

## **Zoo Management System**

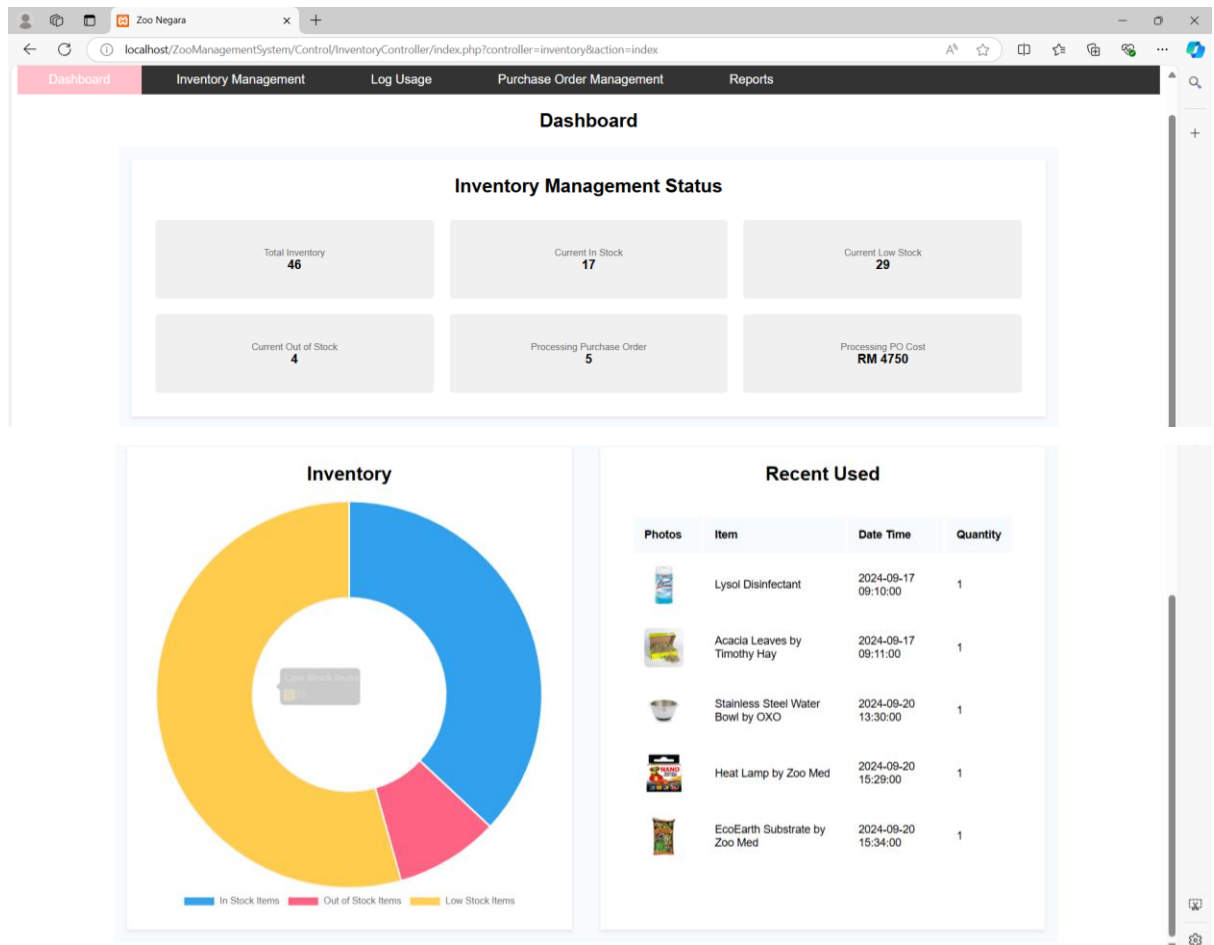
- **Module In charge:** Inventory Module
- **Technology learned:** PHP, XML, HTML, CSS, Design Pattern, HTTPS, XAMPP, MYSQL
- **GitHub Link:** <https://github.com/shuuye/ZooManagementSystem.git>

### **Dashboard Module**

The Dashboard provides an overview of the inventory status at a glance. It displays key metrics such as the total inventory count, the number of items currently in stock, those with low stock levels, and items that are completely out of stock. The Dashboard also highlights the number of purchase orders currently being processed and their total cost. Additionally, it tracks recent usage of inventory items, showing details like the item name, the date and time of usage, and the quantity used. This feature ensures that users can quickly assess the overall inventory health and manage stock levels effectively.

