



SECV2113 07
HUMAN COMPUTER INTERACTION

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REPORT PROJECT PART #3
CONCEPTUAL & PHYSICAL DESIGN

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1.0 STORYBOARD

1.1 Task 1 : Book a Cleaning Service



Screen 1:

User going to work early in the morning.

Screen 2:

User scolded by the boss.

Screen 3:

User saw the car got pooped by a bird and the car looked so dirty.

Screen 4:

User come back home late because of traffic jams.

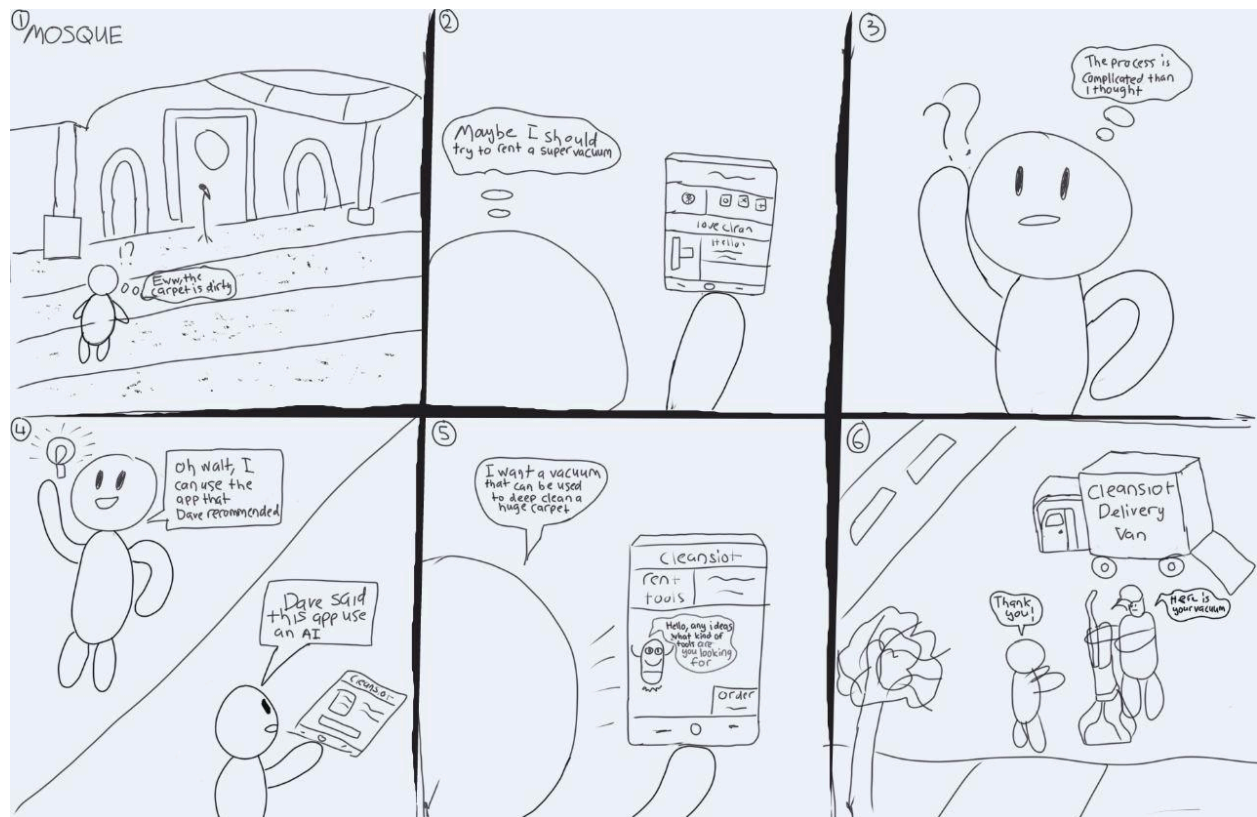
Screen 5:

User got stressed and angry because the house looked so messy.

Screen 6:

User order cleaning services to solve all the problems and live a happy clean life.

1.2 Task 2 : Rent cleaning tools



Screen 1:

The user enters the mosque, and the user finds the carpet is too dirty

Screen 2:

The user is trying to rent a vacuum cleaner specifically since the mosque does not have suitable cleaning tools.

Screen 3:

The user finds it difficult to rent a tool in the application

Screen 4:

