MCI Project LS1 - Warehouse Packing

- Product Demo and Interaction Diagram V2

By: Ruxin Ma

Home Page

Welcome Back!

○ Manager   ○ Worker

Username   [   ]

Password   [   ]

Don't have an account? **Sign up**

[Log in]

Welcome Back!

● Manager   ○ Worker

Username   [Jac|]

Password   [*******   👁]

Don't have an account? **Sign up**

[Log in]

Default Login Page (Home Page)

User Status: Not logged in
• Login button is initially grayed out and not clickable
• Form fields are in inactive state
• "Manager" option is selected by default, user can click to switch to "Worker" option

V2 Added:
Click the 'Sign Up' switch to create an account popup

Activated Login Page

User Status: Not logged in
• Login button becomes clickable only when both username and password fields have input
• Password field is hidden by default, with a "Show/Hide" toggle button provided
• Input is truncated when it exceeds the field width, preventing further input
Others:
The definition of Username and Password requirements (length/characters)

Home Page

Join PackPilot

○ Manager   ○ Worker

Username [   ]

Password [   ]

Already have an account? **Log in**

Sign Up

Join PackPilot

● Manager   ○ Worker

Username [Jac|]

Password   Tfjskc34s

Already have an account? **Log in**

Sign Up

Default Sign up Page

User Status: Not logged in
- SignUp button is initially grayed out and not clickable
- Form fields are in inactive state
- "Manager" option is selected by default, user can click to switch to "Worker" option

V2 Added:
Click the 'Log in' switch back to Log in
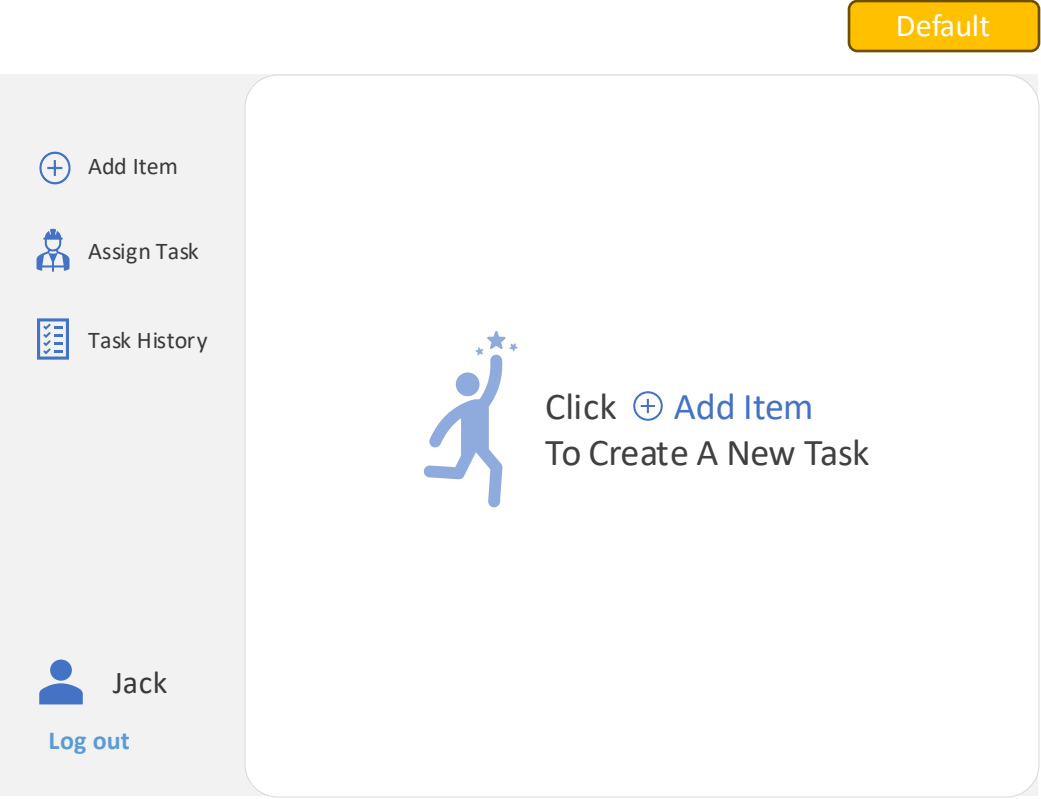
Activated Sign up Page

User Status: Not logged in
- Sign up becomes clickable only when both username and password fields have input
- Password field is displayed
- Input is truncated when it exceeds the field width, preventing further input

Others:
The definition of Username and Password requirements (length/characters)

Manager Console Page

Left panel (Default state):

- ⊕ Add Item
- 👷 Assign Task
- ✅ Task History

Click ⊕ Add Item
To Create A New Task

👤 Jack

Log out

Right panel (Active state):

- ⊕ Add Item
- 👷 Assign Task
- ✅ Task History

👤 Jack

Log out

Name	Size	Direction	Note		
Item0001	10*200*300	face up	fragile	✏	✕
Item0001	10*200*300	face up	fragile	✏	✕
Item0001	10*200*300	face up	fragile	✏	✕
Item0001	10*200*300	face up	fragile testing testing testin...	✏	✕
Item0001	100*2000*3000	face up	fragile	✏	✕
Item0001	100*2000*3000	face up	fragile	✏	✕
Item0001	100*2000*3000	face up	fragile	✏	✕
Item0001	100*2000*3000	face up	fragile	✏	✕
Item0001	100*2000*3000	face up	fragile	✏	✕
Item0001	100*2000*3000	face up	fragile	✏	✕

Default State of Manager Page
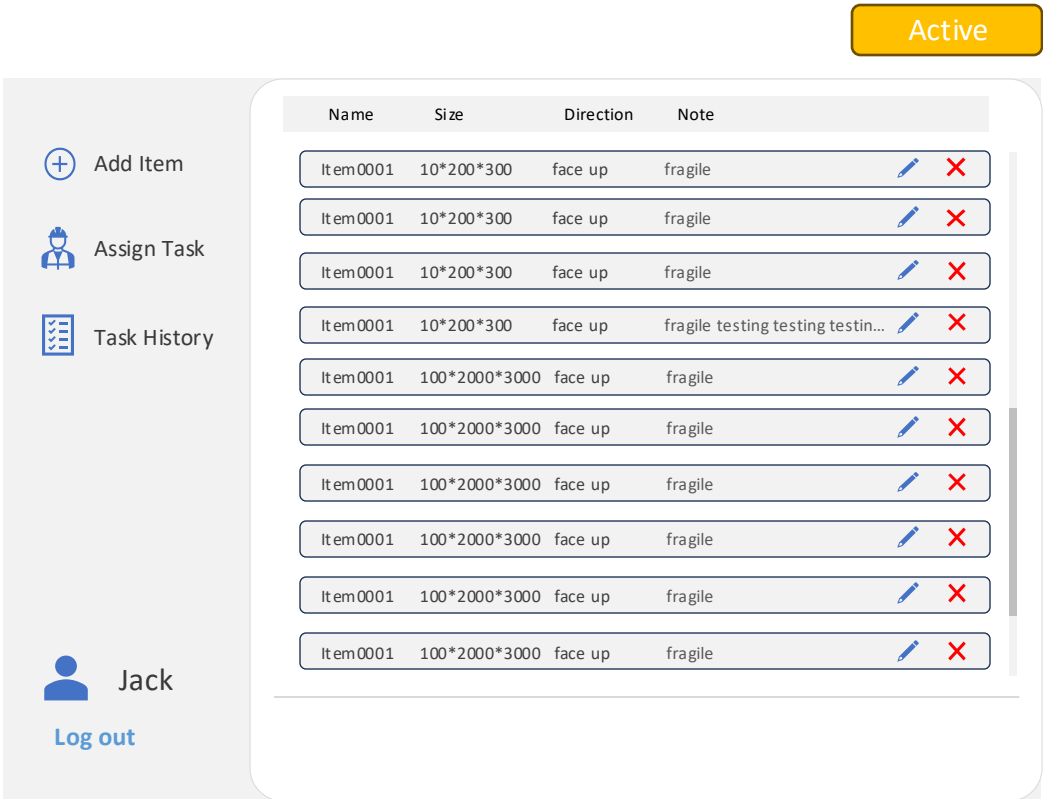
User Status: Manager logged in
The left sidebar is the console area, and the right displays list of added items.
The right side is empty in the following cases:
- Display all the added but not assigned tasks (if no added item, display a default note)
- After manager assigns a task, list will remove all the assigned items (unassigned items will remain)

Interactions:
- Click buttons on the left sidebar, trigger operation popups on the current page
- Click "Logout" displays a confirmation popup; after confirm, returns to the home page

Active State of Manager Page

User Status: Manager logged in
- When a manager adds an item, a new item is added to the list with its detailed info displayed
- Text that exceeds the form width is truncated with ellipsis
- When added items exceed the container, adjustment controls appear to support vertical scrolling
- Backend/frontend needs to limit the max number of items a user can add per task (e.g., 50 items)

Interactions:
- Click edit button brings up the "add item" popup with the item's current parameters pre-filled
- Click delete button displays a confirmation popup; click confirm removes the item from the list

Manager Console Page - Popups

Add Item

Item Name | Item0023

Length* (cm) | Width* (cm)

Height* (cm)

Direction* | ▼

Note

Close | Continue

Add Item

Assign Ta...