### **Functions Handled:**

- Viewing, adding, editing, and deleting inventory items.
- Applying filters to inventory lists.
- Managing item details (ID, name, location, reorder level, and status).



**Diagram 2.1.1 Dashboard Interface**

# Inventory Management Module

The Inventory Management section is designed for detailed management of inventory items. Users can view a comprehensive list of inventory items and apply filters to sort the list according to various criteria. This section also provides functionality for adding new items, editing existing ones, and removing items that are no longer needed. Key details for each inventory item include Inventory ID, Item Name, Item Type, Storage Location, Reorder Threshold, Quantity, and Status (such as In Stock or Low Stock or Out of Stock). This ensures that inventory levels are maintained accurately and efficiently.

## Functions Handled:

- Viewing, adding, editing, and deleting inventory items.
- Applying filters to inventory lists.
- Managing item details (ID, name, location, reorder level, and status).

Admin Main Panel

Event ManagementUser ManagementInventory Management PanelTicketing & Payment Management PanelAnimal Management Panel

DashboardInventory ManagementLog UsagePurchase Order ManagementReports

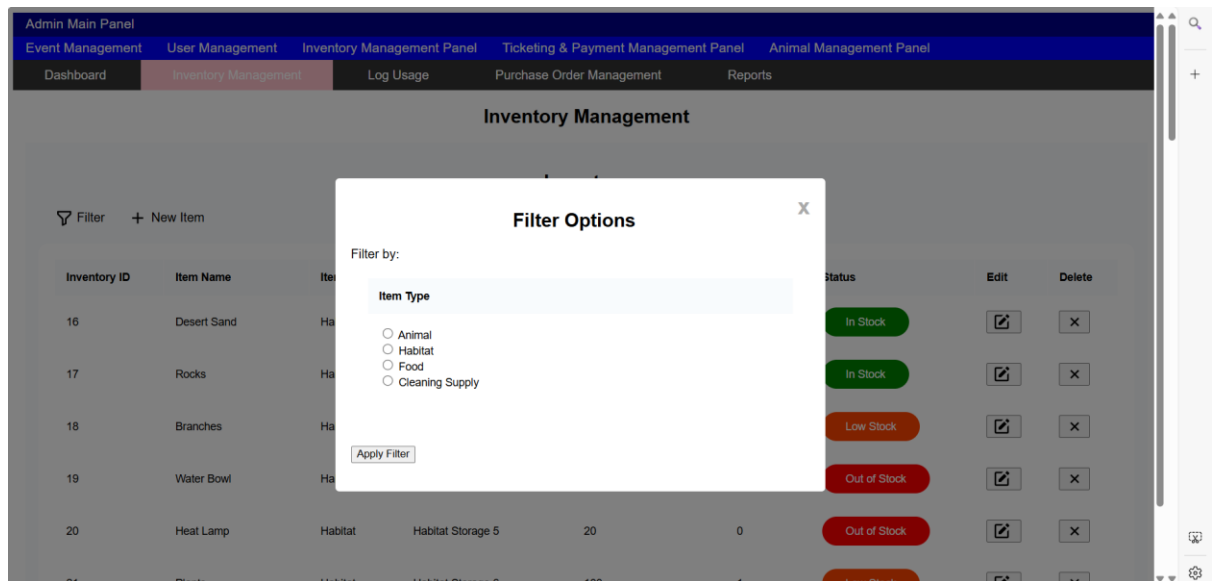
Inventory Management

Inventory

Filter + New Item

Inventory ID	Item Name	Item Type	Storage Location	Reorder Threshold	Quantity	Status	Edit	Delete
16	Desert Sand	Habitat	Habitat Storage 1	100	121	In Stock		
17	Rocks	Habitat	Habitat Storage 2	200	223	In Stock		
18	Branches	Habitat	Habitat Storage 3	150	141	Low Stock		
19	Water Bowl	Habitat	Habitat Storage 4	50	0	Out of Stock		
20	Heat Lamp	Habitat	Habitat Storage 5	20	0	Out of Stock		
21	Plants	Habitat	Habitat Storage 6	100	1	Low Stock		