The user is trying the AI application which called Cleansiott

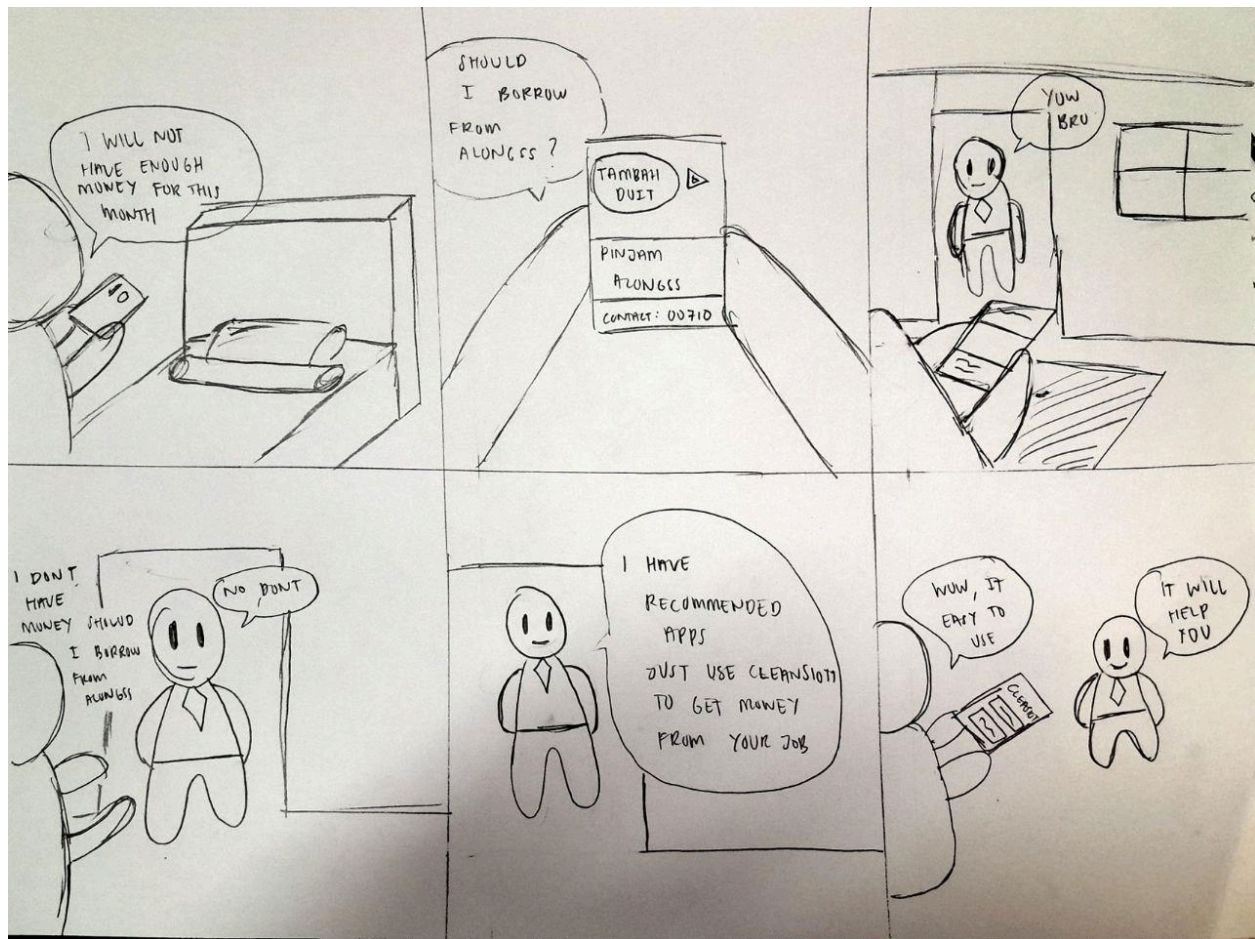
Screen 5:

The users is renting the vacuum by saying what kind of tool and their details to the AI avatar

Screen 6:

The vacuum arrives at the user's location

1.3 Task 3 : Applying job as a cleaner



Screen 1:

The user did not have enough money to survive entire month

Screen 2:

The user is trying to borrow money from "Along".

Screen 3:

User friend came after hearing the user screaming.

Screen 4:

The user explains to his/her friend about his problem.

Screen 5:

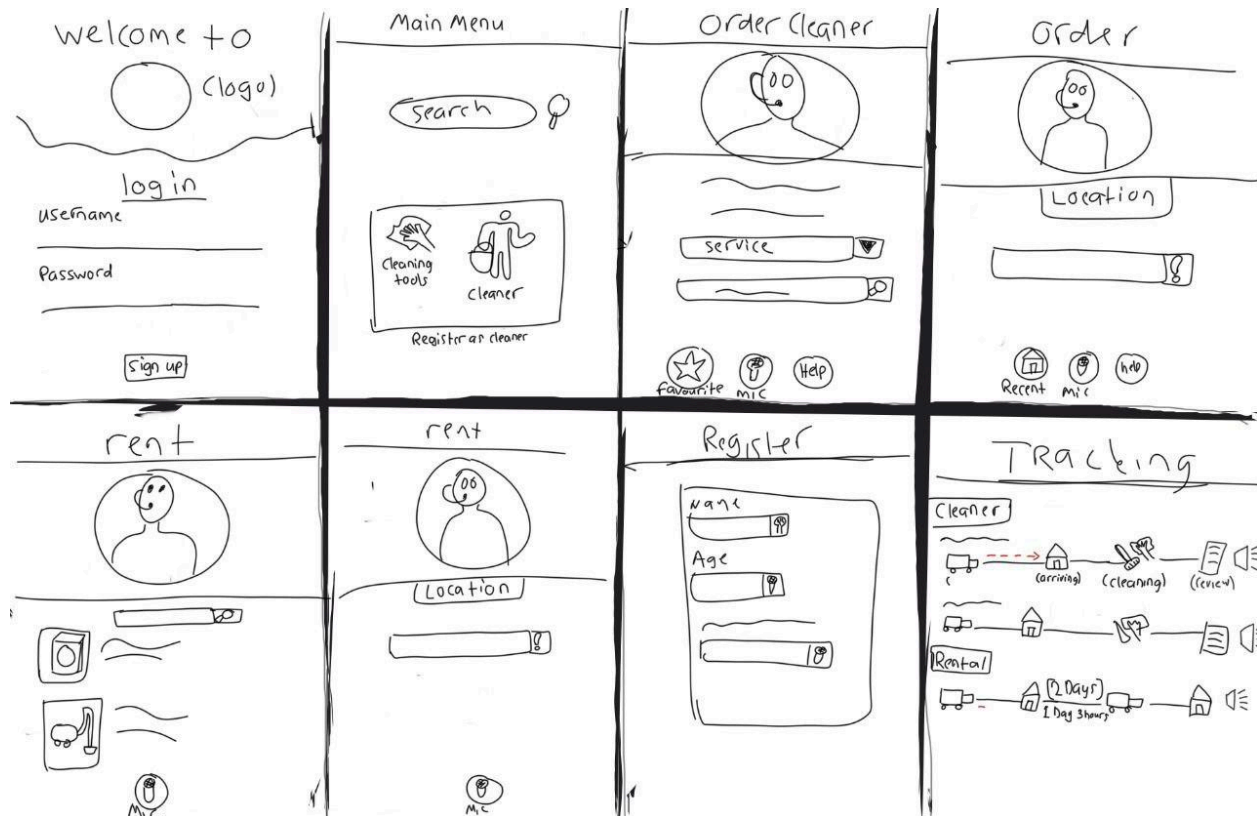
The user's friend recommended CLEANSIOTT to solve her/his problem

Screen 6:

The user tries the apps and feels it is easy to use.