Task Hist...

Jack

Log out

← **Item Confirmation**

Item Name: Item0023

Size cm^3: **40.4 * 52.3 *40.0**

Direction: **Face up**

Note: **Fragile**

Confirm and Close | Confirm and Add Next

Add Item Popup

User Status: Manager logged in
Form Description:
- Item Name: Automatically assigned, cannot be modified; Item Size (Required): Manual input
- Item Direction (Required): Selected from dropdown (pre-set by frontend, not customizable)
- Item Note (Optional): User input, limited to a maximum (eg. xx words)

Interactions:
- Appears after clicking Add Item on the control panel, closes when Close is clicked
- The default state shows empty inputs, the Continue button is grayed out and disabled
- Continue button becomes active and clickable when all required fields are completed
- After clicking the Continue button, show the Item Confirm popup

---

Add Item -> Confirm Popup

User Status: Manager logged in
Display info of the current added item (display length, width and height as L*W*H)

Interactions:
- Click the back button on the top left of the popup, back to the previous popup (Add Item), user can edit and update the paras disappear
- Click Confirm and Close button, current item will insert in to the end of the item list, and the popup
- Click Confirm and Add Next button, current item will insert in to the end of the item list, and show the Add item popup, user can continue add another item

Manager Console Page - Popups

	Name	Size	Direction	Note		
●	Item0001	10*200*300	face up	fragile	✏	✕
●	Item0001	10*200*300	face up	fragile	✏	✕
●	Item0001	10*200*300	face up	fragile	✏	✕
●	Item0001	10*200*300	face up	fragile testing testing testin...	✏	✕
●	Item0001	100*2000*3000	face up	fragile	✏	✕
●	Item0001	100*2000*3000	face up	fragile	✏	✕
○	Item0001	100*2000*3000	face up	fragile	✏	✕
○	Item0001	100*2000*3000	face up	fragile	✏	✕
○	Item0001	100*2000*3000	face up	fragile	✏	✕
○	Item0001	100*2000*3000	face up	fragile	✏	✕

⊕ Add Item

👷 Assign Task

📋 Task History

👤 Jack

Log out

Close   Continue

Assign Task

Task Name   Task0023

Choose A Worker *   Worker02 ▼

Setup the Container

Length* (m) 3.2   Width* (m) 4.7

Height* (m) 4.2

Close   Assign

Assign Task

User Status: Manager logged in
Interactions:
- Appears select button of each item after clicking Assign Task on the control panel
- After selecting a certain item, the item appears selected state (coloured)

Item list:
- The default state, all items are unselected, Continue button is inactive
- When items are selected, Continue becomes clickable.
- Click Continue button, the Assign Task popup appears

Assign Task Popup

User Status: Manager logged in
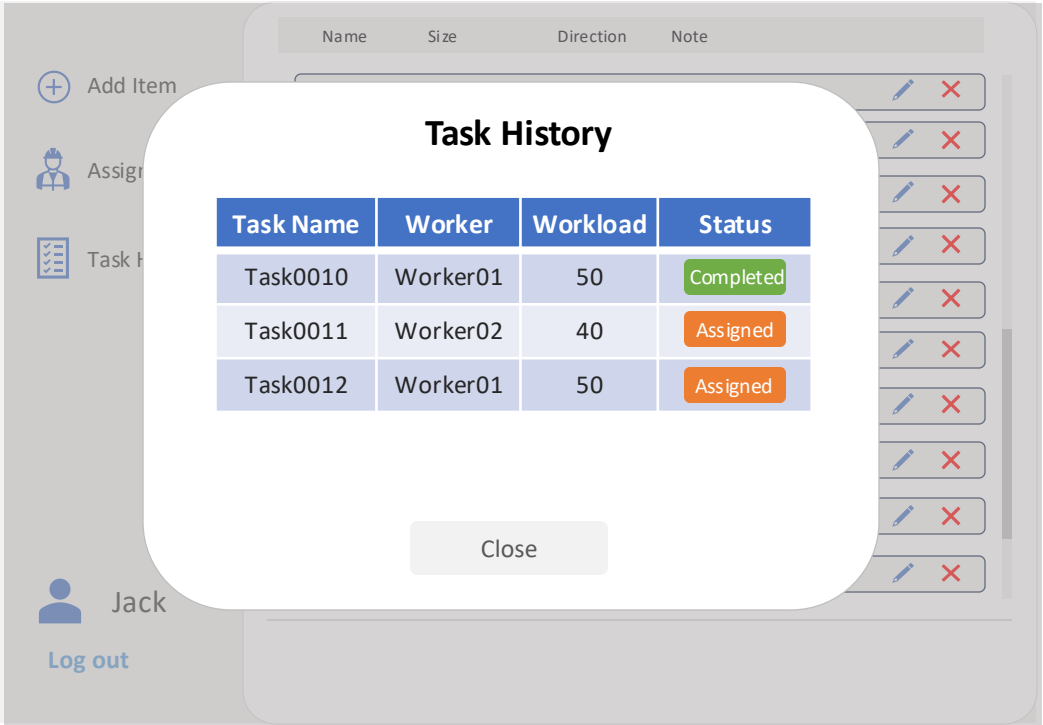**Form Description:**
- Task Name: Automatically assigned, cannot be modified
- Choose a Worker (Required): Selected from dropdown (data comes from backend worker list)
- Container Size (Required): Manual input, displays warehouse dimensions of previous settings

Interactions:
- The default state shows empty inputs, the Assign button is grayed out and disabled
- Assign button becomes active and clickable when all required fields are completed
- After clicking Assign button, the popup closes and all assigned items are removed from the item list indicating the task setup is complete

Manager Console Page - Popups

Task History

Task Name	Worker	Workload	Status
Task0010	Worker01	50	Completed
Task0011	Worker02	40	Assigned
Task0012	Worker01	50	Assigned

Close

Add Item
Assign Task
Task History

Jack
Log out

Name	Size	Direction	Note
Item0001	10*200*300	face up	fragile
Item0001	10*200*300	face up	fragile
Item0001	100*2000*3000	face up	fragile

Log Out Confirmation

Are you sure you want to log out?
Logging out will clear all unassigned items.
Please review before proceeding.