Diagram 2.2.1 Inventory Tracking Interface with Edit and Delete Button



**Diagram 2.2.2 Filter Function Interface**

The screenshot shows the 'Inventory Management' section after applying a filter. The table displays a list of food items with their status (Out of Stock or Low Stock). The table has columns for Inventory ID, Item Name, Item Type, Storage Location, Reorder Threshold, Quantity, Status, Edit, and Delete.

Inventory ID	Item Name	Item Type	Storage Location	Reorder Threshold	Quantity	Status	Edit	Delete
36	Bananas	Food	Fruit Storage	200	0	Out of Stock	[Edit]	[Delete]
37	Acacia Leaves	Food	Vegetable Storage	150	1	Low Stock	[Edit]	[Delete]
38	Apples	Food	Fruit Storage	100	1	Low Stock	[Edit]	[Delete]
39	Hay	Food	Grain Storage	500	1	Low Stock	[Edit]	[Delete]
40	Carrots	Food	Vegetable Storage	120	1	Low Stock	[Edit]	[Delete]
41	Bamboo	Food	Vegetable Storage	100	1	Low Stock	[Edit]	[Delete]
42	Fish	Food	Meat Storage	50	1	Low Stock	[Edit]	[Delete]
43	Eucalyptus Leaves	Food	Vegetable Storage	30	1	Low Stock	[Edit]	[Delete]
44	Beef	Food	Meat Storage	10	1	Low Stock	[Edit]	[Delete]
45	Chicken	Food	Meat Storage	8	1	Low Stock	[Edit]	[Delete]

**Diagram 2.2.3 After applying filter**

Admin Main Panel

Event Management User Management Inventory Management Panel Ticketing & Payment Management Panel Animal Management Panel

Dashboard Inventory Management Log Usage Purchase Order Management Reports

### Add Inventory Item

#### Add New Item to Inventory

Item Name:

Item Type:

Storage Location:

Reorder Threshold (Food/Supplies):

Diagram 2.2.4 Add New Item Interface

Admin Main Panel

Event Management User Management Inventory Management Panel Ticketing & Payment Management Panel Animal Management Panel

Dashboard Inventory Management Log Usage Purchase Order Management Reports

### Inventory Management

Filter + New Item

Inventory ID	Item Name	Item Type	Storage Location	Quantity	Status	Edit	Delete
36	Bananas	Fruit	Fruit Storage	500	Out of Stock	<input type="button" value="Edit"/>	<input type="button" value="X"/>
37	Acacia Leaves	Fruit	Fruit Storage	500	Low Stock	<input type="button" value="Edit"/>	<input type="button" value="X"/>
38	Apples	Fruit	Fruit Storage	500	Low Stock	<input type="button" value="Edit"/>	<input type="button" value="X"/>
39	Hay	Food	Grain Storage	500	Low Stock	<input type="button" value="Edit"/>	<input type="button" value="X"/>
40	Carrots	Food	Vegetable Storage	120	Low Stock	<input type="button" value="Edit"/>	<input type="button" value="X"/>
41	Bamboo	Food	Vegetable Storage	100	Low Stock	<input type="button" value="Edit"/>	<input type="button" value="X"/>

x

#### Edit Inventory Item Details

Item Name:

Storage Location:

Reorder Threshold:

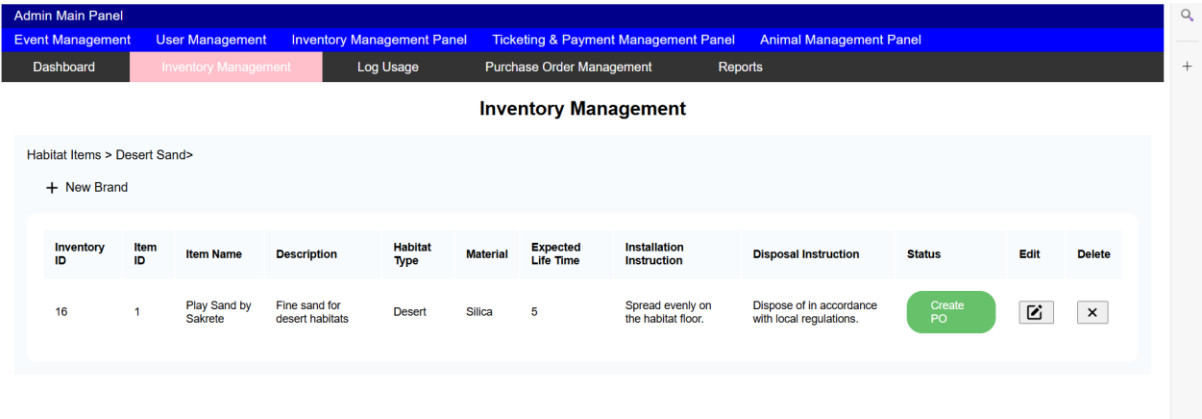
Diagram 2.2.5 Edit Item Interface

## Inventory Brand Management Module

In the Inventory Brand Management section, users can handle all aspects related to inventory brands. This includes the ability to add new brands, edit details of existing brands, and remove brands that are no longer relevant. Additionally, users can click the “Create PO” button to create a new purchase order directly from this section. This functionality streamlines the process of managing inventory brands and ensures that stock levels are replenished promptly when needed. The **detailed brand information page** offers a thorough view of each brand’s specifics.

### Functions Handled:

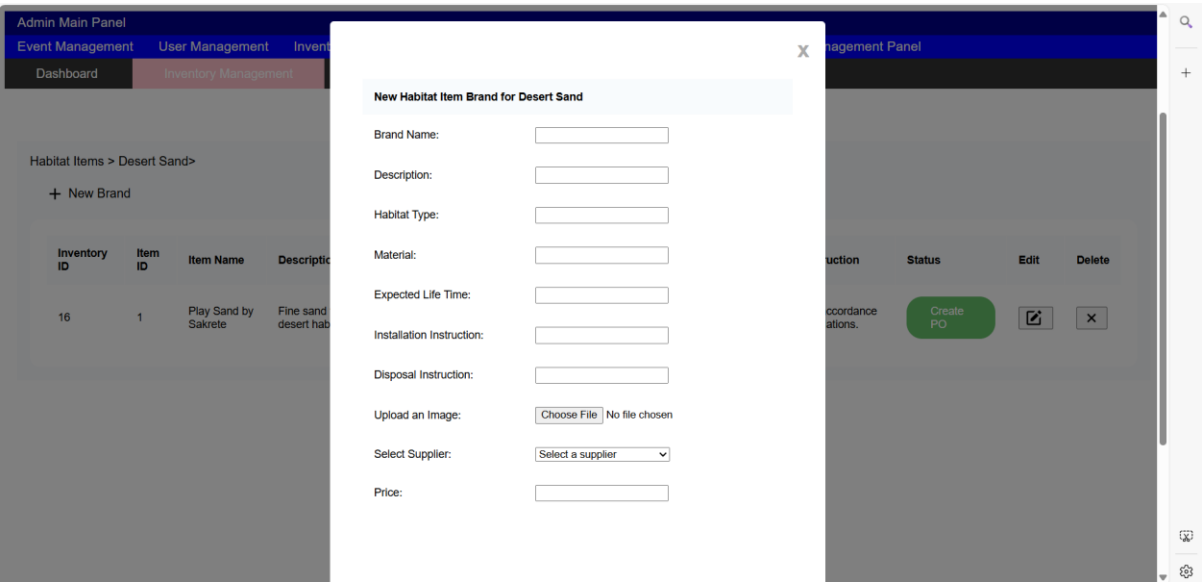
- Managing inventory brands (add, edit, delete).
- Creating purchase orders from the brand list.



