

SITESYNC: DOCUMENTATION

MNS ACUZAR

SITESYNC: INTEGRATION OF WEB-BASED CONSTRUCTION PROGRESS MANAGEMENT SYSTEM FOR MNS ACUZAR



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Project Overview



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Design and Construction

PROJECT OVERVIEW



Construction work involves many tasks like using tools, setting schedules, managing workers, handling materials, and collaborating with clients. Without a proper system, these tasks can become chaotic, leading to delays, poor communication, and lost information. It's difficult to keep track of progress or share updates when everything is done manually.

To address this, our team plans to create a mobile-based Construction Management System. The app will allow clients to book appointments, view sample packages, and send feedback quickly. For Admin and Staff, it will help them record project updates, track tools and equipment, manage purchases, and provide clear reports—all in real time.

This mobile app will make work faster, more organized, and easier to manage. It will give everyone—clients, staff, and admins—a simple way to stay connected and informed. We will use Flutter to build a user-friendly, secure, and responsive app that meets the needs of a construction company.

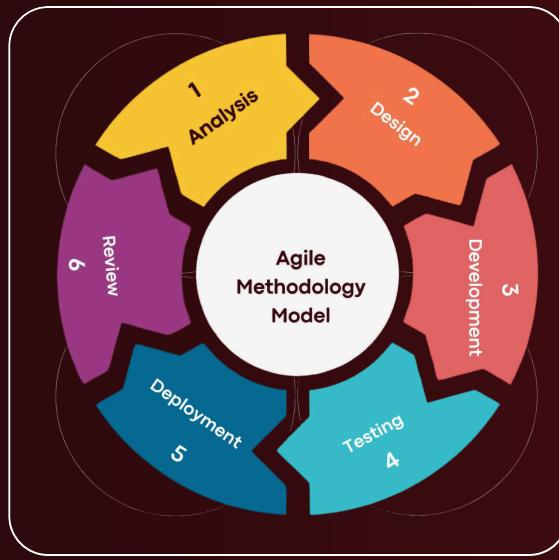
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DEVELOPMENT MODEL



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In developing the application, developers applied the Agile Methodology in the development of Mobile Application for the MNS Acuzar's Company by utilizing its adaptive and cyclical process to meet the project's evolving requirements. The figure below illustrates the Agile methodology model, emphasizing the flexibility and incremental phases of development.



Agile Development Model

Developers believe that each phases of it is essential for the success of the project. The repetitive nature of this methodology will allow developers to cycle through these phases repetitively, ensuring the development of the application at each stage. Moreover, Agile methodology's adaptability is highly beneficial for the development by enabling immediate adjustments while ensuring the quality of the project.

DEVELOPMENT MODEL

Initialization and Requirement Analysis

In this phase, team defines the problem that is needed to solve, scope of the application, and goals that it aims to achieve. The requirements needed both functional and non-functional were also identified. Lastly, the team communicates with the company's owner to clarify that the plan aligns with the company's needs and processes.

Designing the Application

This phase focuses on creating a structured application design or blueprint which includes UI and UX design. It is done by creating wireframes and mockups to ensure that the user will have a smooth interaction with the application. Through this, the development team will be guided in organizing the overall structure of the application.

App Development

In this phase, the blueprint becomes the reality through writing codes. The application was created using the Flutter Framework where the modules for clients, office staff, and system administrator are interconnected. Developers ensure that the application is not only appealing, responsive, and user-friendly but also useful to its users.

App Testing and Debugging

In this phase, the application is thoroughly evaluated by means of checking its functionality, usability, and reliability across each user roles (clients, office staff, and system administrator). Application bugs and logical errors are debugged using the Flutter's hot-reload and other integrated debugging tools. In conclusion, this phase ensures that the application runs smoothly and securely before the deployment phase.

App Deployment

This phase is the release of the application and it is now accessible to the users where it runs smoothly by using both android and iOS platform. Here, monitoring of the application is also started to track the application performance, engagement and post-deployment issues to improve the application more. In summary, this phase delivers the goal of the digital solution to enhance the project management, communication, and operational efficiency of the MNS Acuzar.

