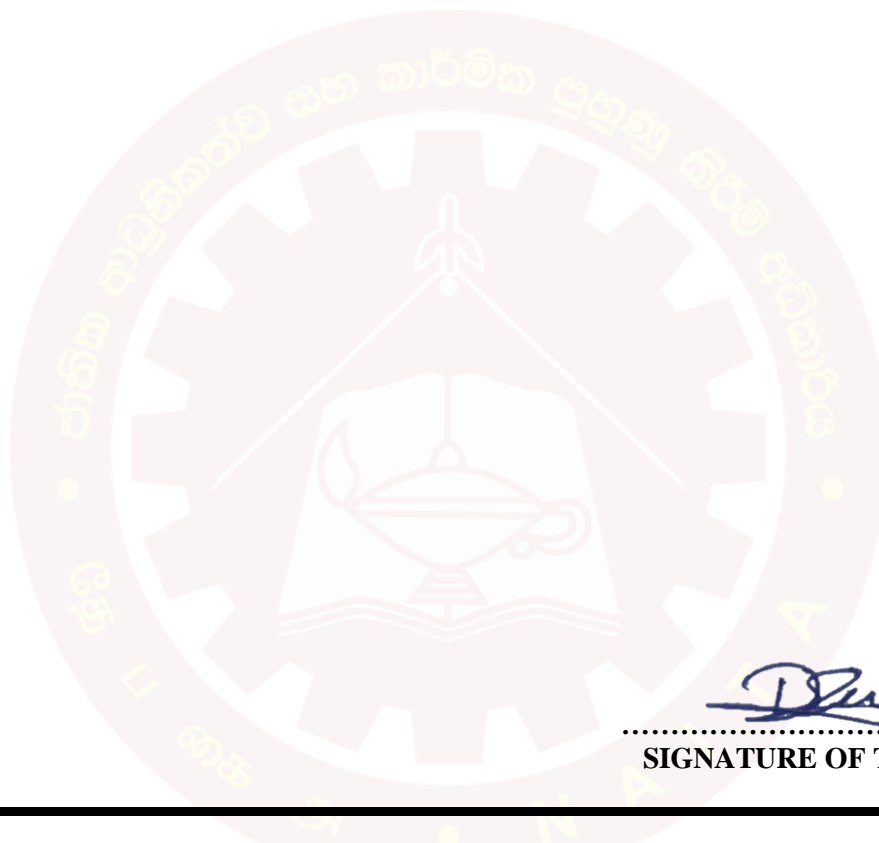
- **Issue:** When attempting to submit new raw material data, the server was returning a null ID, causing the data to be saved.

Solution: Updated the backend API logic to handle insert operations properly by fetching the last inserted ID from the database. Additionally, added a condition to check if the record Id already exists. If it does, the system updates the existing record instead of creating a new one, avoiding duplication and ensuring data consistency.



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INSPECTION REPORT

Inspection 01

NAME AND DESIGNATION OF OFFICER:

DATE

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REMARKS:

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SIGNATURE

Inspection 02

NAME AND DESIGNATION OF OFFICER:

DATE

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REMARKS:

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PROGRESS REPORT OF AN ESTABLISHMENT ON TRAINING PERFORMANCE		
Name of Establishment :		
Period of Training – From:.....To:.....		
Comments of Training Supervising Officer on Trainee's 1. Conduct 2. Attitude to work 3. Attendance		
NO.OF DAYS LEAVE TAKEN	AUTHORIZED	UNAUTHORIZED
Signature of the officer in-charge of training. (with rubber stamp)		

PROGRESS REPORT OF AN ESTABLISHMENT ON TRAINING PERFORMANCE		
Name of Establishment :		
Period of Training – From:.....To:.....		
Comments of Training Supervising Officer on Trainee's 1. Conduct 2. Attitude to work 3. Attendance		
NO. OF DAYS LEAVE TAKEN	AUTHORIZED	UNAUTHORIZED

Signature of the officer in-charge of training.
(With rubber stamp)