Close   Log Out

Add Item
Assign Task
Task History

Jack
Log out

Task History Popup

User Status: Manager logged in
Interactions:
- Appears select button of each item after clicking Assign Task on the control panel
- After selecting a certain item, the item appears selected state (coloured)

Item list:
- The default state, all items are unselected, Continue button is inactive
- When items are selected, Continue becomes clickable.
- Click Continue button, the Assign Task popup appears
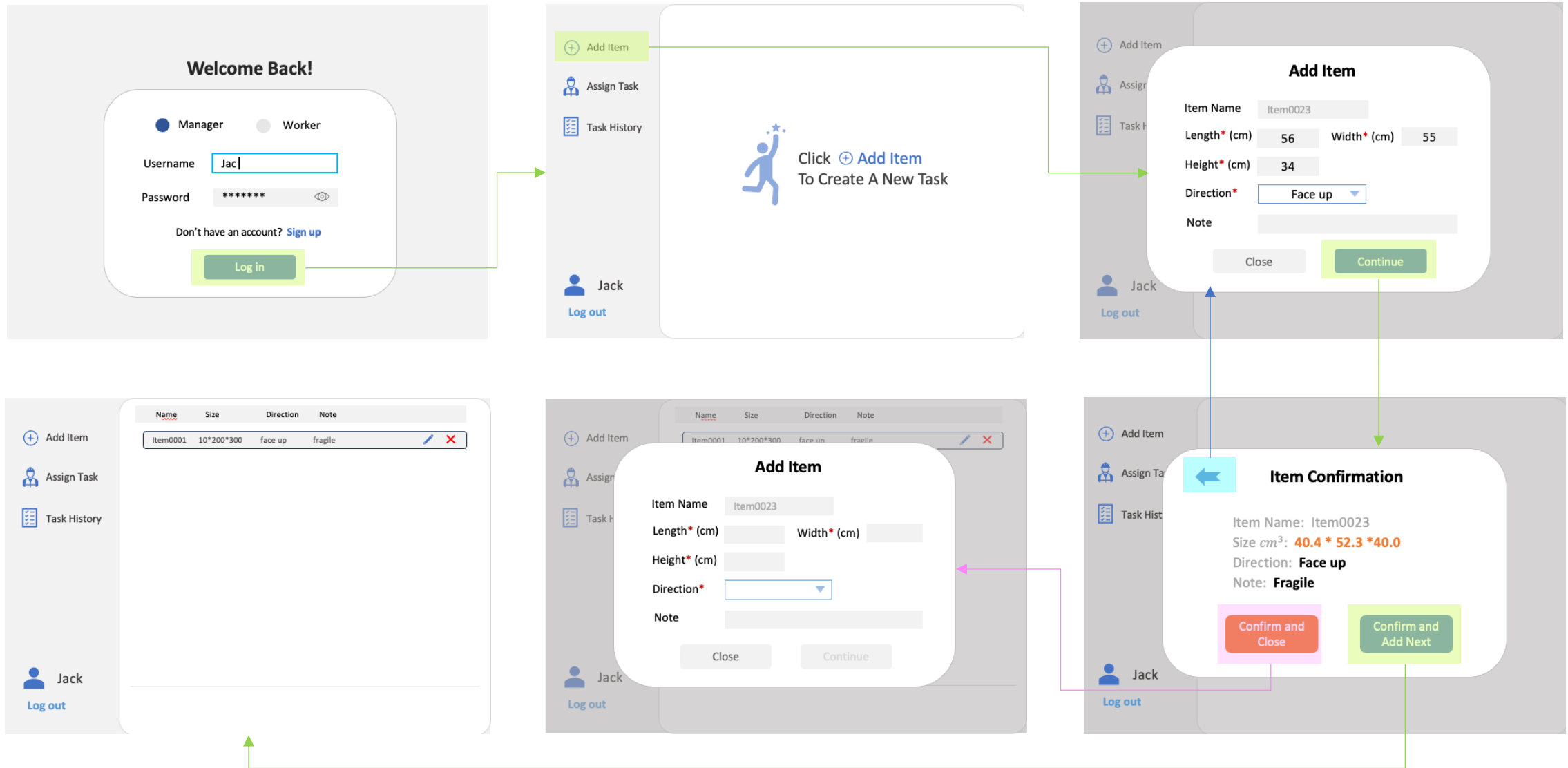

Logout Confirmation Popup
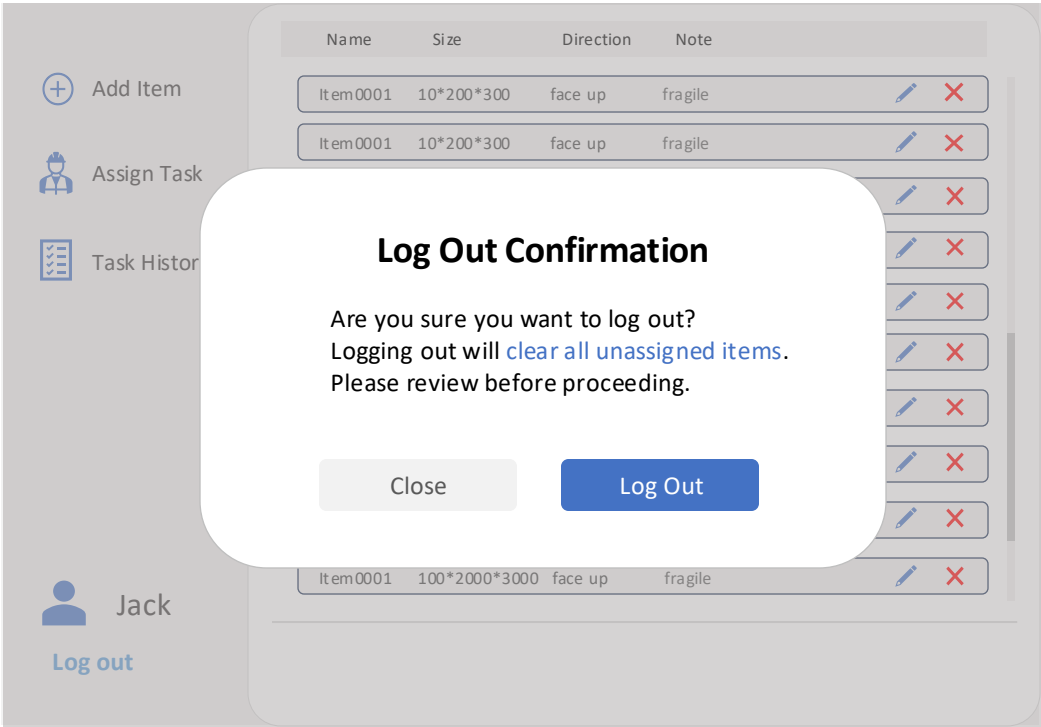
User Status: Manager logged in
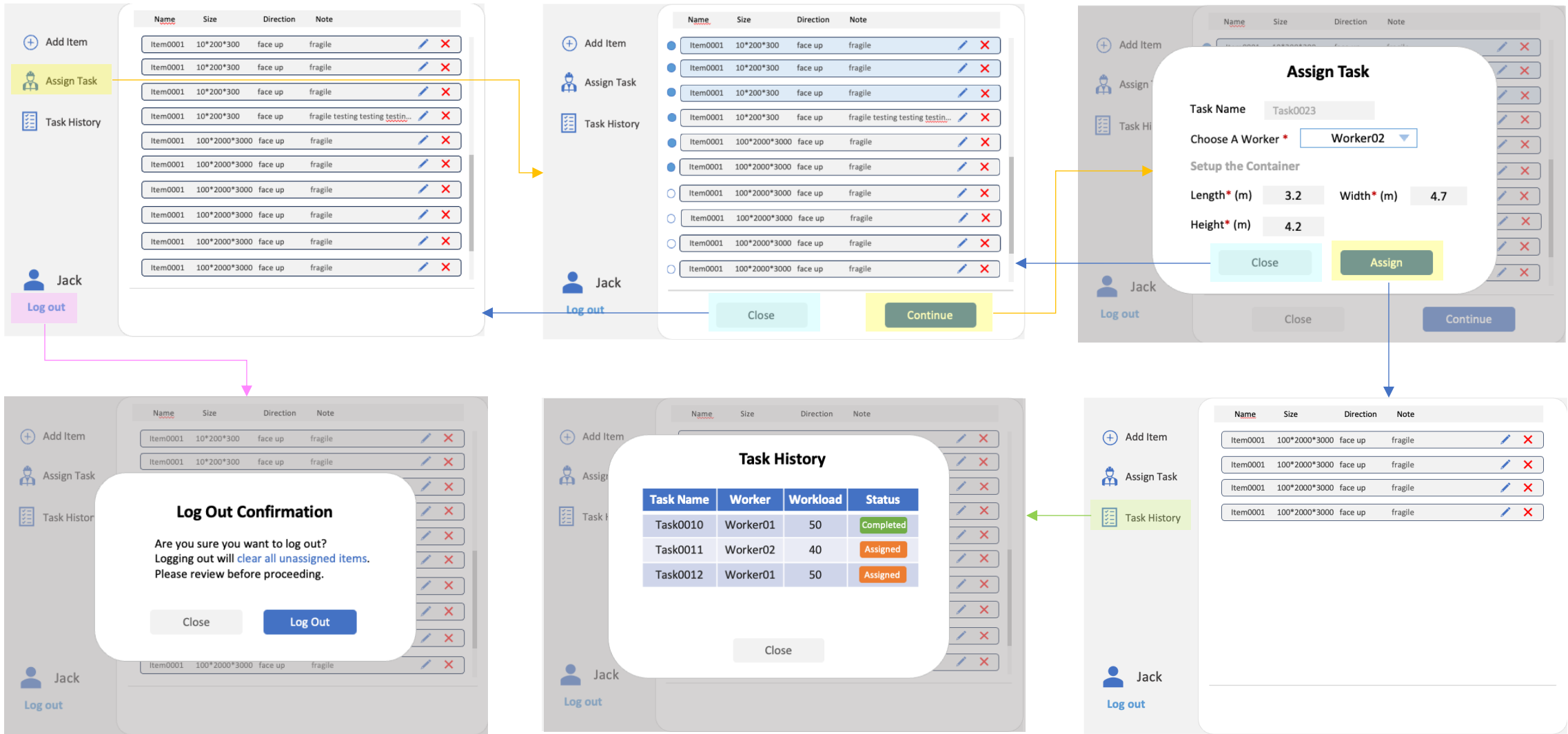Shows prompt message
Interactions:
- After clicking Log out, exits the Manager account and return to the homepage (login page); currently entered items (unassigned) are automatically cleared
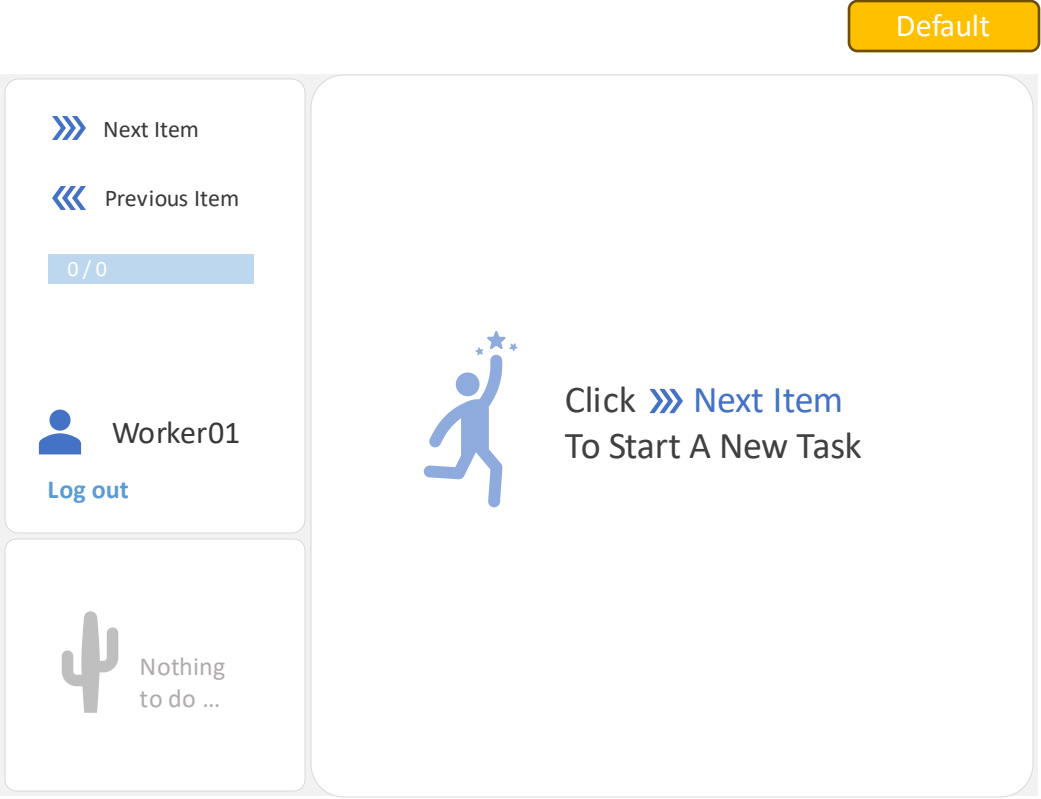- After clicking Close button, the popup is closed