App Review

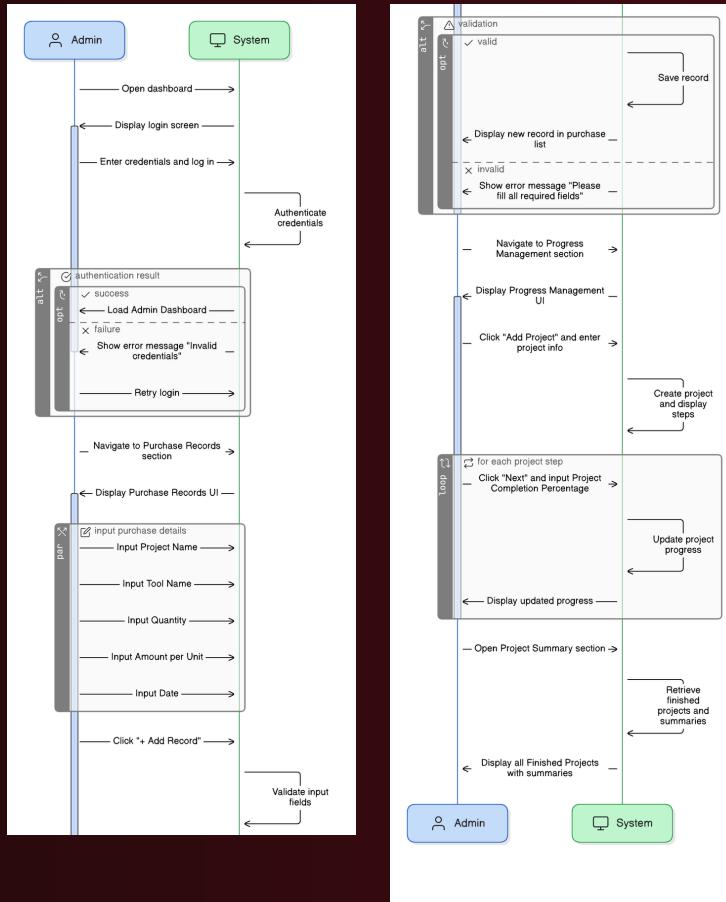
The application was evaluated in this phase, users of the application provided their feedback that will help to improve and enhance the functionalities or usability of the application. All of the issues that have been encountered will be raised here. This will also validate if the application meets the quality standard that its features are working correctly and to check if it's ready for real-world usage.



Sequence Diagram



A sequence diagram is a type of interaction diagram that provides a clear visualization of how objects or components within a system interact over time. It shows the order of messages exchanged between objects and their respective lifelines. In this context, the sequence diagram illustrates the flow of actions and interactions between the Admin and the system components during key processes, such as logging in, managing purchase records, tracking project progress, and viewing project summaries. This diagram helps to clarify the sequence of operations and ensures that the system's logic is easily understood and efficiently executed. It also serves as a valuable tool for identifying potential bottlenecks or areas for improvement in the system's workflow.



Admin Interface

SYSTEM ARCHITECTURE



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In the proposed system, the Admin initiates the process by logging into the dashboard with their credentials. The system then verifies the provided information, granting access to the Admin Dashboard if the credentials are correct or displaying an error message in the case of incorrect details. Once logged in, the Admin can navigate to the Purchase Records section, where a straightforward interface is available for entering purchase information. The Admin is required to input essential details such as the project name, tool name, quantity, unit price, and the date of purchase. Upon selecting the "Add Record" button, the system validates the input. If all fields are properly filled, the system saves the record and adds it to the list. If any information is missing or incorrect, the Admin is prompted to complete the required fields, with an error message guiding them to make the necessary adjustments.

After managing the purchase records, the Admin proceeds to the Progress Management section. This section offers an interface where the Admin can add a new project by entering its basic information. Once the project is created, the system displays the project's steps. For each step, the Admin updates the completion percentage and clicks "Next," which triggers the system to update the project's progress in real time. Finally, the Admin can navigate to the Project Summary section, where the system compiles and displays a list of completed projects along with their summaries. This streamlined workflow ensures that the Admin can efficiently manage both purchase records and project progress, with real-time updates and validations providing a smooth and effective experience.

