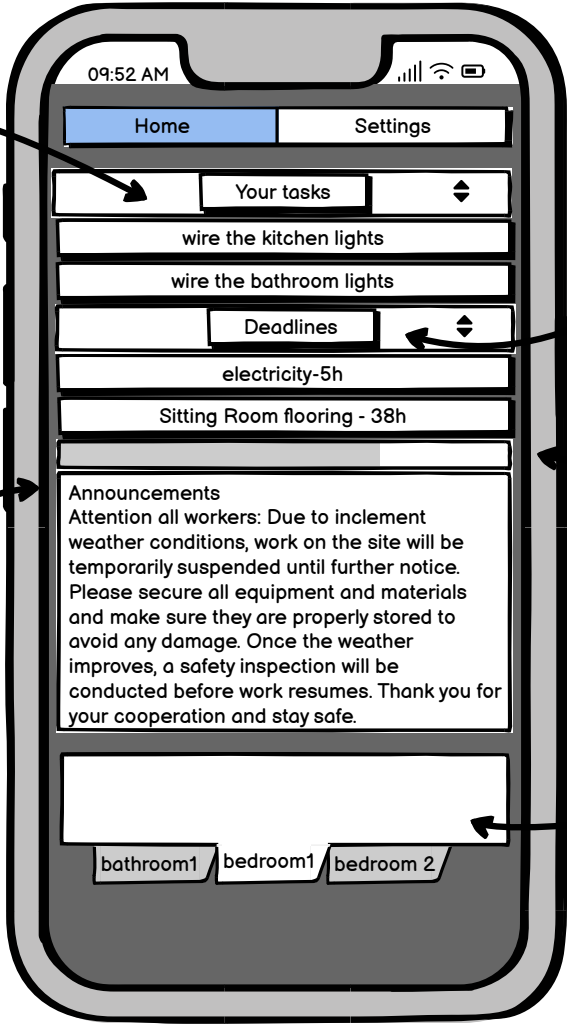


# TaskMaster

**Task Assignment and Completion Tracking:** The app includes a feature that allows workers to view all their assigned tasks on a single page, which is curated by their supervisor. Each task is associated with a deadline and relevant information such as task description, location, and required resources. Once a worker completes a task, they can mark it as complete by clicking on it and filling out the necessary information, including their name and the time and date of completion. This information is then stored and can be used for future reference or to generate reports. Additionally, the feature enables supervisors to monitor and track progress on the construction site, identify bottlenecks, and make necessary adjustments to keep the project on track.

**Real-time Announcements:** The app includes a feature that enables supervisors to broadcast announcements to all workers on the construction site simultaneously. This feature ensures that everyone is informed of important updates and announcements at the same time, and no one is left behind. The announcements can be about changes in project scope, safety guidelines, weather conditions, or any other critical information that workers need to be aware of. Once an announcement is posted, workers are notified in real-time, and they can access it through the app. This feature eliminates the need for supervisors to disseminate information manually, which can be time-consuming and error-prone. It also facilitates communication between workers and supervisors and creates a more informed and engaged workforce. With real-time announcements, everyone on the construction site can be on the same page and work towards the same goals.