2.0 ALTERNATIVE DESIGN

2.1 Alternative Design 1 - IZZAT FAKHRULLAH BIN KARIM



Screen 1: Login Page

This Login page will be filled by users by entering the username and password they have created. For those who haven't created an account for this application yet, they need to click the "Sign up" button.

Screen 2: Home Page

This is the main page of our CleanSiott application. On this page, users can order a cleaner, rent tools, search for news, and also register as a cleaner.

Screen 3: Cleaning service page

This Order Cleaner page will appear if the user clicks on the Cleaning Tools button on the main page. This page uses AI to assist users throughout the process. Users simply need to press the "Mic" button and say what they want, such as the type of services, recommendations for the best cleaner, and so on. On this page, there is also a "Favorite" button where users can view the cleaners they have marked as their favorites. Additionally, there is a "Help" button for users who need assistance.

Screen 4: Entering location page

This is the page where users will enter their address. Users can use AI to input their address simply by pressing the “Mic” button and then saying their address. If users prefer not to use AI, they can click on the Address button. This page also makes it convenient for users by saving previously used addresses. Users can access this feature by clicking the “Recent” button. Additionally, there is a “Help” button for users who need assistance.

Screen 5: Renting tools page

This page is for renting tools, where users can search for the tools they need or use AI to find the right tools by simply pressing the “Mic” button.

Screen 6: Entering location page

This page is exactly like Screen 4. This is the page where users will enter their address. Users can use AI to input their address simply by pressing the “Mic” button and then saying their address. If users prefer not to use AI, they can click on the Address button. This page also makes it convenient for users by saving previously used addresses. Users can access this feature by clicking the “Recent” button. Additionally, there is a “Help” button for users who need assistance.

Screen 7: Applying for job page

This page is for users who want to register as a cleaner. Users don’t need to type their information into the form. Instead, they can fill in their details using their voice by pressing the microphone icon.

Screen 8: Tracking order page

This page is the tracking page, where AI will inform users about the current status of their orders using voice, even if the user has turned off their smartphone.

2.2 Alternative Design 2 - MUHAMMAD AIMAN DANISH BIN MUHAMMAD EKHSAN

<h3>CleanSvot</h3> <p>username _____</p> <p>password _____</p> <p>register</p> <p>Login</p>	<h3>Register</h3> <p>Name _____</p> <p>Username _____</p> <p>IC _____</p> <p>Phone No. _____</p> <p>Address _____</p> <p>Password _____</p> <p>Register</p>	<h3>CleanStats</h3> <p>HOME ↗</p> <p>ORDER DETAILS</p> <p>ACCOUNT @</p> <p>LOGOUT</p>	<p>What are you looking today?</p> <p>job</p> <p>cleaning service</p> <p>tools</p>
<h3>Job</h3> <p>Tell me your job scope</p> <p>Time</p> <p><input type="checkbox"/> Fulltime</p> <p><input type="checkbox"/> Parttime</p> <p>State <input type="text" value="choose"/></p> <p>Area <input type="text" value="choose"/></p> <p>Apply</p>	<h3>Cleaning Service</h3> <p>Type of service?</p> <p>Date <input type="text" value="10 Jan 2025"/></p> <p>Time <input type="text" value="10:00"/></p> <p>Location <input type="text" value=""/></p> <p>Submit</p>	<h3>Tools</h3> <p>Type of tools?</p> <p>Select Model</p> <p><input type="text" value=""/></p> <p>Delivery location <input type="text" value=""/></p> <p>Submit</p>	<h3>Order Details</h3> <p>Here's your upcoming order.</p> <p>Cleaning Service 10 Jan 2025</p> <p>Rent Tools Tomorrow</p> <p>PARTTIME JOB</p> <p><input type="checkbox"/> Accept <input type="checkbox"/> Reject</p>

Screen 1: The login page

Users can just enter their own username and password created to login their account. If no account exists, they can click register with the “register” button.

Screen 2: Register account page

Here, users can register their own account limited to one account per user. They just need to fill in their details like name, username, identity card number, phone number, address and account password to create an account.

Screen 3: Menu button

Users can simply swipe right to access the menu button and navigate through the application. There are options like home (to go back to the main page), order details (to track their order), account (to manage their account) and logout.

Screen 4: Home page

From the top there is an AI called Cecee to assist users with voice command and type. On the bottom of the screen, there are 3 main services that users can choose, like applying for a job, ordering a cleaning service or renting cleaning tools.

Screen 5 : Applying for job page

Like screen 4, this page also has an AI to assist users while applying for a job. Users can describe what kind of cleaning job they are interested in, their experience and range of salaries to the AI and the AI will help them create a job resume to be sent to any nearby cleaning company. Users can choose either full time or part time jobs depending on their preferences in the specific area they want to.

Screen 6 : Cleaning service page

This page also has AI that helps to specify the users' needs in cleaning service. Users can just tell the AI and the AI will choose a suitable cleaning service for them. Then, users can specify the date and time they want the cleaning service with the location in case they want their car to be cleaned anywhere.