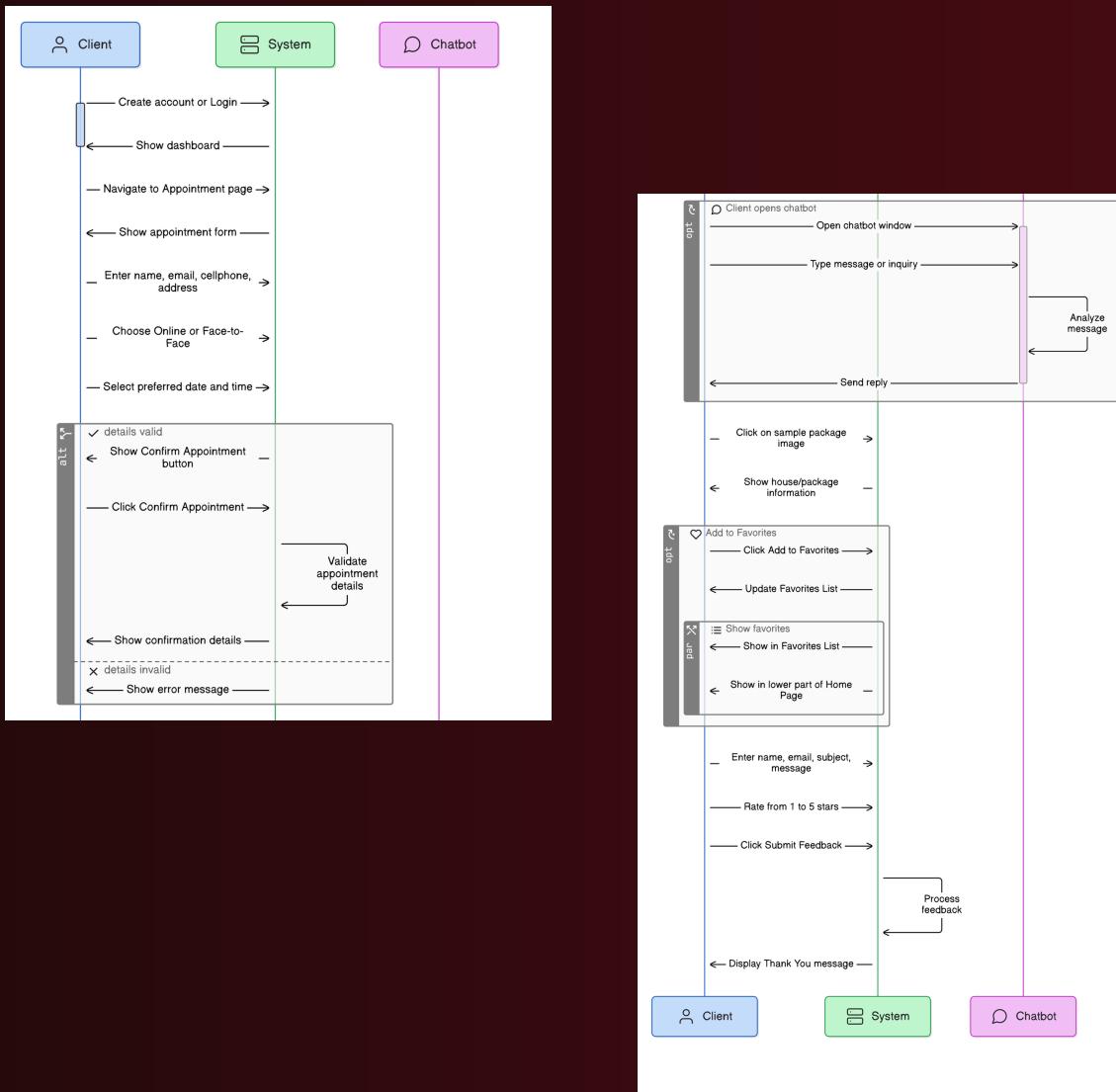
Admin Interface

SYSTEM ARCHITECTURE



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Sequence Diagram



Client Interface

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Sequence Diagram



The process begins when a client either logs in or creates a new account. After successful authentication, the system redirects the client to their personalized dashboard. From here, the client can easily navigate to the appointment request page. On this page, a form prompts the client to enter important details such as their name, email, phone number, address, the service they wish to book, and their preferred appointment date. Once the client submits the form, the system checks the information for accuracy. If all details are valid, the system confirms the appointment and stores it. If there's an error or missing information, the system displays an error message, asking the client to correct the input.

Beyond appointment booking, the platform also features a chatbot to assist clients with any inquiries. The client can open the chatbot window, type a message, and send it. The chatbot processes the query and provides a relevant response, helping the client resolve concerns or navigate the platform more effectively.