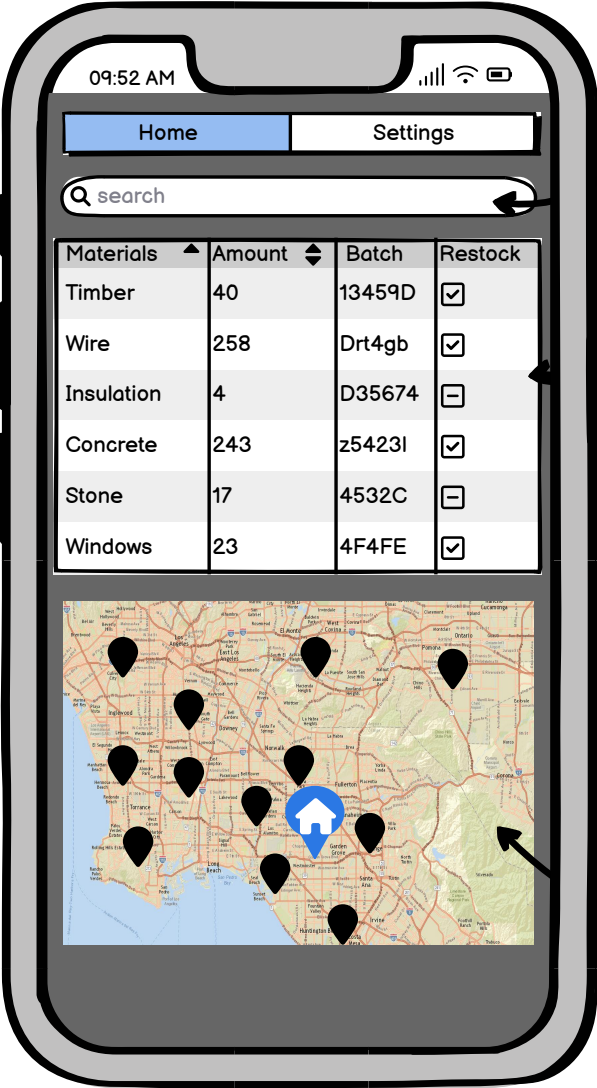


**Deadline Management:** The app includes a feature that allows workers to view all the deadlines associated with their assigned tasks on a single page. If a worker clicks on the feature, they can view all the deadlines associated with their assigned tasks, and sort them by priority, due date, and project phase. This feature helps workers stay organized and plan their work accordingly, to ensure that all deadlines are met on time. If a worker doesn't click on the feature, the app displays the first two deadlines in order of time left, as a reminder. This feature is critical for time management on construction sites and helps to ensure that all projects are completed on time. By using the app, everyone on the construction site can have access to the same deadlines, which facilitates collaboration and coordination between workers and supervisors.

progress bar showing how much work is left on site once complete people will know that the project is done

The app includes a feature that enables workers to write notes about how they feel each room in the construction project is progressing. These notes can include observations about the quality of work, the efficiency of the work process, and any concerns or suggestions workers may have. This feature allows workers to provide feedback to their supervisors on how they think the project is progressing and what can be improved.

**Supervisor Access:** Once a worker submits a note, the supervisor can view it and take appropriate action. This can include addressing any issues raised by the worker, making changes to the construction plan, or providing feedback to the worker on their performance. The supervisor can also view notes from other workers and analyze the feedback to improve the project overall. By encouraging workers to provide feedback, the supervisor can create a more collaborative work environment where everyone feels heard and valued. This can lead to improved worker morale and productivity, as well as a higher quality of work.



A search bar feature can be a valuable addition to a construction site inventory management app. It allows users to quickly search for specific materials or products in their inventory and check their availability, quantity, and location. This feature can be particularly useful when the user needs to find a specific item quickly or when they are unsure if the item is in stock.

The search bar feature works by allowing the user to type in keywords related to the item they are looking for, such as product name, part number, or description. The app then searches the inventory database and returns a list of results matching the search terms. The user can then select the item they need and view its current stock level and location within the inventory.

Having a search bar feature in the inventory management app can help construction companies to streamline their inventory management processes. It can save time and effort spent on manually searching through inventory lists or physically inspecting the stock. The search bar feature can also help to prevent over-ordering of materials by allowing the user to check the availability of an item before placing an order.

Managing stock inventory on a construction site is a critical aspect of ensuring timely completion of the project. Running out of essential materials such as wires or timber can cause significant delays and additional costs. Therefore, having an effective inventory management system in place can help prevent these issues and enable the project to run smoothly.

An app that allows construction companies to monitor their inventory of construction materials in real-time can be beneficial for several reasons. Firstly, it helps to avoid any delays in construction due to a lack of essential materials. The app can send notifications when the inventory of a particular item falls below a certain level, allowing the team to reorder the necessary materials before they run out. This feature can also help to reduce the chances of over-ordering materials, which can result in additional storage and transportation costs.

tracking inventory in real-time provides an accurate picture of the site's stock levels, helping project managers to make informed decisions regarding the site's requirements. With this information, project managers can determine when to order additional materials or adjust the project timeline to accommodate delays caused by material shortages. This level of control can result in better project planning, reduced downtime, and increased efficiency.