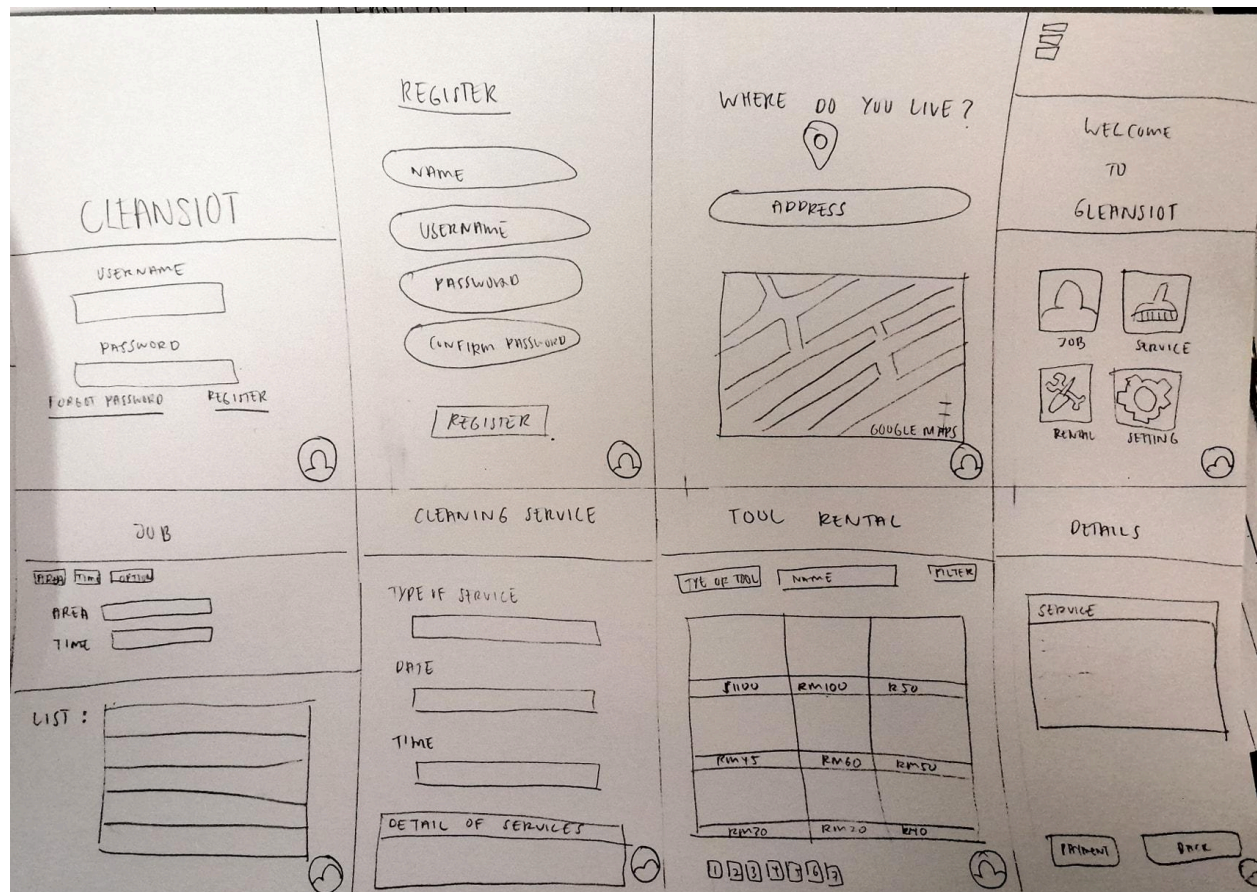
Screen 7 : Renting tools page

This page has an AI that helps users to choose suitable model tools while meeting the users budget. Users can look at the pictures of tools that have been sorted by AI according to the users specification and need. Lastly, users can choose the location for the tools to be delivered.

Screen 8 : Order details page

Like any other page, this page also has an AI to help users describe and remind them of their upcoming orders or jobs available. Users can navigate to the bottom of the page and click any orders they would like to modify or cancel and choose any job that they want based on the job application they submitted.

2.3 Alternative Design 3 - MUHAMMAD AIDIL HAIKAL BIN MAZALAN



Screen 1: The login page

This is the main entry point of the application, labeled with the app's name, "Cleansiot." Users are prompted to log in by entering their username and password into the respective fields. For those who have forgotten their credentials, there's a "Forgot Password" option to help recover access. Additionally, new users can click the "Register" button to create an account. The layout is minimalistic, ensuring ease of use for first-time visitors and returning users alike.

Screen 2: Register account page

This screen is designed for new users to register and create an account with Cleansiot. It includes input fields for the user's name, username, password, and a field to confirm the password for security purposes. Once the form is filled out, users can click the "Register" button to complete the process. This screen ensures a straightforward registration experience, paving the way for users to access the app's services.

Screen 3:Address button

Here, the app asks the user, "Where do you live?" to gather their location details. Users can input their address in the designated field or use the embedded Google Maps interface to pinpoint their location. This feature ensures that the app tailors its services, such as cleaning or tool rental, to the user's geographic area. It combines simplicity with functionality, helping users provide their location in a seamless manner.

Screen 4: Home page

This is the central hub of the Cleansiot app, welcoming users with the title "Welcome to Cleansiot." The screen features four large, visually distinct icons, each representing a core functionality of the app: Jobs, Cleaning Services, Tool Rentals, and Settings. Users can navigate to these sections based on their needs. This screen is designed to be intuitive, allowing users to access the app's features quickly and efficiently.

Screen 5 : Applying for job page

This screen is dedicated to managing jobs. Users can input details such as the area and time for a job, enabling them to schedule tasks efficiently. Below these input fields, a "List" section displays jobs or tasks, likely showing ongoing or completed work. The layout is practical and aimed at individuals or businesses who need to keep track of multiple tasks. It provides a clear interface for planning and organizing jobs in one place.