Additionally, the system allows clients to browse and select service packages, adding their favorites to a personalized list. This list is then updated and displayed on the client's homepage, making it easier for them to access frequently used services in the future.

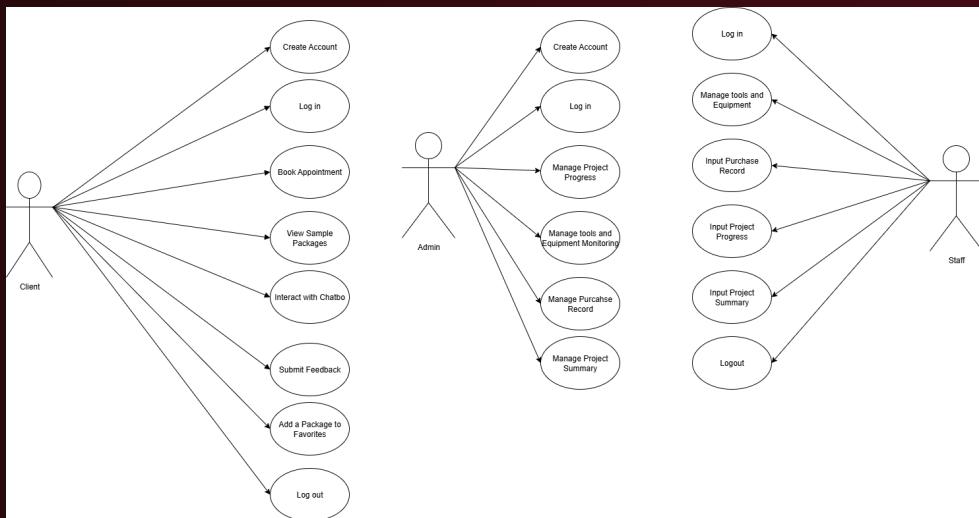
Lastly, the platform includes a feedback feature, where clients can re-enter their details and provide a service rating. Once the feedback is submitted, the system records it and shows a thank-you message to confirm that the feedback has been successfully received.

Client Interface

Use Case Diagram



Use case diagram shows specific actions or tasks that users (called actors) can do in the system. The actions are shown as ovals inside the system's box. Use case diagrams are usually made during the planning stage. They show what the system does and who uses each part. The diagram uses special symbols to make everything clear and not confusing. Diagrams help us simplify complex data, visualize abstract concepts, and plan detailed projects while bypassing pages upon pages of text. They come in a variety of formats, each suited to conveying specific types of information.



The use case diagram for MNS ACUZAR illustrates the essential functionalities and interactions between the actors and the system. The identified actors are the System Administrator, Employees/ Staff and Clients, who initiate specific actions within the system. All three actors are required to log in using their credentials to access the system's features. The System Administrator is responsible for managing monitoring tools and equipment, updating project progress, processing appointment and managing client records. They also ensure secure access through user authentication and provide dashboard insights to support internal operations.



Use Case Diagram



The Admin/ Staff, after logging in They can view project progress, tools and equipment , project summary The Clients, upon successful registration or login, can interact with several customer-oriented features. These include Book appointment ,browsing sample project packages and communicating through a built-in chatbot for inquiries and frequently asked questions. This enables clients to access relevant project and company information while maintaining efficient and transparent communication with the construction firm.The use case diagram emphasizes the division of roles and the flow of interaction among the actors in the system. It supports the goal of improving operational efficiency and client engagement by outlining clear responsibilities and system behaviors within MNS Acuzar

Screenshots



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WELCOME TO MNS ACUZAR

CLIENT LOGIN

Email

Password

Login

Don't have an account? [Create Account](#)

[Log in as Admin](#)

CREATE ACCOUNT MNS ACUZAR

CREATE NEW ACCOUNT

Email

Password

Confirm Password

Create Account

[Back to Login](#)

Screenshots



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ADMIN LOGIN MNS ACUZAR

Admin Email

Admin Password

Login

Back to Client Login

CREATE ACCOUNT MNS ACUZAR

CREATE NEW ACCOUNT

Email

Password

Confirm Password

Create Account

Back to Login

Screenshots



MNS Acuzar
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OWN YOUR
HOME NOW!

WELCOME BACK,
USERXXX!



Appointments



Chatbot Inquiries



Chatbot Inquiries



View Sample Packages



Feedback

Your Favorite Packages

No favorites yet. Add from the packages.