Manager Console Page – Interactions Diagram

Manager Console Page – Interactions Diagram

Worker Console Page

Default State (left panel)

»» Next Item

«« Previous Item

0 / 0

Worker01

Log out

Click »» Next Item
To Start A New Task

Nothing to do ...

Active State (right panel)

»» Next Item

«« Previous Item

67 / 100

Worker01

Log out

Face up Fragile

Item Parameters

Size (cm): 30*30*30
Face up
Fragile

3D View

Default State of Worker Page

User Status: Worker logged in
Three sections: operation panel on the upper left, current placement item info on the lower left, and placement view on the right.
When the worker logged, check if the worker has assigned tasks:
- if has at least one task, right panel shows click next to start task and the progress bar displays 0/0
- If has no task, right panel shows you don't have tasks, and the progress bar displays 0/0
Interactions:
- Click Next: displays current item info, right view shows default is 2D, click button to switch to 3D
- Click Previous: displays previous item info. If no previous item exists, will toast prompt user
- Click Log out: displays logout confirmation popup, after confirming returns to the home page
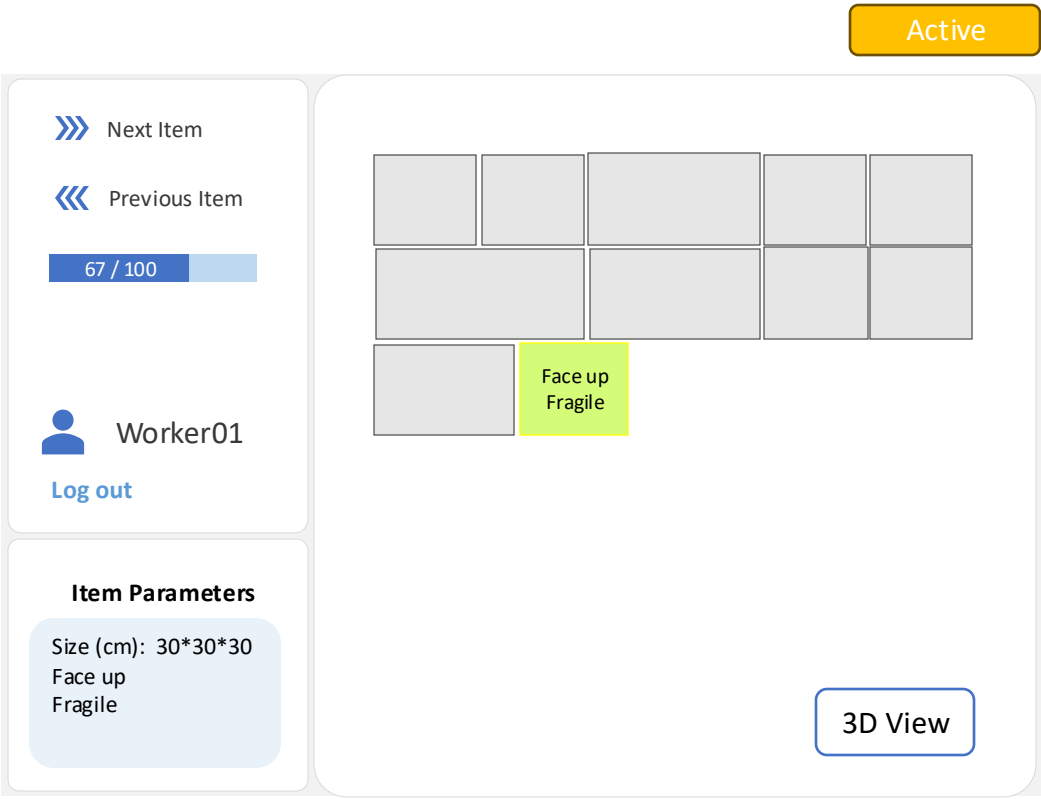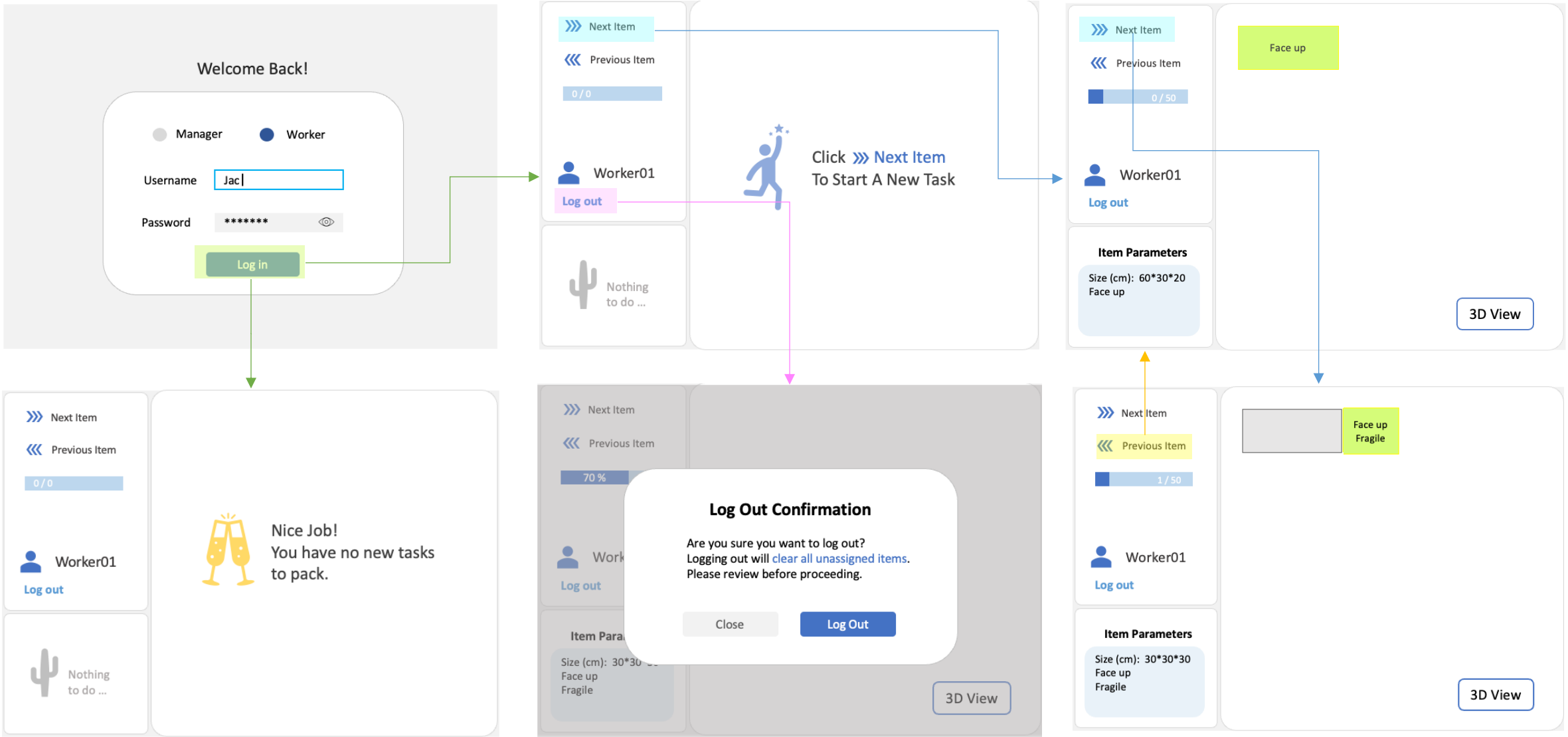

Active State of Worker Page

User Status: Worker logged in
The progress bar changes according to the completion status of the current task; The display section highlights the current item (with item info shown) and greyed all previous item

If all tasks are completed and the worker clicks Next:
- item information returns to the default state
- toast prompts that the current task is completed
- progress bar resets to 0/0
- check if the worker has assigned tasks:
    - If so, the right panel shows click to start a new task
    - If not, the right panel shows you don't have tasks

Worker Console Page – Interactions Diagram

Welcome Back!

Manager ○   Worker ●

Username | Jac|

Password | ******* | 👁

Log in

Next Item
Previous Item
0 / 0

Worker01
Log out

Nothing to do …

Click ⟫ Next Item
To Start A New Task

Next Item
Previous Item
0 / 50

Worker01
Log out

Item Parameters
Size (cm): 60*30*20
Face up

Face up

3D View

Next Item
Previous Item
0 / 0

Worker01
Log out

Nothing to do …

Nice Job!
You have no new tasks to pack.

Next Item
Previous Item
70 %

Work…
Log out

Item Para…
Size (cm): 30*30…
Face up
Fragile

Log Out Confirmation
Are you sure you want to log out?
Logging out will clear all unassigned items.
Please review before proceeding.

Close   Log Out

3D View

Next Item
Previous Item
1 / 50

Worker01
Log out

Item Parameters
Size (cm): 30*30*30
Face up
Fragile

Face up
Fragile

3D View

MCI Project LS1 - Warehouse Packing

- Product Demo and Interaction Diagram V1

By: Ruxin Ma

Home Page

Welcome Back!

● Manager   ○ Worker

Username [ ]

Password [ ]

[Log in]

Welcome Back!

● Manager   ○ Worker

Username [Jac|]

Password [******* 👁]

[Log in]

Default Login Page (Home Page)

User Status: Not logged in
- Login button is initially grayed out and not clickable
- Form fields are in inactive state
- "Manager" option is selected by default, user can click to switch to "Worker" option

Activated Login Page

User Status: Not logged in
- Login button becomes clickable only when both username and password fields have input
- Password field is hidden by default, with a "Show/Hide" toggle button provided
- Input is truncated when it exceeds the field width, preventing further input

Others:
The definition of Username and Password requirements (length/characters)

Manager Console Page

⊕ Add Item

👷 AI Placement

⚙ Settings

Click ⊕ Add Item
To Create A New Task

👤 Jack

Log out

Name	Size	Direction	Note		
Item0001	10*200*300	face up	fragile	✎	✕
Item0001	10*200*300	face up	fragile	✎	✕
Item0001	10*200*300	face up	fragile	✎	✕
Item0001	10*200*300	face up	fragile testing testing testin...	✎	✕
Item0001	100*2000*3000	face up	fragile	✎	✕
Item0001	10*200*300	face up	fragile	✎	✕
Item0001	10*200*300	face up	fragile	✎	✕
Item0001	10*200*300	face up	fragile	✎	✕
Item0001	10*200*300	face up	fragile	✎	✕
Item0001	10*200*300	face up	fragile	✎	✕
Item0001	10*200*300	face up	fragile	✎	✕
Item0001	10*200*300	face up	fragile	✎	✕

⊕ Add Item

👷 AI Placement

⚙ Settings

👤 Jack

Log out

Default State of Manager Page

User Status: Manager logged in
The left sidebar is console area, the right displays list of added items (empty by default).
The right side is empty in the following cases:
• Default state after manager login
• After a manager assigns a task, the list is cleared and returns to the default state
Interactions:
• Click buttons on the left sidebar, triggers operation popups on the current page
• Click "Logout" displays a confirmation popup; after confirm, returns to the home page

Active State of Manager Page

User Status: Manager logged in
• When a manager adds an item, a new item is added to the list with its detailed info displayed
• Text that exceeds the form width is truncated with ellipsis
• When added items exceed the container, adjustment controls appear to support vertical scrolling
• Backend/frontend needs to limit the max number of items a user can add per task (e.g., 50 items)
Interactions:
• Click edit button brings up the "add item" popup with the item's current parameters pre-filled
• Click delete button displays a confirmation popup; click confirm removes the item from the list

Manager Console Page - Popups

Add Item

| Item Name | Item0023 |

Length* (cm) [   ]   Width* (cm) [   ]

Height* (cm) [   ]

Direction* [▼]

Note [   ]

Close   Add

AI Placement

Task Name   Task0023

Choose A Worker *   [Worker02   ▼]