Screen 6 : Cleaning service page

This screen focuses on booking cleaning services. Users can specify the type of service they need, along with the preferred date and time. There's also a field to add detailed instructions or requirements for the cleaning task. The interface ensures that users can communicate their exact needs, making it easier for service providers to meet expectations. This screen is tailored for simplicity and personalization.

Screen 7 : Renting tools page

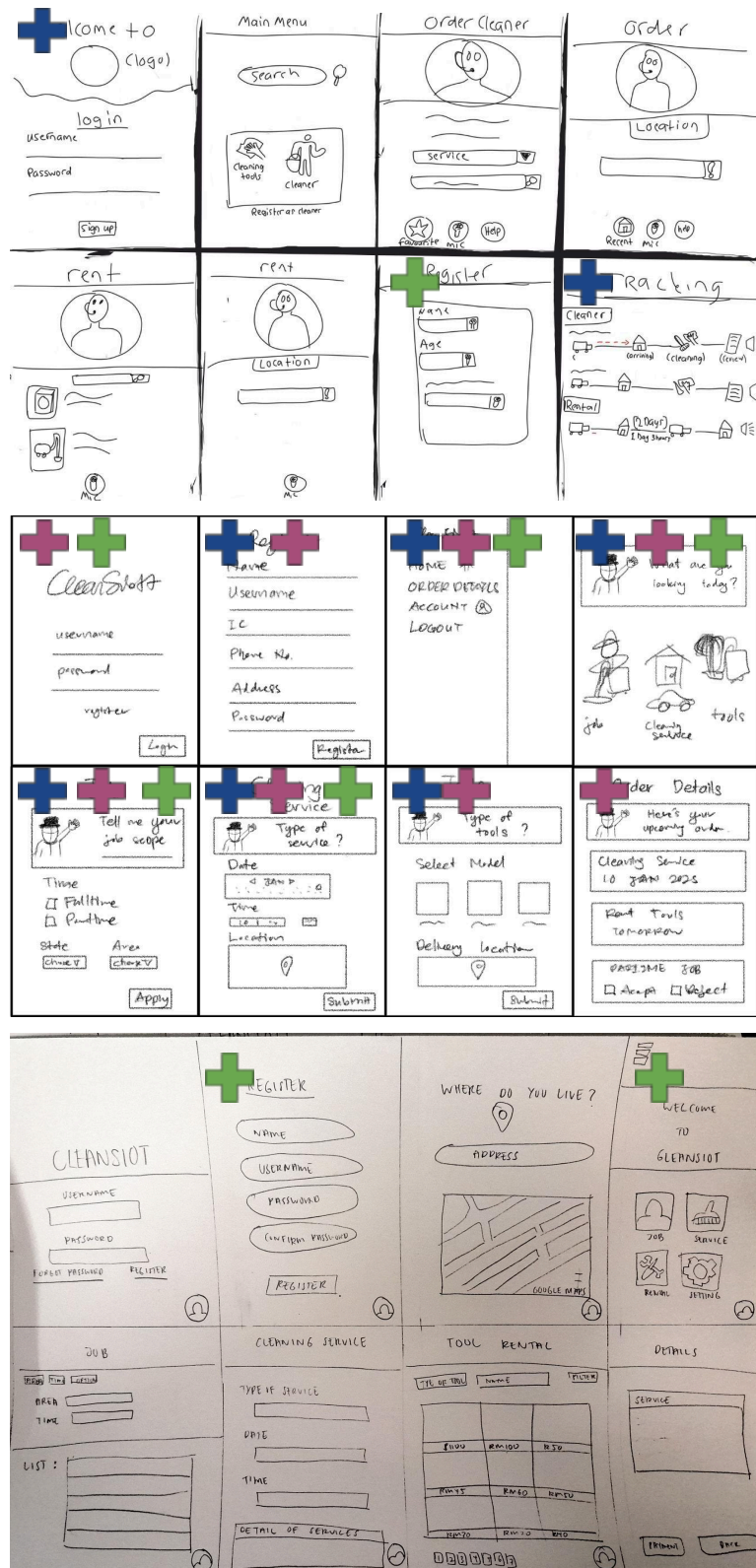
This screen caters to users who need to rent tools. At the top, there is a field for selecting the type of tool and applying filters to refine the search. Below, a table displays the available tools along with their rental prices and durations. Pagination at the bottom indicates that users can browse through multiple pages of available tools. This screen is structured to provide all the necessary details for users to make informed decisions when renting equipment.

Screen 8 : Order details page

This screen provides a detailed view of a selected service or job. It includes a summary of the service name and associated details, giving users all the information they need in one place. There are also options to print or save the information, making it convenient for users who need

physical or digital records. The screen is designed for clarity and usability, ensuring that users can review and manage their services effortlessly.