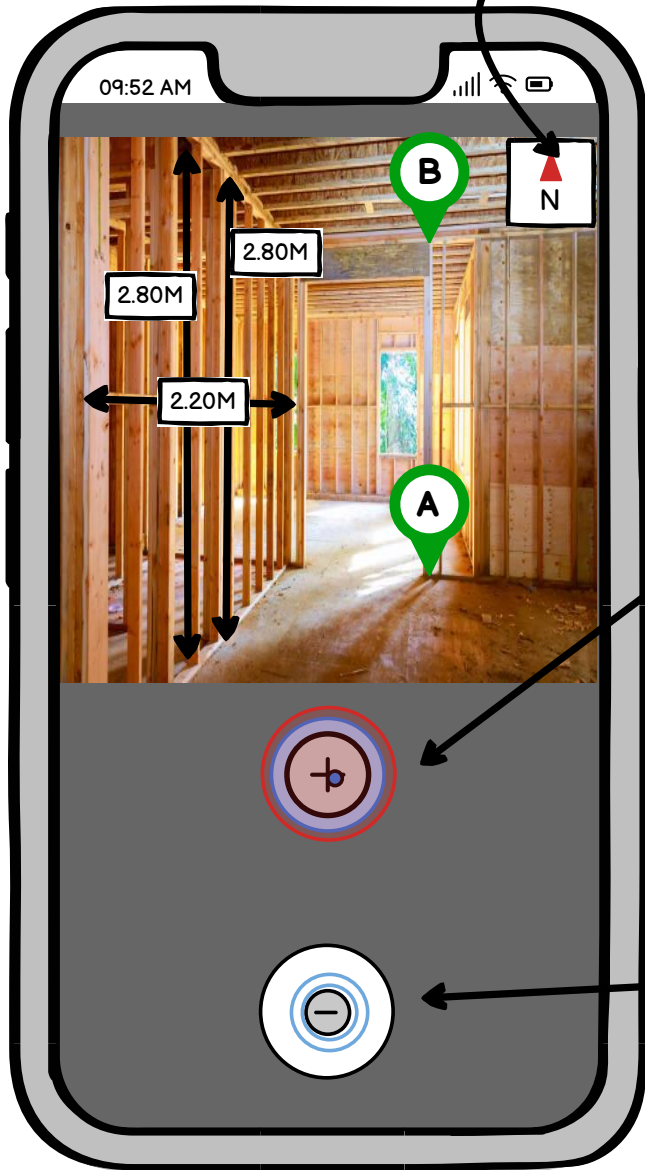
having access to accurate inventory data can help construction companies to reduce costs associated with material waste. By tracking material usage, the app can help to identify areas where waste can be minimized, allowing the company to reduce the amount of materials required for the project. This can help to reduce material costs and minimize the environmental impact of the project.

A map feature can be a valuable addition to a construction site inventory management app. It allows users to locate local dealers or suppliers of construction materials, such as timber and wire, and helps them to quickly replenish their inventory when it runs low. The map feature can also be useful for users who want to explore new suppliers or materials for their construction projects.

The map feature works by displaying the user's location and the locations of nearby dealers or suppliers on a map. The user can select a dealer or supplier from the map, view their contact information, and get directions to their location. This feature can be particularly useful when the user needs to quickly replenish their inventory of materials or when they want to explore new suppliers or materials for their project.

The map feature can also provide valuable insights into the availability of construction materials in different areas. By analyzing the location of dealers and suppliers on the map, the app can identify areas where certain materials may be more readily available, helping users to plan their inventory purchases accordingly. This feature can also help users to identify potential new suppliers in areas where they may not have previously considered.





An in-app compass feature can be a valuable addition to a construction app, providing benefits for professionals working in the construction industry.

The compass feature allows construction professionals to determine the direction of North, which is important for orienting themselves and their tools on a job site. This can be especially helpful when working on large projects or in unfamiliar locations. It also aids in navigation around a job site, identifying landmarks or reference points.

The advanced algorithms and sensors used in the compass feature provide accurate readings, ensuring that construction professionals get the correct direction of North every time. This saves time by allowing them to quickly and easily determine the direction without having to use traditional compass tools.

Moreover, an in-app compass feature improves collaboration among construction professionals, as they can easily communicate and ensure that they are all working in the same direction. This helps prevent errors and mistakes on the job site.

Having a leveler app feature in your construction app is a useful tool for professionals working in the construction industry. A leveler app feature allows construction professionals to measure the slope and angle of a surface, which is crucial for ensuring that surfaces are level and stable. Here are some benefits of having a leveler app feature in your construction app: With a leveler app feature, construction professionals can quickly and easily measure the slope and angle of a surface without having to use traditional leveling tools, such as a spirit level or plumb bob. This saves time and increases efficiency on the job site. A leveler app feature uses advanced algorithms and sensors to calculate the slope and angle of a surface, which ensures a high level of accuracy. This is crucial in the construction industry, where even small deviations from level can have significant consequences. A leveler app feature can be used to measure the slope and angle of a variety of surfaces, including walls, floors, and roofs. This makes it a versatile tool for construction professionals who work on a variety of projects. Traditional leveling tools can be expensive to purchase and maintain. A leveler app feature is a cost-effective alternative, as it can be downloaded and used on a smartphone or tablet. With a leveler app feature, construction professionals can easily share measurements with other team members, which can improve communication and collaboration on the job site. This can help ensure that everyone is working towards the same goals and can help prevent errors and mistakes.