Setup the Container

Length* (m)   3.2   Width* (m)   4.7

Height* (m)   4.2

Close   Assign

Note: If the manager has already setup the container para, display the data

Add Item

AI Pl

Sett

Jack

Log out

Add Item

AI Pl

Sett

Jack

Log out

Add Item Popup

User Status: Manager logged in
Form Description:
- Item Name: Automatically assigned, cannot be modified; Item Size (Required): Manual input
- Item Direction (Required): Selected from dropdown (pre-set by frontend, not customizable)
- Item Note (Optional): User input, limited to a maximum (eg. xx words)

Interactions:
- Appears after clicking Add Item on the control panel, closes when Close is clicked
- The default state shows empty inputs, Add button is grayed out and disabled
- Add button becomes active and clickable when all required fields are completed
- After clicking Add button, a new item is added to the item list. **Popup remains open and resets to initial state** (allowing user to continue adding items)

AI Placement Popup

User Status: Manager logged in
Form Description:
- Task Name: Automatically assigned, cannot be modified
- Choose a Worker (Required): Selected from dropdown (data comes from backend worker list)
- Container Size (Required): Manual input, displays warehouse dimensions if previously setup

Interactions:
- Appears after clicking AI Placement on the control panel, closes when Close is clicked
- The default state shows empty inputs, Assign button is grayed out and disabled
- Assign button becomes active and clickable when all required fields are completed
- After clicking Assign button, the popup closes and the item list on the right is cleared, indicating the task setup is complete

Manager Console Page - Popups

Left panel

- ⊕ Add Item
- 👷 AI Pl...
- ⚙ Sett...

Settings

Setup the Container

Length* (m) [   ]   Width* (m) [   ]

Height* (m) [   ]

[Close]   [Confirm]

👤 Jack

Log out

Right panel

- ⊕ Add Item
- 👷 AI Placeme...
- ⚙ Settings

Log Out Confirmation

Are you sure you want to log out?
Logging out will clear all unassigned items.
Please review before proceeding.

[Close]   [Log Out]

👤 Jack

Log out

Settings Popup

User Status: Manager logged in
Form Description:
- Container Size (Required): Manual input, displays warehouse dimensions if previously setup

Interactions:
- Appears after clicking Settings on the control panel, closes when Close is clicked
- The default state shows empty inputs, Confirm button is grayed out and disabled
- Confirm button becomes active and clickable when all required fields are completed
- After clicking Confirm button, the popup closes
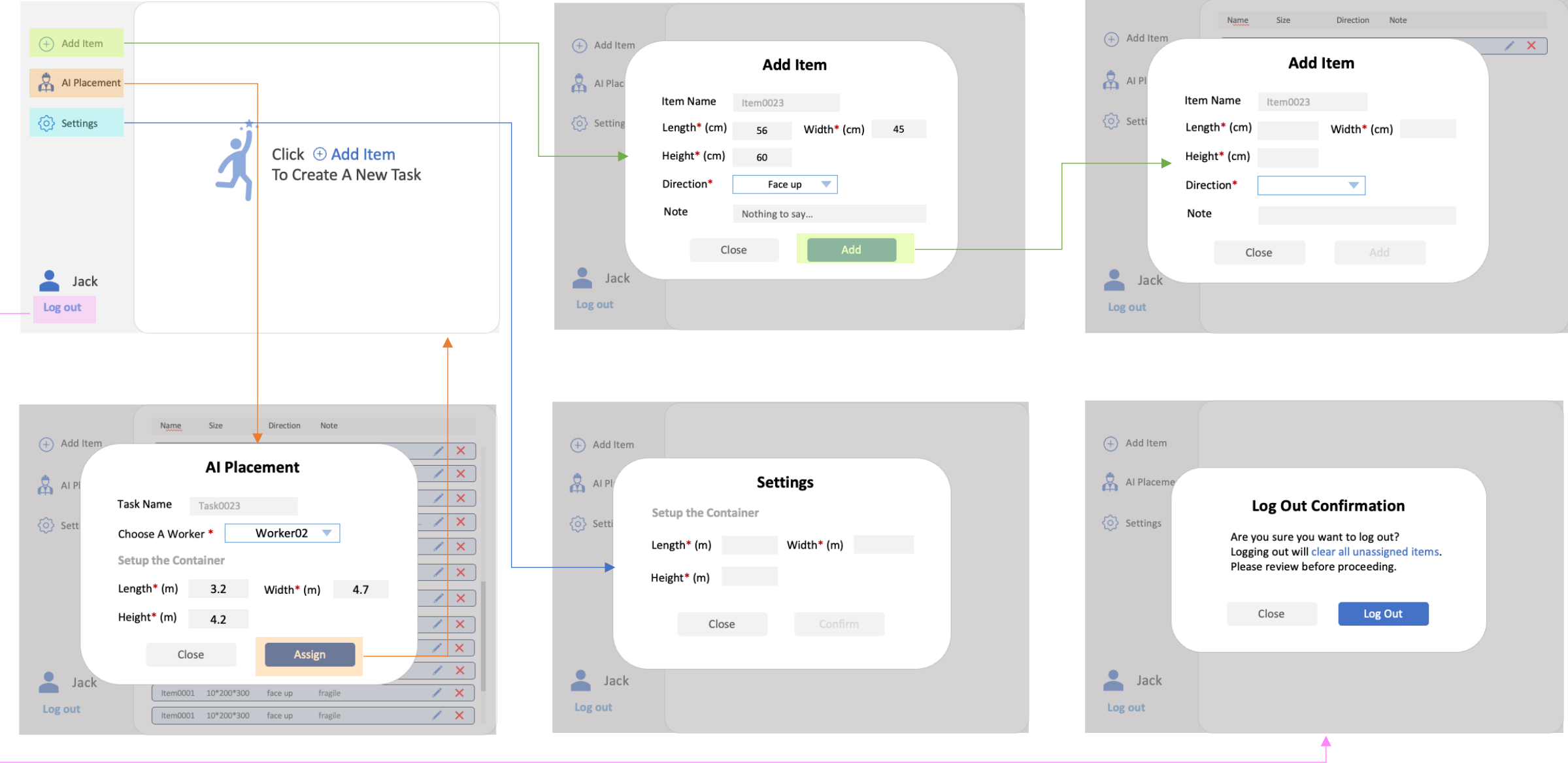
Logout Confirmation Popup

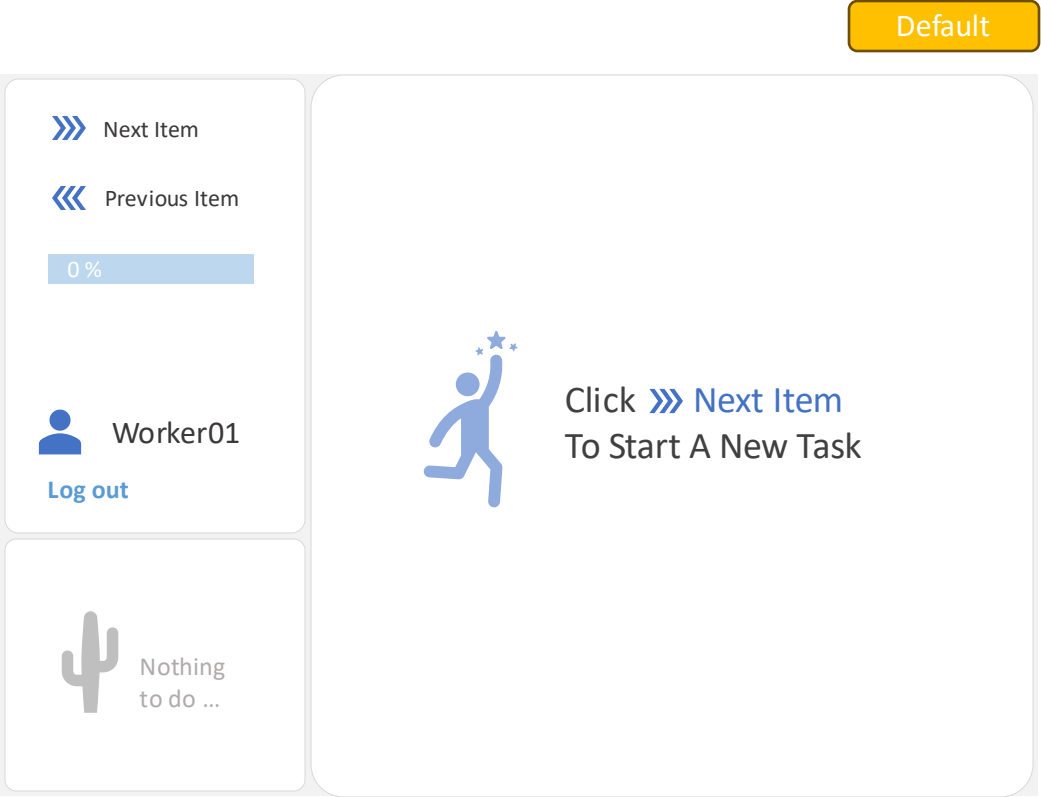**User Status**: Manager logged in
Shows prompt message
Interactions:
- After clicking Log out, exits the Manager account and return to the homepage (login page); currently entered items (unassigned) are automatically cleared
- After clicking Close button, the popup is closed