Screenshots



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← Book an Appointment

Appointment Details

Full Name

Email

Cellphone Number

Address

Online Face-to-Face

📅 Select Date
No date selected

⌚ Select Time
No time selected

✓ Confirm Appointment

← Chatbot Assistance

Type your message... ➤

Screenshots



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Feedback Form

Name

Email

Subject

Message

Rate your experience

★ ★ ★ ★ ★

Submit Feedback

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Sample Packages

Cavite



₱3,200,000

Vacant Lot for Sale in General Trias, Cavite

2 Beds 2 Baths

AVAILABLE

Makati



₱170,000,000

4-Bedroom House and Lot in Makati

4 Beds 5 Baths

AVAILABLE

Makati



₱20,000,000

Screenshots



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← Purchase Records

Add Purchase Record

Project Name

Select Type (Tools or Materials)

Select Item

Quantity

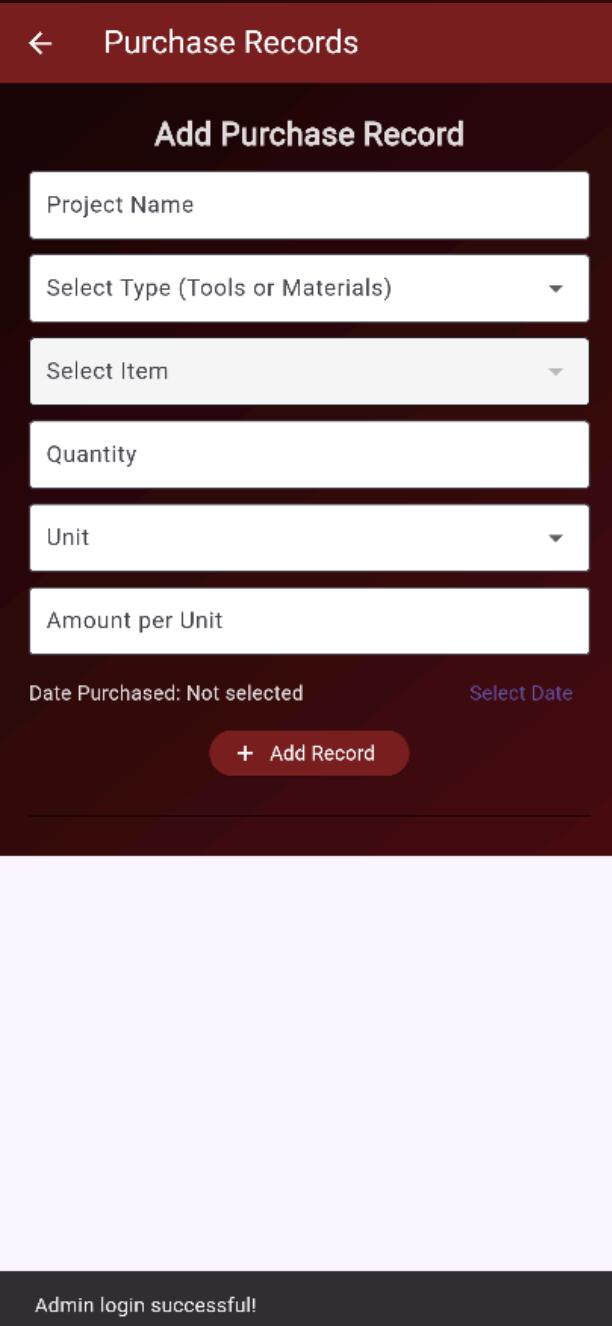
Unit

Amount per Unit

Date Purchased: Not selected Select Date

+ Add Record

Admin login successful!