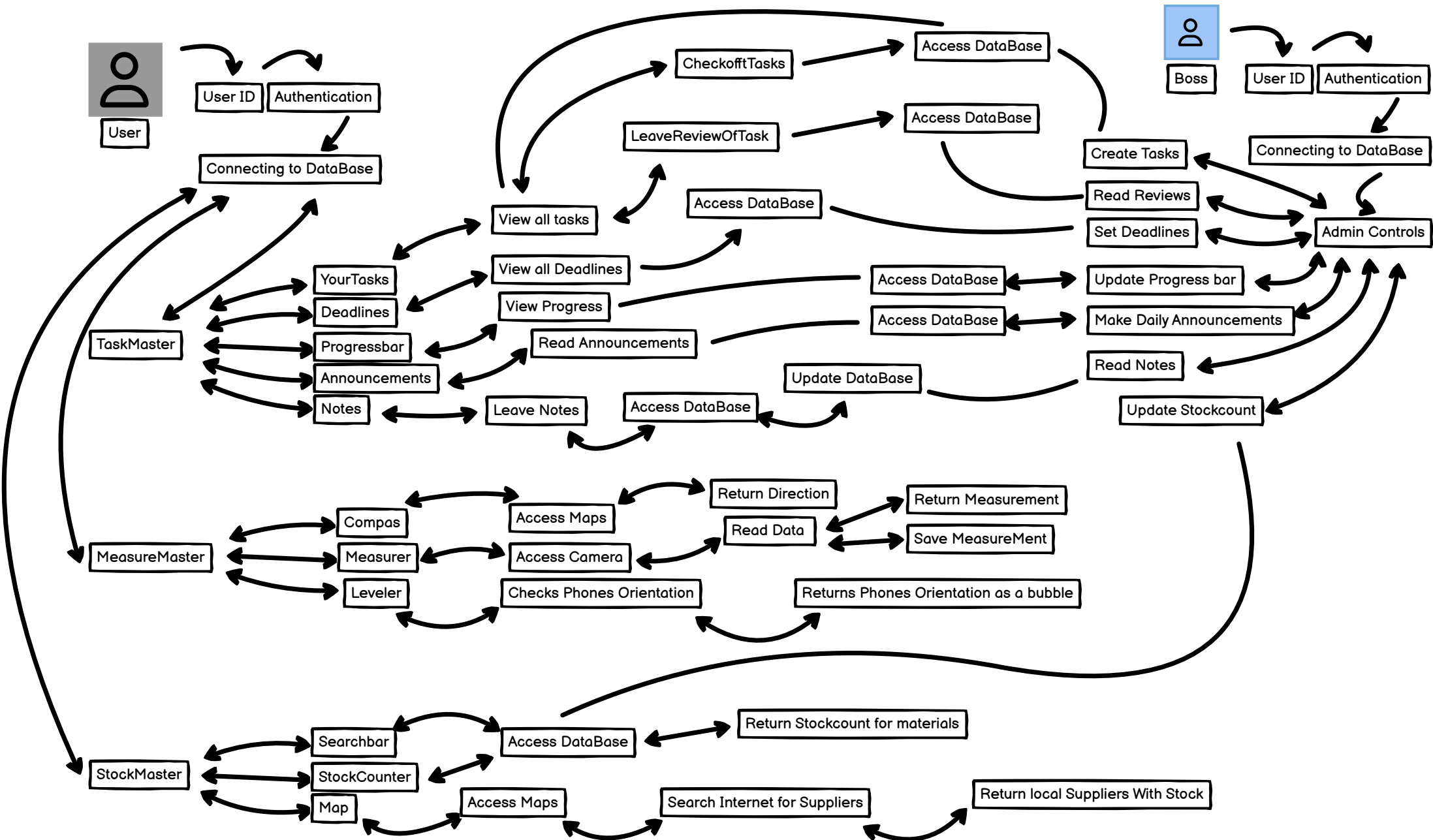
In conclusion, having a leveler app feature in your construction app can save time, increase accuracy, and improve communication and collaboration on the job site. It is a cost-effective and versatile tool that can benefit construction professionals working on a variety of projects.