Manager Console Page – Interactions Diagram

Worker Console Page

Default State

»» Next Item

««« Previous Item

0 %

👤 Worker01

Log out

🌵 Nothing to do …

Click »» Next Item
To Start A New Task

Active State

»» Next Item

««« Previous Item

70 %

👤 Worker01

Log out

Item Parameters

Size (cm): 30*30*30
Face up
Fragile

3D View

Default State of Worker Page

User Status: Worker logged in
Three sections: operation panel on the upper left, current placement item info on the lower left, and placement view on the right. After user login, item info and view are empty, progress bar displays 0%
Interactions:
- Click Next Item: displays current item information, right view shows placement layer, default is 2D, click button to switch to 3D
- Click Previous Item: displays previous item information, if no previous item exists, no response upon clicking, toast prompts user that there is no previous item
- Click Log out: displays logout confirmation popup, after confirming returns to the home page
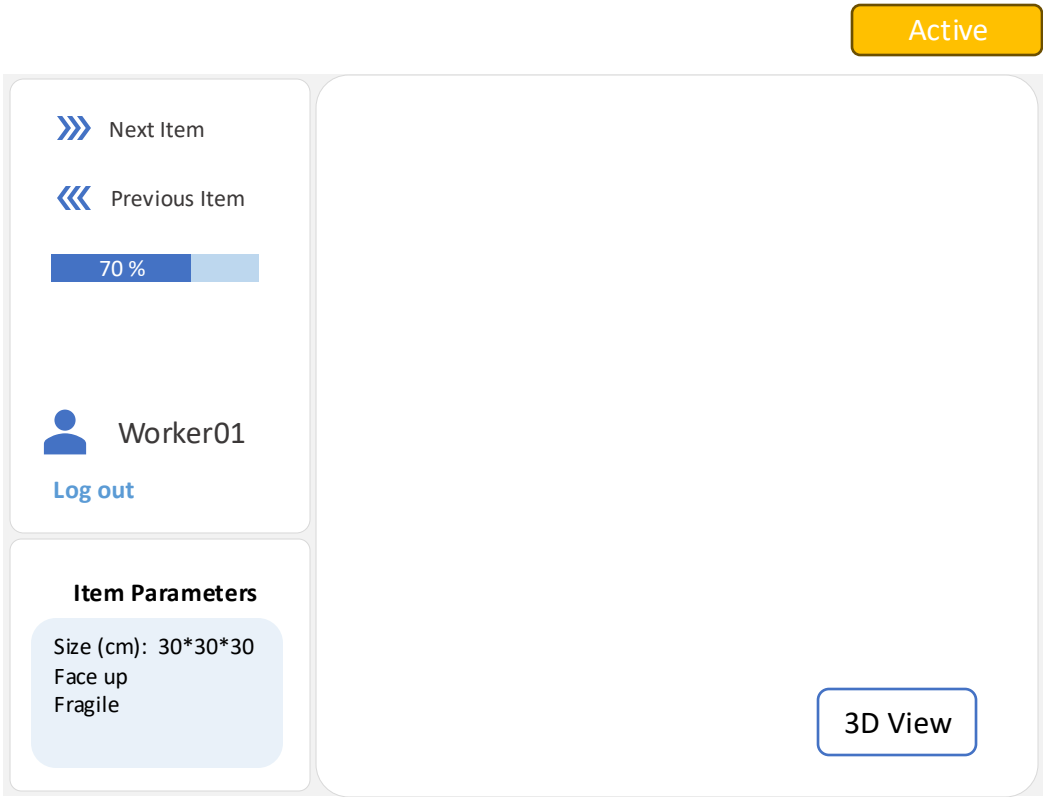
Active State of Worker Page

User Status: Manager logged in
The progress bar changes according to the completion status of the current task

If all tasks are completed and user clicks Next:
- item information returns to the default state
- toast prompts that task is completed
- progress bar resets to 0%
- The right placement view returns to the default state
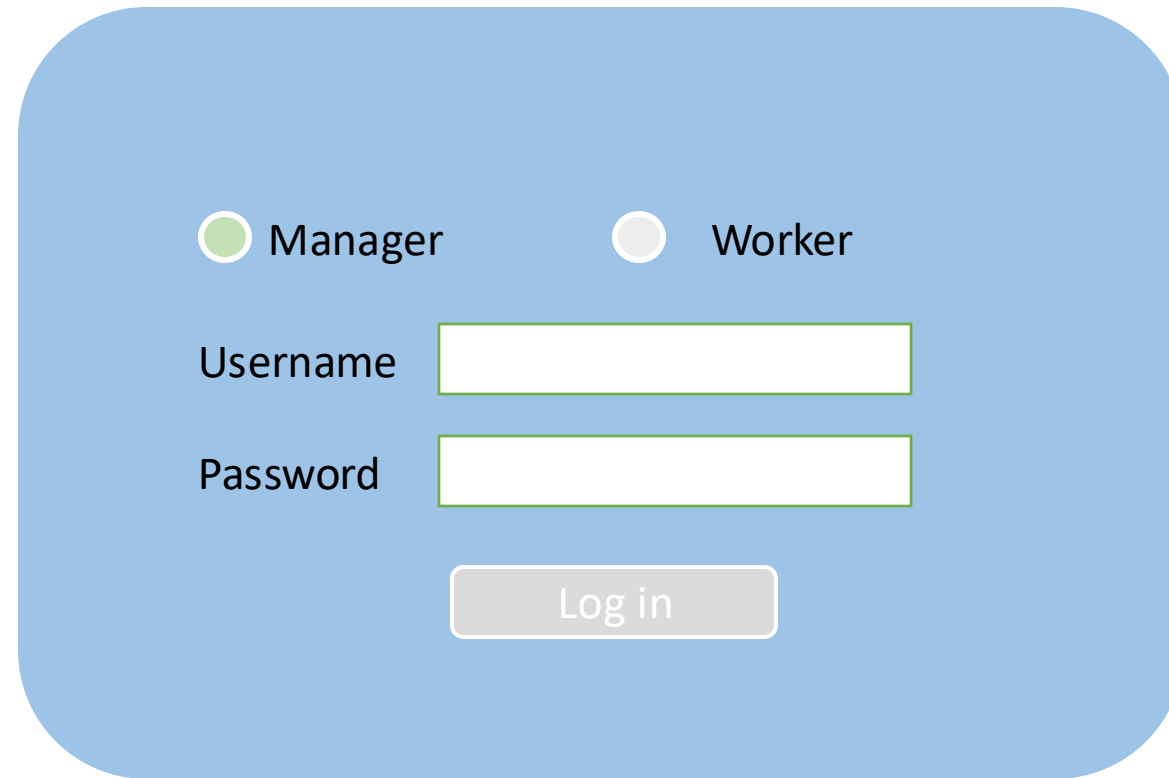
Worker Console Page – Interactions Diagram
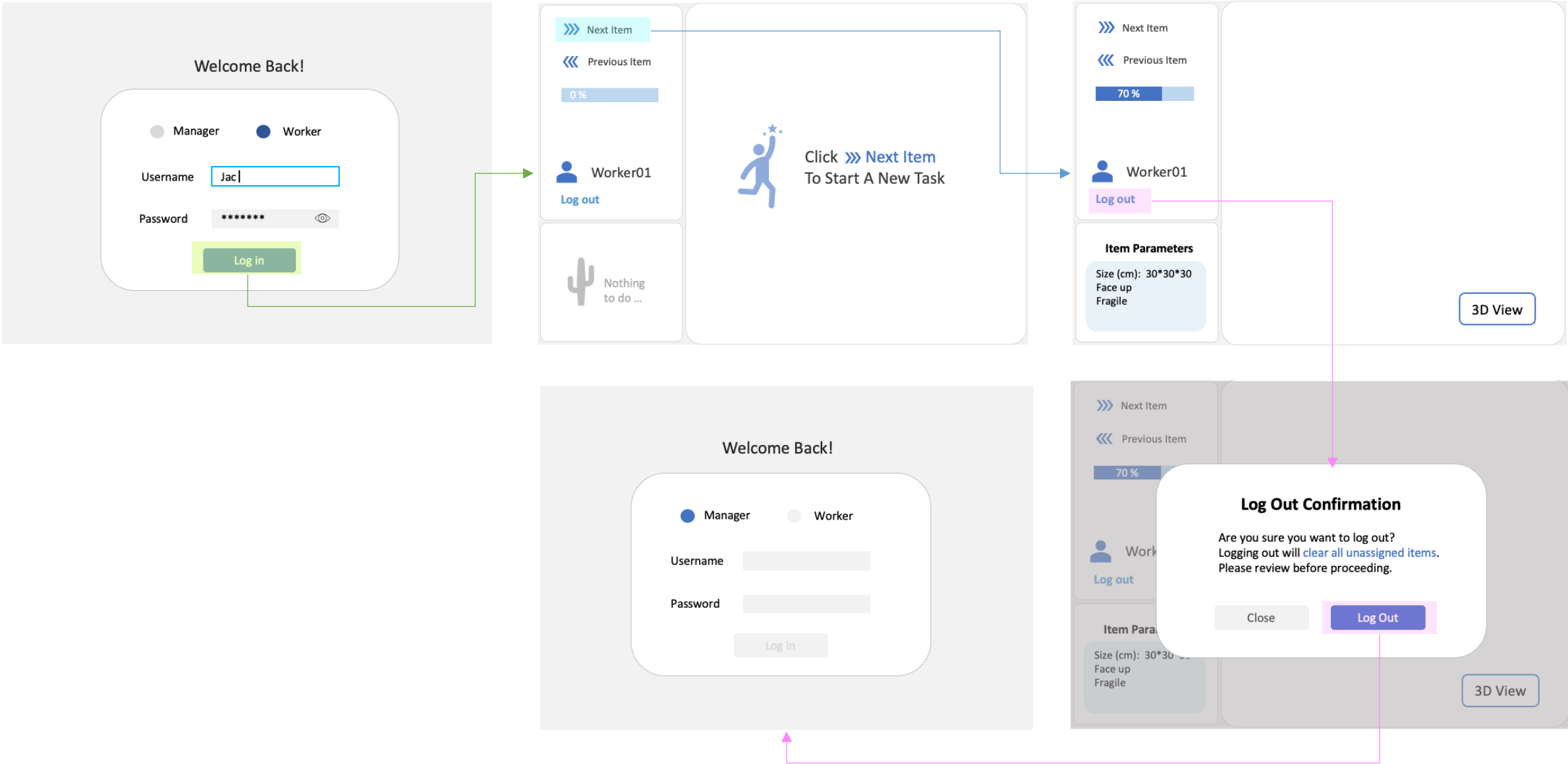
Initial demo