← Tools Monitoring

Find Tool

Tool Name

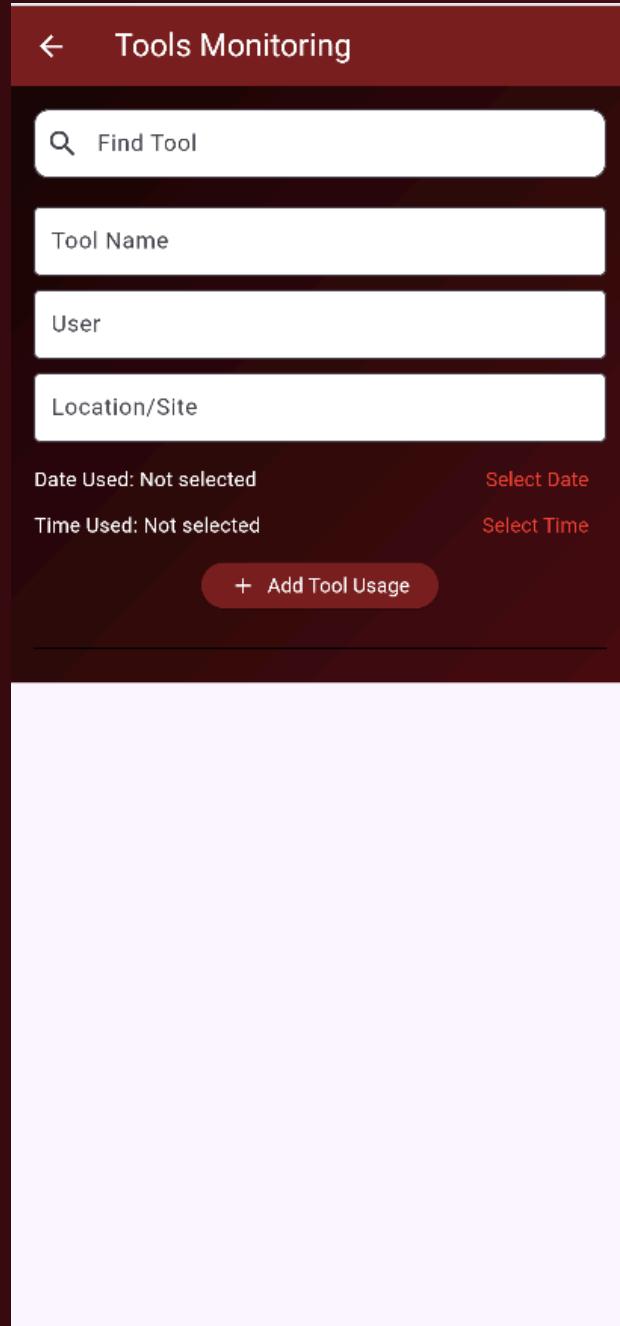
User

Location/Site

Date Used: Not selected Select Date

Time Used: Not selected Select Time

+ Add Tool Usage



Screenshots



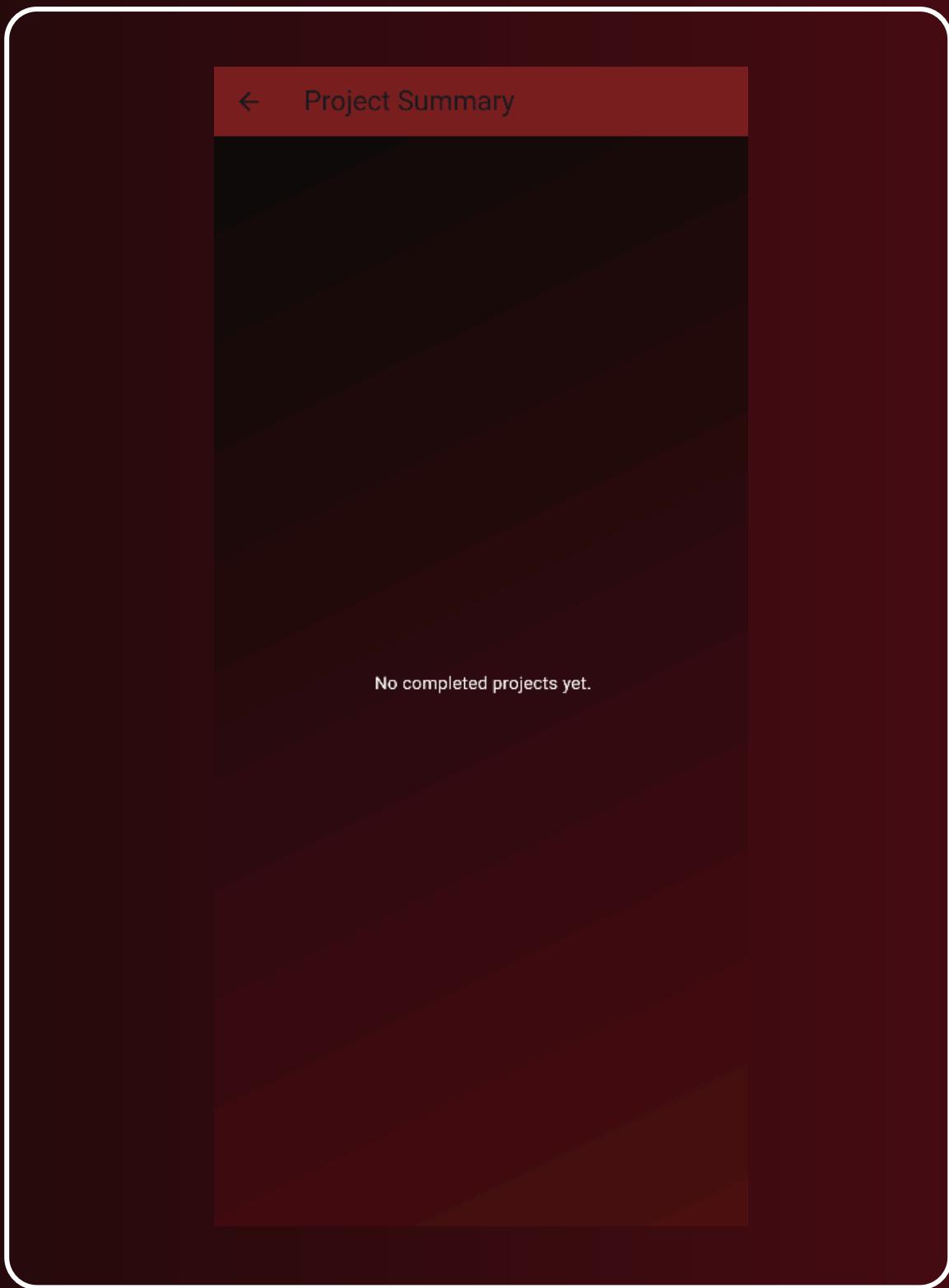
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The image displays two side-by-side mobile application screenshots. The left screenshot shows the "Purchase Records" screen with a title bar "Purchase Records" and a sub-section "Add Purchase Record". It contains six input fields: "Project Name", "Select Type (Tools or Materials)", "Select Item", "Quantity", "Unit", and "Amount per Unit". Below these fields are two buttons: "Date Purchased: Not selected" and "Select Date", followed by a large red button "+ Add Record". A message "Admin login successful!" is visible at the bottom. The right screenshot shows the "Progress Management" screen with a title bar "Progress Management". It features a "Add Project" button, a "Select Start Date" button, and a "+ Add Project" button. A message "No ongoing projects currently." is displayed below the buttons.

Screenshots



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https://docs.google.com/document/d/1IGXtaoIrwOGJVZ3TtGQl8r_BKmv7jcfVaA6YycNkj0/edit?usp=sharing

Git Hub Repository



MNS Acuzar
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Git Hub Repository Link

<https://github.com/julianabrahан/MNS-Acuzar.git>