2.4 Scan of voted design layouts



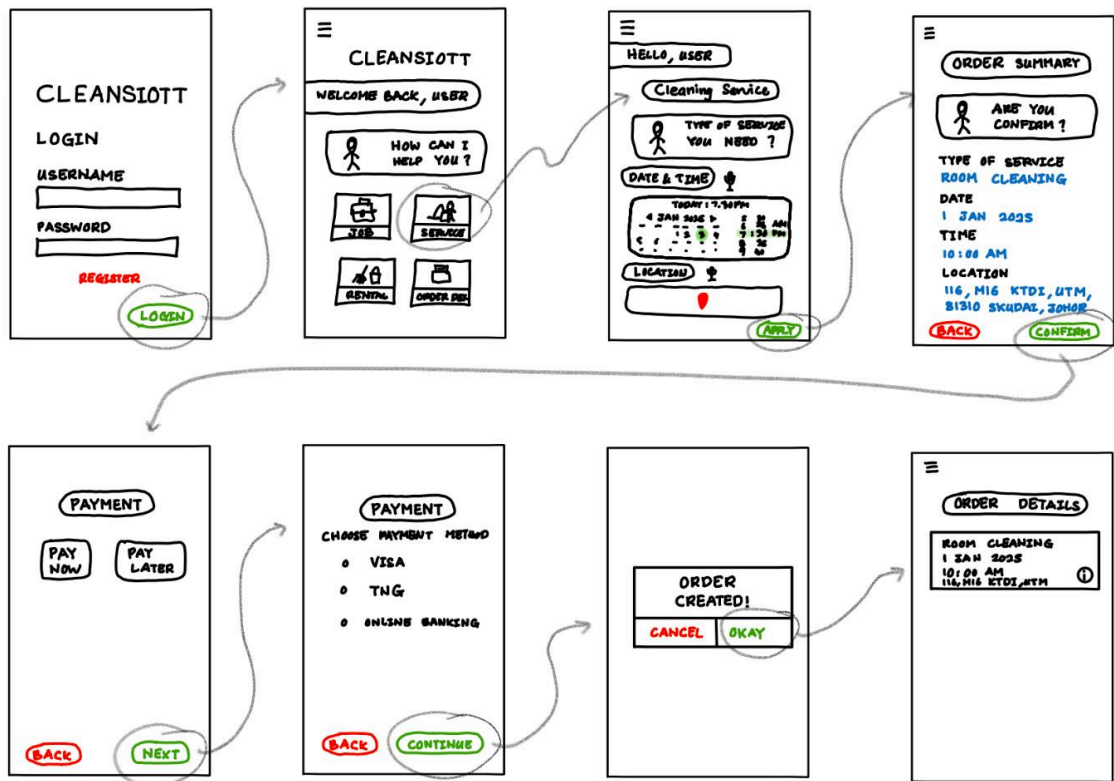
 : **IZZAT FAKHRULLAH BIN KARIM**

 : **MUHAMMAD AIMAN DANISH BIN MUHAMMAD EKHSAN**

 : **MUHAMMAD AIDIL HAIKAL BIN MAZALAN**

3.0 WIREFRAMES

3.1 Task 1 : Book a Cleaning Service



1. Gestalt Principles

Proximity: Elements grouped together, such as “Login” with the username and password fields and “Register”, help users identify related functions. This reduces cognitive load.

Similarity: Buttons with consistent colors like green for “Login”, “Apply”, “Confirm” or “Next” and red for “Register”, “Back” or “Cancel” to ensure uniformity and familiarity.

Continuity: The flow between screens follows a logical path (login → dashboard → service selection → summary → payment → order created), enhancing task predictability.

Figure-Ground: Clear distinctions between interactive elements like buttons, fields and the background maintain focus on key components.

2. Usability and UX Goals

Effectiveness: The design allows users to book cleaning services without confusion, meeting the functional goals of the app.

Efficiency: Users are guided through each step without unnecessary options, reducing time taken to place an order.

Learnability: Simple and intuitive navigation like service selection and payment methods to ensure new users can quickly adapt.

Error Prevention: Clear labels like “Back” and “Confirm” help prevent errors by giving users control over navigation.

Satisfaction: Visual simplicity and the structured flow enhance the user experience, reducing frustration.

3. Shneiderman’s Golden Rules

Consistency: Uniform button colors, text fields, and navigation patterns across screens maintain familiarity.

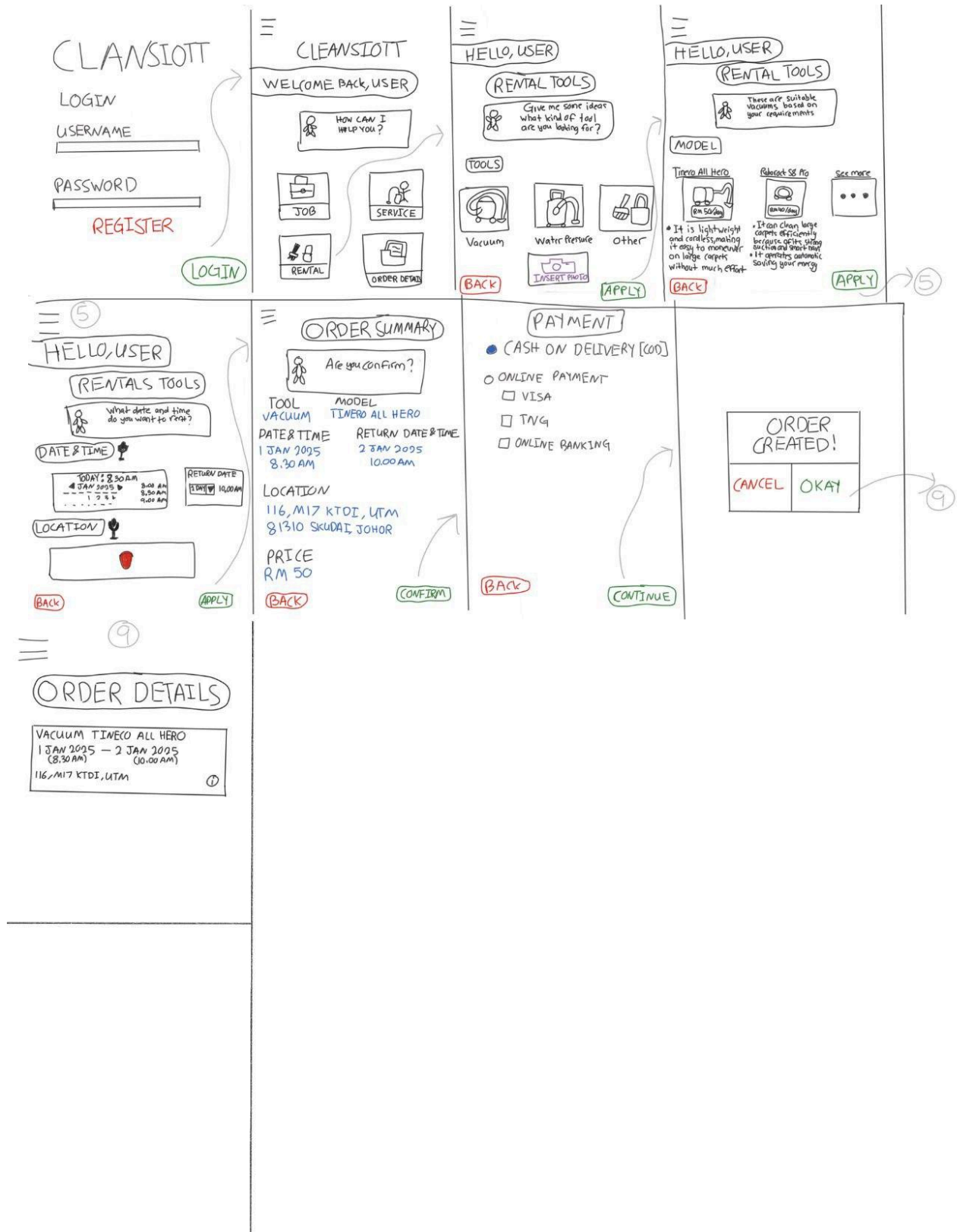
Cater to Universal Usability: Options like “Pay Now” or “Pay Later” address diverse user preferences, ensuring flexibility.