- Only for dividing requirements

Page 1
home page

Main feature:
- **Log in**
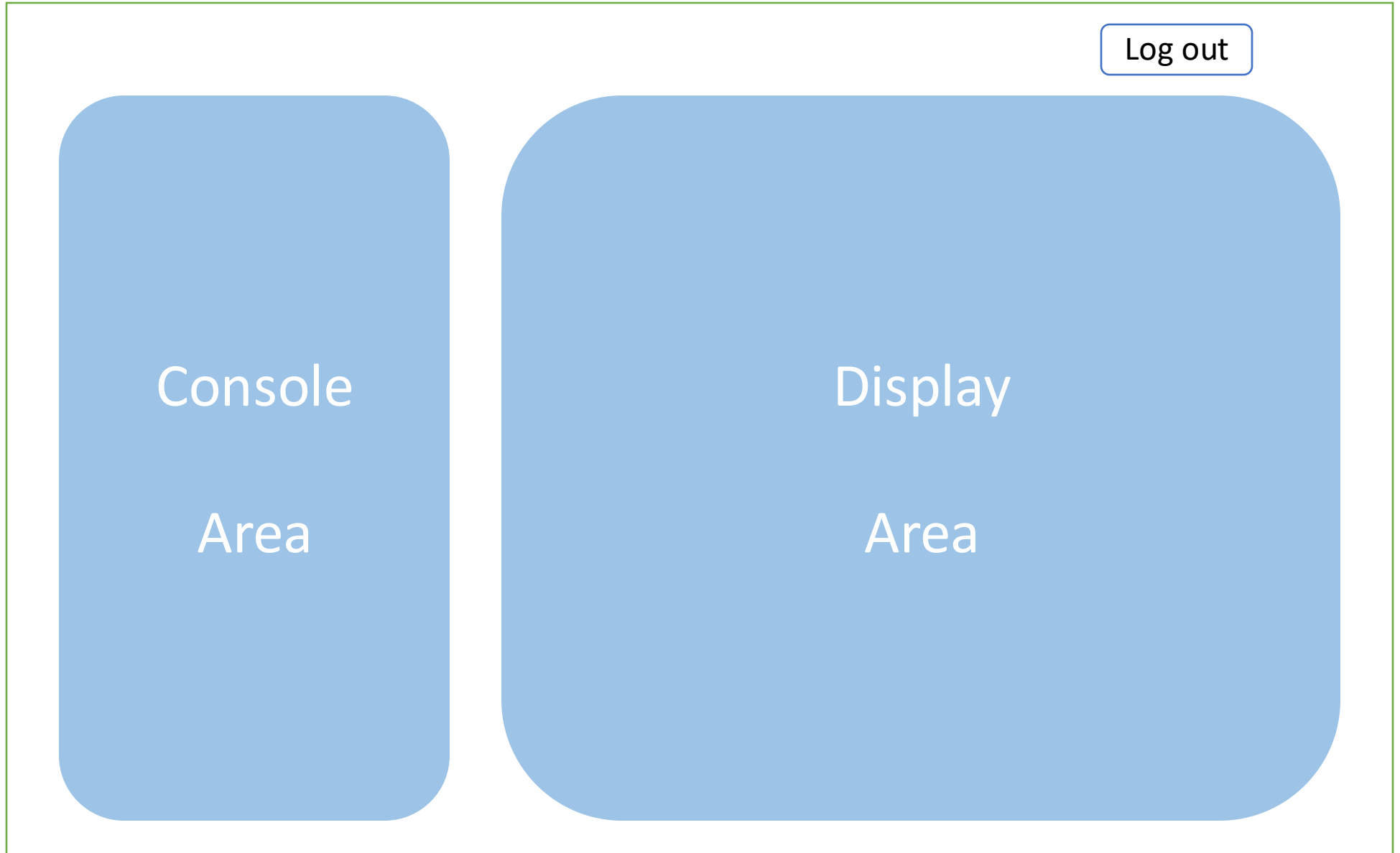
Manager   Worker

Username

Password

Log in

Page 2
Manger Page

Main feature:

- Console: add item, assign task, system setting

- Display: show the selected items, manage items (eg. delete, edit)

- Log out

Log out

Console

Area

Display

Area

Page 2
Manger Page

Demo example

A popup for confirm log out

Log out

Add Item

AI Placement

Settings

Name	Size	Direction	Note		
Item0001	10*200*300	face up	fragile	edit	✖
Item0001	10*200*300	face up	fragile	edit	✖
Item0001	10*200*300	face up	fragile	edit	✖
Item0001	10*200*300	face up	fragile	edit	✖

A popup for confirm deleting

Page 3
Worker Page

Main feature:

- Console: next item, previous item

- Item: show the information of current item

- Current progress

  Display: default shows the top view of current layer – 2D (click the button switch to 3D view)

- Log out

Console

Area

Item

Area

75%

Display

Area

3D View