The screenshot displays the 'Inventory Management' section of a web application. At the top, there is a navigation bar with tabs for 'Event Management', 'User Management', 'Inventory Management Panel' (selected), 'Ticketing & Payment Management Panel', and 'Animal Management Panel'. Below this, a sub-navigation bar includes 'Dashboard', 'Inventory Management' (selected), 'Log Usage', 'Purchase Order Management', and 'Reports'. The main content area is titled 'Inventory Management' and shows a breadcrumb 'Habitat Items > Desert Sand>'. A '+ New Brand' button is present. Below this is a table with columns: Inventory ID, Item ID, Item Name, Description, Habitat Type, Material, Expected Life Time, Installation Instruction, Disposal Instruction, Status, Edit, and Delete. The table contains one row with the following data: Inventory ID 16, Item ID 1, Item Name 'Play Sand by Sakrete', Description 'Fine sand for desert habitats', Habitat Type 'Desert', Material 'Silica', Expected Life Time 5, Installation Instruction 'Spread evenly on the habitat floor.', Disposal Instruction 'Dispose of in accordance with local regulations.', Status 'Create PO', Edit icon, and Delete icon.

Inventory ID	Item ID	Item Name	Description	Habitat Type	Material	Expected Life Time	Installation Instruction	Disposal Instruction	Status	Edit	Delete
16	1	Play Sand by Sakrete	Fine sand for desert habitats	Desert	Silica	5	Spread evenly on the habitat floor.	Dispose of in accordance with local regulations.	Create PO		

Diagram 2.3.1 Brand Tracking for Habitat Items



The screenshot shows a modal form titled 'New Habitat Item Brand for Desert Sand'. The form contains the following fields: Brand Name (text input), Description (text input), Habitat Type (text input), Material (text input), Expected Life Time (text input), Installation Instruction (text input), Disposal Instruction (text input), Upload an Image (Choose File button, No file chosen), Select Supplier (dropdown menu), and Price (text input). The form is overlaid on the 'Inventory Management' interface, which is dimmed in the background.

Brand Name:	Description:	Habitat Type:	Material:	Expected Life Time:	Installation Instruction:	Disposal Instruction:	Upload an Image:	Select Supplier:	Price:
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="button" value="Choose File"/> No file chosen	<input type="text" value="Select a supplier"/>	<input type="text"/>