The screenshot shows the GitHub repository page for "MNS-Acuzar". The repository is public and has one branch, "main", and no tags. It contains two files: "README.md" and "README". The "README.md" file was created by "julianabrahан" and updated "now". The "README" file is a link to a Google Drive folder. The repository has 1 commit and 0 stars. There are 0 forks and 0 watching. The "About" section notes "No description, website, or topics provided." The "Releases" section indicates "No releases published" and "Create a new release". The "Packages" section shows "No packages published" and "Publish your first package". The footer includes links to GitHub's Terms, Privacy, Security, Status, Docs, Contact, Manage cookies, and a "Do not share my personal information" option.

TEAM MEMBERS & RESPONSIBILITIES



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Abrahan, Julian Philip P.

IT 332

- Template Design
- Explanation of diagrams
- Team responsibilities
- Modification of the Template

IT 331

- Client Interface
- Connection of pages
- Design and Layout
- Modification, debugging of the application



Aldea, Francheska Noreen C.

IT 332

- Development Model
- Team Members
- Modification of Template

IT 331

- Admin Interface
- Design and Layout
- Connection of pages
- Modification, debugging of the application



Mosqueda, Eadreane

IT 332

- Project overview
- Sequence Diagram
- Use Case Diagram
- Modification of the template

IT 331

- Appointment page
- Favorites page
- Design and Layout
- Modification, debugging of the application