Having an app feature that can measure the length of an object using a camera is a highly useful tool in a construction site. This feature is commonly known as a "distance measurement tool" or "dimensioning tool". It allows construction professionals to quickly and accurately measure distances, which can help them plan and execute construction projects more efficiently.

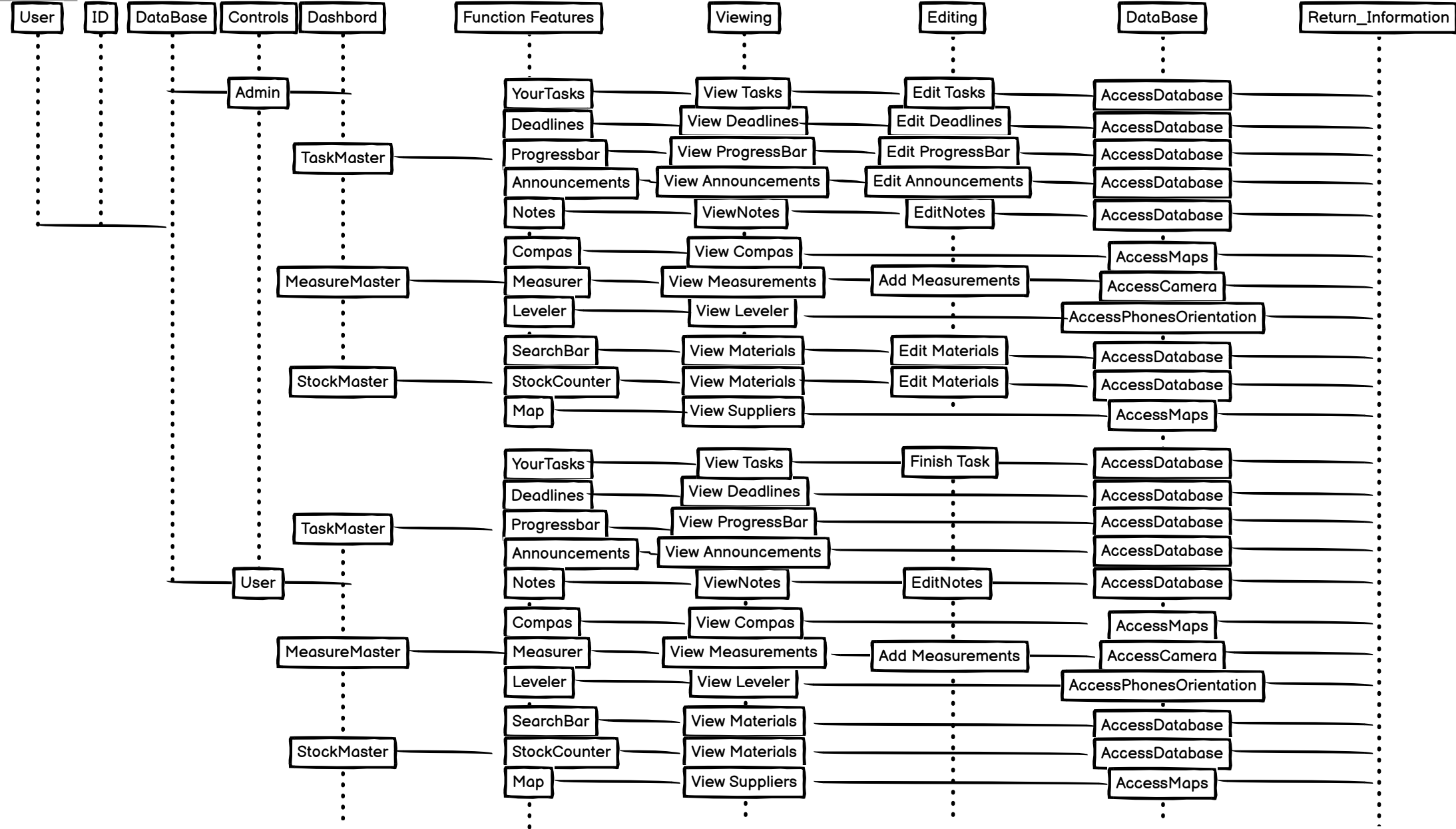
The benefits of using a camera-based measurement tool in a construction site are numerous. Firstly, it saves time and effort compared to traditional measurement methods, such as using a tape measure or ruler. With the app, you can simply take a picture of the object you want to measure, and the app will automatically calculate the distance. Camera-based measurement tools are highly accurate. They use advanced algorithms and computer vision techniques to calculate distances, ensuring that you get an accurate measurement every time. This level of accuracy is especially important in the construction industry, where even small measurement errors can have significant consequences. Using a camera-based measurement tool can help reduce errors and mistakes. With traditional measurement methods, there is always a risk of human error. However, with an app feature that measures distances using a camera, there is less room for error. Finally, having a camera-based measurement tool in a construction site can help improve communication and collaboration among construction professionals. With the app, measurements can be quickly and easily shared between team members, ensuring that everyone is on the same page and working towards the same goals.