Diagram 2.3.2 Add New Habitat Item Brand

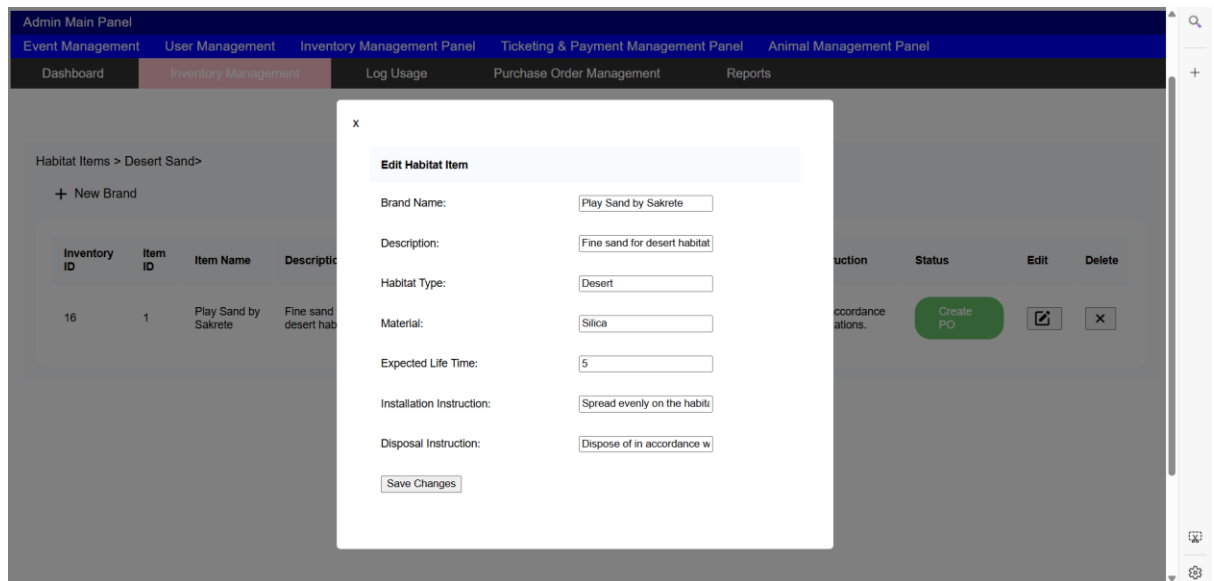


Diagram 2.3.3 Edit Habitat Item Brand Details

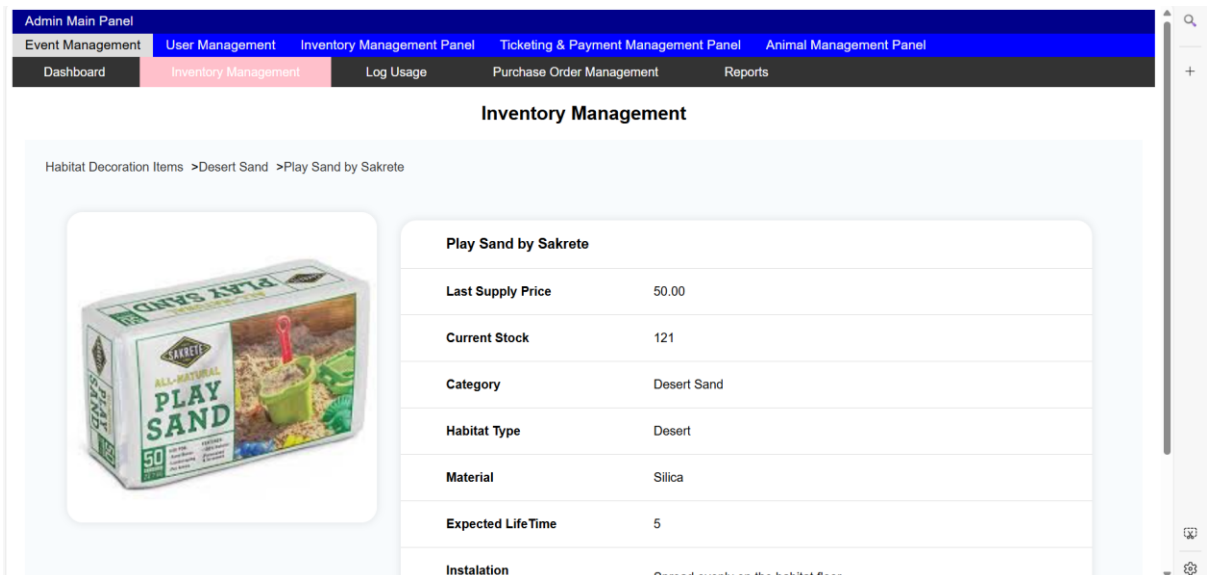


Diagram 2.3.4 View Habitat Brand Details


## Purchase Order Management Module

### Create Purchase Order function

- facilitates the generation of new purchase orders. Users can select items from the inventory, specify the quantities needed, and review the total cost of the order. The order details section includes selecting a supplier, specifying billing and shipping addresses, choosing the shipping method, and setting preferred shipping dates and times. Once a purchase order is completed, the system automatically updates the inventory quantities to reflect the new stock levels, ensuring accurate inventory records and efficient stock management.

The screenshot displays the 'Create Purchase Order' interface within the 'Inventory Management' module. The top navigation bar includes 'Admin Main Panel', 'Event Management', 'User Management', 'Inventory Management Panel', 'Ticketing & Payment Management Panel', and 'Animal Management Panel'. Below this, a secondary bar shows 'Dashboard', 'Inventory Management', 'Log Usage', 'Purchase Order Management', and 'Reports'. The main content area is titled 'Inventory Management' and 'Purchase Orders > New Purchase Order #15'. A note states: 'The purchase order has been generated based on the previous order. You can edit it if changes are required.'