Offer Informative Feedback: The “Order Created” screen confirms successful completion, while a summary screen ensures order details are reviewed.

Design for Error Recovery: The “Back” and “Cancel” buttons provide users with the ability to undo or revisit earlier decisions.

Simplify User Control: Clear workflows like applying date/time and confirming service align with user control expectations.

3.2 Task 2 : Rent cleaning tools



1. Gestalt Principles

Proximity: The design makes it easy to see which elements belong together. For example, the date and time fields are grouped near the "Apply" button, so users intuitively know these are part of the same step. Plus, there's enough space between sections like selecting tools and confirming the order, making each task feel separate and manageable.

Similarity: Icons and text are styled consistently throughout the app. Whether you're selecting a vacuum or checking your payment options, everything looks and feels familiar, reducing confusion and helping users focus.

Continuity: The flow is smooth and logical, starting with login, moving through tool selection, and ending with payment and order confirmation. The steps follow a natural progression, guiding users seamlessly from one task to the next.

Figure-Ground: Interactive elements like buttons and input fields stand out clearly against the background. The design avoids unnecessary distractions, keeping users' attention on what's important, making choices and completing their order.

2. Usability and UX Goals.

Efficiency: The app is designed for speed. Essential functions like picking tools or choosing a payment method are easy to find and quick to access. No unnecessary clicks or complicated menus here

Learnability: Whether you're a first-time user or a regular, you'll find the language and icons easy to understand. Terms like "Login," "Register," and "Payment" are familiar, and clear visuals make navigating the app straightforward.

Error Prevention: Mistakes are less likely because the app gives users clear control. Buttons like "Back" and "Confirm" are well-labeled, so users know exactly how to review or correct their actions.

3. Shneiderman's Golden Rules

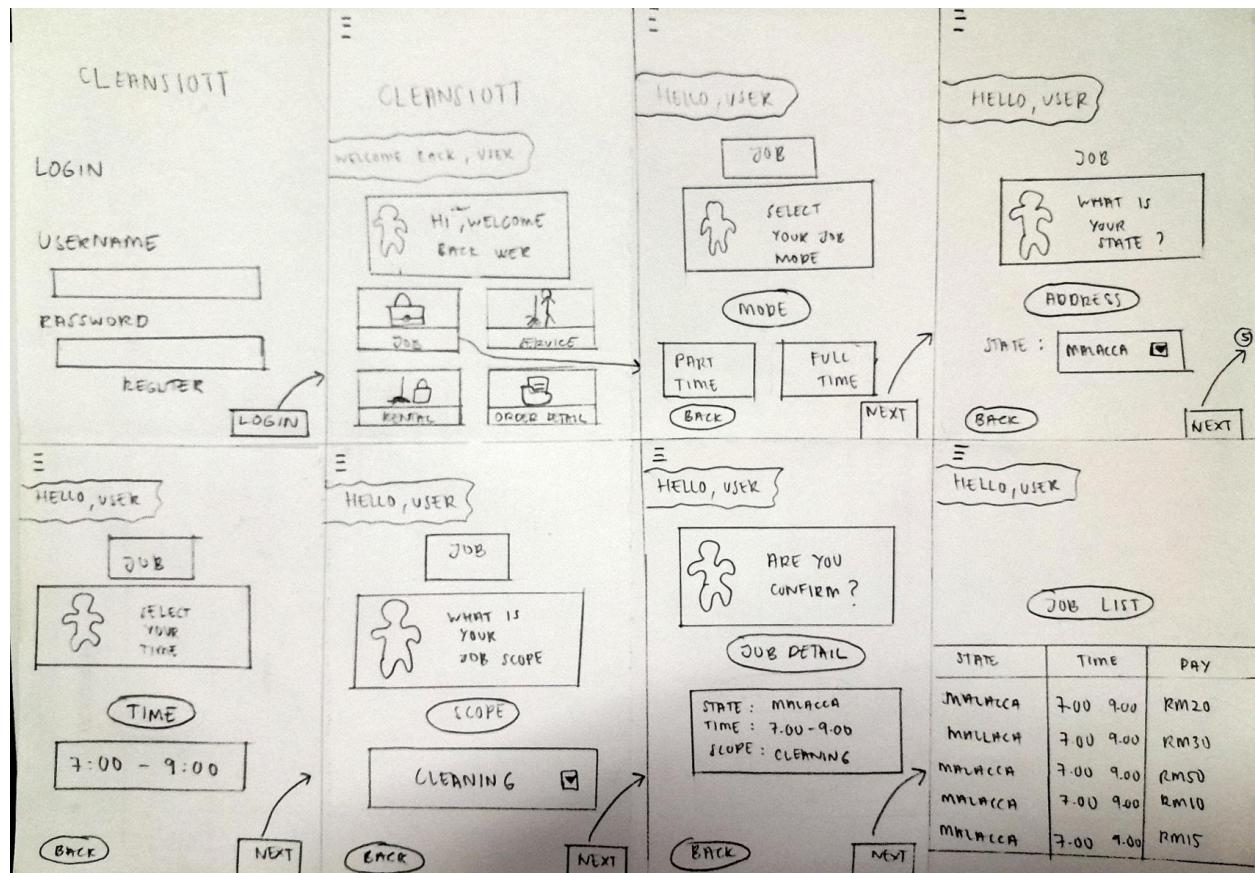
Keep it Simple: The design doesn't overwhelm with unnecessary features. Everything is streamlined to focus on the task at hand, whether that's selecting a tool or confirming an order.