In conclusion, having an app feature that can measure the length of an object using a camera is a highly valuable tool in a construction site. It saves time and effort, is highly accurate, reduces errors and mistakes, and improves communication and collaboration among team members.

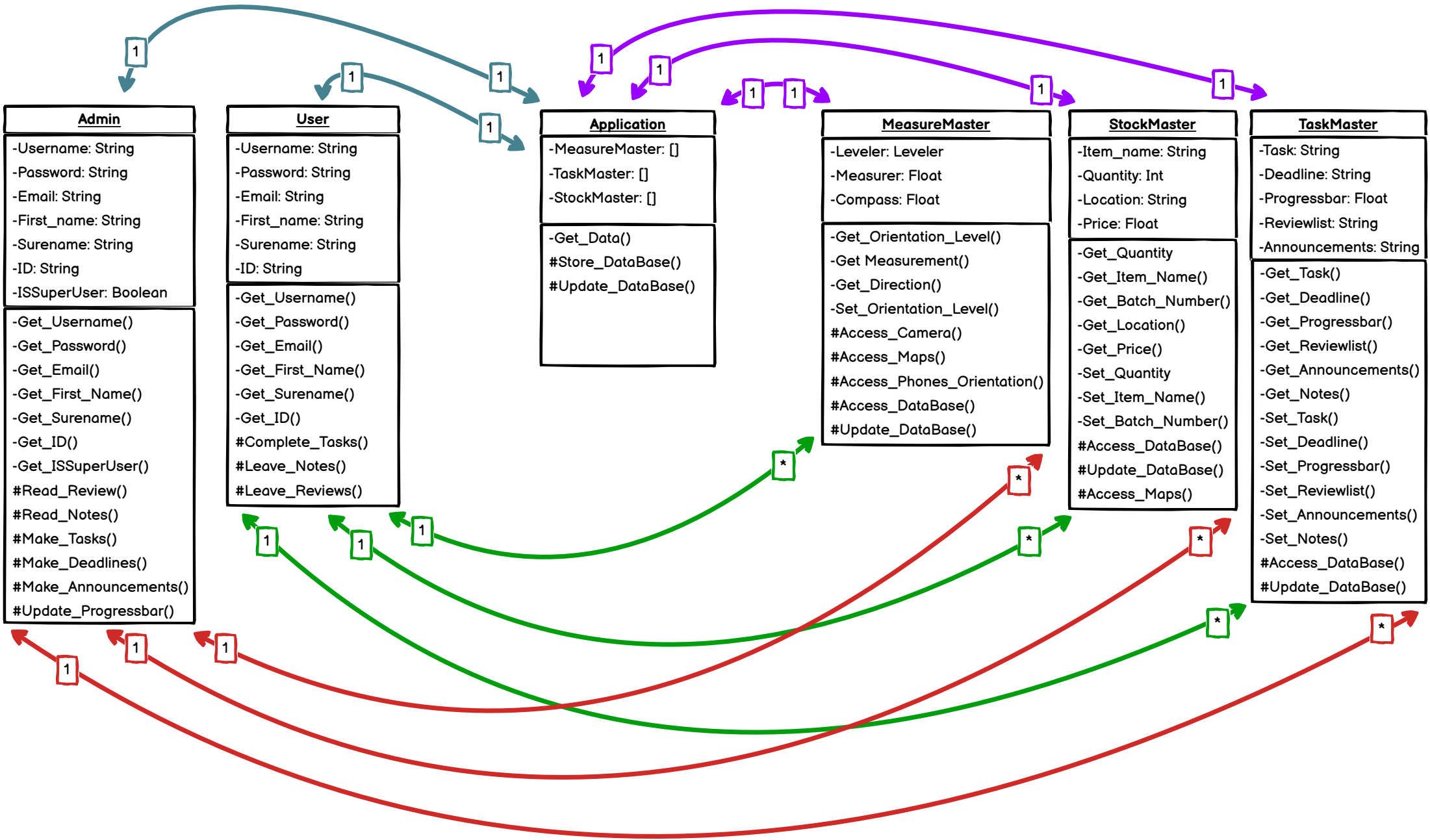
## Use-Case-Diagram



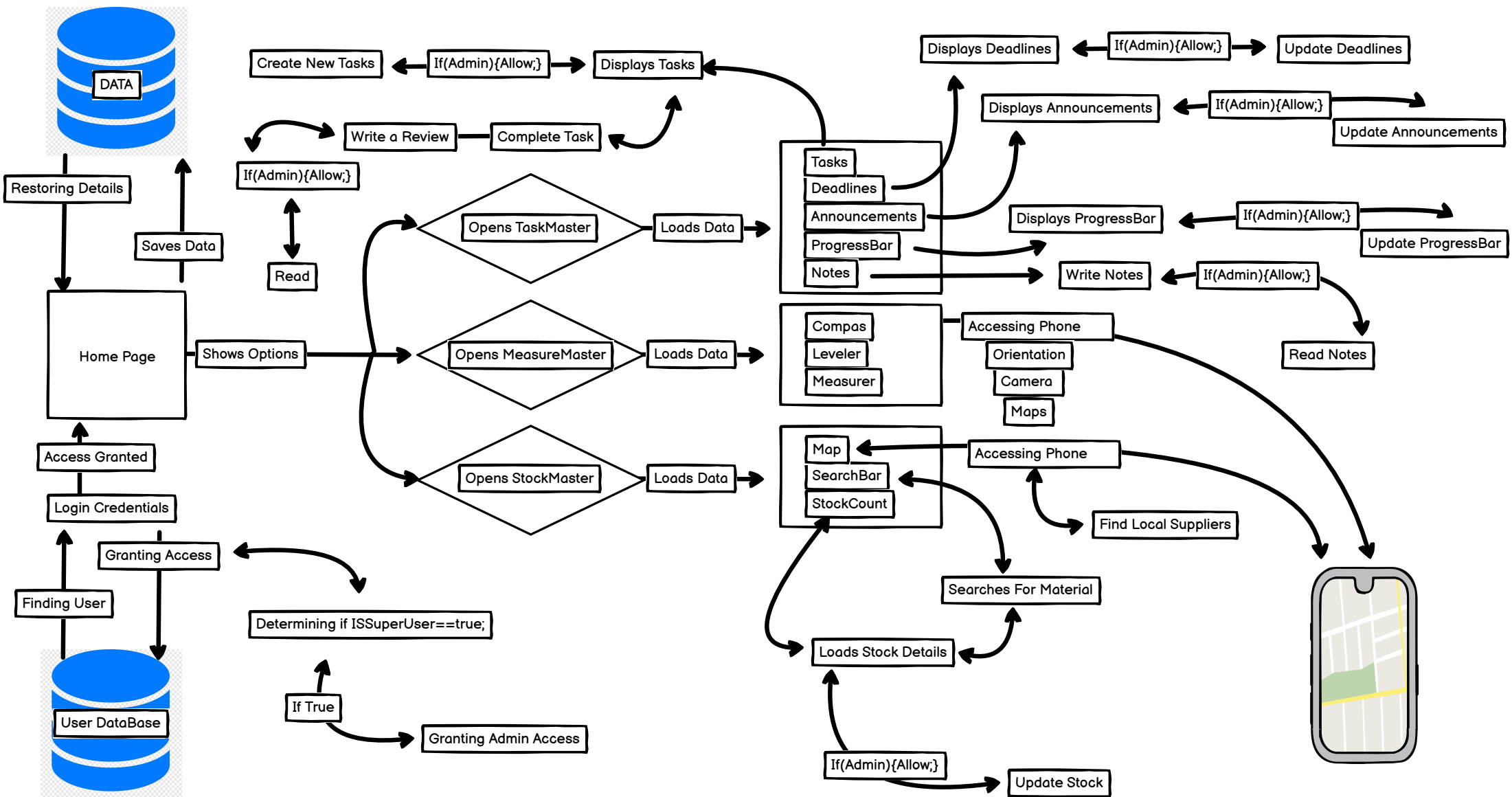
Sequence-Diagram



Class-Diagram



Architecture-Diagram





## System Tests

Name	Scenario	Test Steps	Expected Results	Actual Outcome
User Authentication System Test Plan	A user enters valid credentials to log in to the system and is granted access based on their role and permissions.	Test login with valid credentials and verify access based on role and permissions. Test access to unauthorized features and functions with appropriate error messages. Test logout and access without logging in. Test login with invalid credentials and verify error message	The system should authenticate users, grant access based on their role and permissions, restrict unauthorized access, prompt error messages for unauthorized access attempts, and ensure proper authentication and session management.	The system ensures secure and authorized user access, with proper authentication, role-based permissions, and error handling.
Task Management System Test Plan	A user creates a new task, edits an existing task, and deletes a task	Create a task by filling out the form and saving it. Edit and update the task details and save changes. Delete the task by clicking the delete button, confirming deletion, and verifying the task is removed	The system should allow the user to successfully create, edit, and delete tasks, with appropriate permissions and access control	The system enables task management with proper permissions, access control, and notification features, allowing users to create, edit, and delete tasks, and view, sort, filter, search, assign, set reminders, add comments, and attach files to tasks. It enforces secure storage, data validation, and error handling for reliable task management.
Stock Management System Test Plan	A user adds a new product to the stock, updates the product details, and removes the product from the stock	Access "Stock Management" tab. Add product by filling required fields and clicking "Save". Edit product details by clicking "Edit", modifying details, and clicking "Save". Remove product by clicking "Remove" and confirming removal.tock successfully	The system should allow the user to successfully add, update, and remove products from the stock, with appropriate permissions and access control.	The system allows users to manage product stock with permissions, adding, updating, and removing products, and setting details like quantity and location. Accurate stock levels are maintained for inventory management, with notifications for new and updated products and secure data storage.
Measurement Tool System Test Plan	A user uses the measurement tool to measure a distance or calculate an area	Select unit. Click "Measure Distance" or "Measure Area". Click start point. Move to endpoint/outline area. Click "Finish". Verify correct measurement. Optional: save or export results. Repeat for new locations/areas.	The system should allow the user to successfully measure distances or areas on the map, using accurate and reliable methods	The system provides a measurement tool that allows the user to measure distances or areas on the map, adjust units, accuracy and precision, save, export, and share results. The system enforces access control, data validation, and error handling, and provides a user-friendly interface for various applications such as planning, construction, or research.
Stock Search System Test Plan	A user searches for a specific product in the stock using the search feature	Search and filter products in the "Stock Management" tab by entering a search term and verifying search results, then select a product to view and optionally modify or remove it. Repeat for different search terms.	The system should allow the user to successfully search for products in the stock, using accurate and efficient methods, and display the results in a clear and organized manner.	The system allows efficient searching and filtering of products in the stock, with real-time feedback and clear presentation of results. It also enforces proper access control, data validation, and error handling, and ensures secure storage of search data. The search feature is user-friendly and reliable, enabling users to find the products they need quickly and accurately.