Consistency: The layout and functionality stay consistent from start to finish. Buttons, text, and icons are in predictable places, making it easier for users to find what they need without guessing.

Offer Informative Feedback: Users get helpful updates at every step. The summary screen lets them double-check details, and the final "Order Created" screen confirms everything went smoothly.

Design for Error Recovery: The “Back” and “Cancel” buttons provide users with the ability to undo or revisit earlier decisions.

3.3 Task 3 : Applying job as a cleaner



1. Gestalt Principles Applied

Proximity: The app design organizes related elements closely together to establish clear groupings. For example, The state selection, job scope, and time selection screens each group their respective inputs and buttons closely. Sufficient spacing between different tasks, like selecting job mode and confirming details, ensures clarity and avoids confusion.

Similarity: Consistent iconography and design elements create a unified look and feel. For example, the person figure icon appears on multiple screens, reinforcing familiarity. Button styles and placement remain consistent across screens such as “Back” and “Next” buttons. This ensures users intuitively know how to navigate.

Continuity: The progression of steps from login to selecting job details to confirmation is logical and follows a natural flow. Each step builds on the previous one, minimizing cognitive load.

Figure-Ground: Interactive elements, such as input fields and buttons, stand out clearly against the simple background. This makes it easy for users to identify actionable elements without distraction.

2. Usability and UX Goals

Efficiency: The app minimizes the effort by guiding users step-by-step. For instance, the "Next" and "Back" buttons allow users to navigate quickly without unnecessary clicks or confusion. Important options like job mode, state, time, and scope are presented in a straightforward manner.

Learnability: The use of familiar language like "Job", "Mode", and "State" and also intuitive icons ensures users can quickly understand each step. The Clear labels on buttons and input fields make navigation straightforward, even for first-time users.

Error Prevention: The app includes options to review and confirm details before submission, such as the "Are You Confirm?" screen. Navigational buttons like "Back" prevent users from making irreversible mistakes, allowing them to revisit and modify previous inputs.

3. Shneiderman's Golden Rules

Keep it Simple: The interface focuses solely on the task of job application, avoiding unnecessary features or distractions. Each screen focuses on a single action such as selecting job mode. This ensures simplicity.

Consistency: The design maintains consistent button placement, typography, and iconography throughout the app. Users always find the "Back" button on the left and "Next" on the right, reinforcing predictability.

Offer Informative Feedback: The app provides feedback at key stages. For example, the "Job Detail" screen displays a summary of the selected state, time, and scope, confirming user choices. The final "Job List" screen shows available jobs with details like pay and time, ensuring transparency.

Design for Error Recovery: Users can easily navigate back to previous screens to correct errors using the "Back" button. The confirmation screen allows users to double-check details before submitting, minimizing mistakes.

4.0 INTERACTION METAPHORS

1. Food Metaphor (Looks like burger shape)



Burger icon / Menu tab : Represent menu, This icon is placed at the top left corner, when the user click on this icon, it will show the user the options such as “Home”, ”Job”, “Cleaning Service”, “Rental Tools”, and “Order Details”, giving user easier access to other parts of the application interfaces.

2. Communication Metaphor



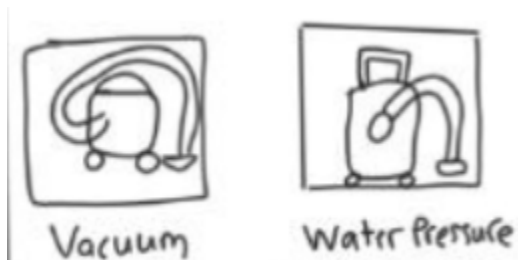
Microphone icon : Indicates voice functionality, This icon is designed to make the application more user friendly, as the user does not need to type the location for example, but instead they just click the icon, and start saying their location.

3. Media Metaphor



Camera icon : Represents taking photos or accessing galleries. This icon helps users to identify the tools that they wanted but do not know the name of the tools. This icon is placed in “Rental Tool” interface.

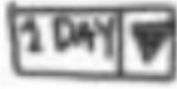
4. Card Metaphor



Dashboard : Show service options and tools options. The service and tool options are displayed clearly and neatly as interactive icons. This setup makes it easy for users to explore the available

choices and pick what they need with just a click, this ensures everything feels simple and straightforward to use.

5. Shape Metaphor



Inverted triangle : Options to return date, This icon indicates the option of day of renting. The user can choose how long they want to rent the tools.

LINK BLOG : <https://sites.google.com/view/group3-trios2/phase-3>