Low Stock Alert System Test Plan	A user receives a notification when a product stock reaches a low level	To test the low stock alert feature, specify the minimum stock level for each product and the notification method. Create or update a product with a quantity below the minimum stock level and wait for the next stock update cycle or trigger the update manually. Verify that the low stock alert notification is sent to the appropriate recipient(s) using the selected method.	The system should allow the user to set up and receive low stock alerts for each product in the stock, using reliable and customizable methods, and ensure that the alerts are accurate and actionable.	The system enables users to set up low stock alerts with customizable methods, monitors stock levels, and sends actionable notifications when stock falls below the minimum level. It enforces access control, data validation, and error handling, and provides a user-friendly and reliable feature.
Supplier Map System Test Plan	A user can view and manage the locations and details of suppliers on a map	Perform a functional test on the Supplier Map feature by verifying the correct display of map view, markers, and supplier details. Additionally, test editing, searching, exporting, sharing, and other optional features for proper functionality. Ensure proper validation, data privacy, security, and error handling. Test multiple suppliers, locations, and scenarios.	The system should have a user-friendly interface for managing supplier locations and details, while ensuring data accuracy and security.	Supplier Map is a user-friendly interface for managing supplier locations and details. The system enables users to view, edit, search, and share supplier data securely. The feature enforces access control, data validation, and error handling to ensure data privacy and security.