**Item Details**

Photos	Name	Price	Quantity	Total
	Play Sand by Sakrete	RM 0.00	- 1 +	RM 0.00

**Order Details**

Supplier:

Billing Address:

Shipping Address:

Shipping Method:

Preferred Shipping Date:

Preferred Shipping Time:

Diagram 2.4.1 Create Purchase Order Interface



### Purchase Order Tracking Function

- Provides detailed information about the status of purchase orders. It includes essential details such as the Order Number, Supplier, Created Date, Delivery Date, Billing Address, Amount, and Status (e.g., Draft, Completed or Processing). Users can also view a breakdown of line items within each order, including Inventory ID, Item Name, Quantity, Unit Price, and Sub-Total. This functionality helps users keep track of their orders and ensures that they are aware of the current status and details of each purchase.

Admin Main Panel

Event ManagementUser ManagementInventory Management PanelTicketing & Payment Management PanelAnimal Management Panel

DashboardInventory ManagementLog UsagePurchase Order ManagementReports

Purchase Order Management

Purchase Order

Order #	Supplier	Created At	Delivery Date	Billing Address	Amount	Status
15	Food Suppliers Sdn Bhd	2024-09-20 15:50:59	2024-09-24 09:50:00	202 Jalan Makanan	50.00	Draft
14	Zoo Animals Sdn Bhd	2024-09-20 15:34:47	2024-09-23 15:34:47	101 Jalan Haiwan	1350.00	Processing
13	Zoo Animals Sdn Bhd	2024-09-20 15:29:48	2024-09-23 15:29:48	101 Jalan Haiwan	300.00	Completed
12	Food Suppliers Sdn Bhd	2024-09-20 13:30:52	2024-09-23 13:30:52	202 Jalan Makanan	2250.00	Processing

Diagram 2.4.2 Purchase Order Tracking Interface

## View Purchase Order Function

- Allow users to access and review detailed information about completed purchase orders. This includes the Purchase Order Number, Status, Addresses, Order Date, and Shipping Date. The item details section lists the items included in the order along with their prices, quantities, and totals. This feature provides a clear view of past orders and facilitates verification and record-keeping. User can also update the status of purchase order by clicking the button on the top right to either change the status from “Draft” to “Processing” or “Processing” to “Completed”.

Admin Main Panel

Event ManagementUser ManagementInventory Management PanelTicketing & Payment Management PanelAnimal Management Panel

DashboardInventory ManagementLog UsagePurchase Order ManagementReports

Purchase Order Management

Purchase Order New Purchase Order #15

StatusDraftCancel orderSend for approval

To

Company:

Address:

Phone:

Food Suppliers Sdn Bhd

202 Jalan Makanan

03-5678-9012

Ship To

Company:

Address:

Phone:

National Zoo of Malaysia

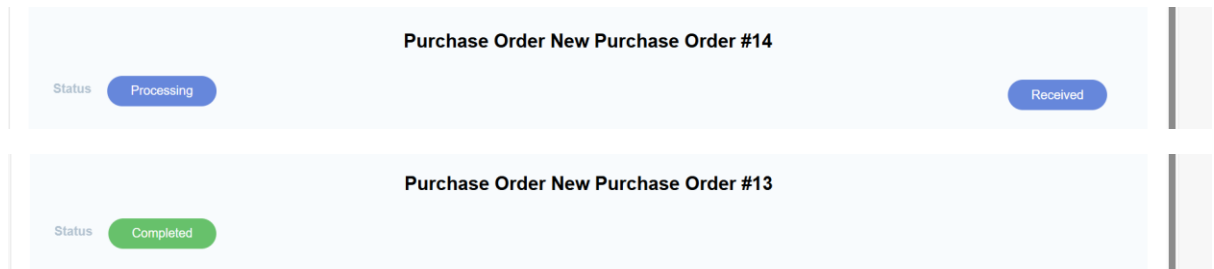
Jalan Taman Zooview, Taman Zooview,  
68000 Ampang, Selangor

03-4108 3422

Order Details

Item	Price	Quantity	Total
Play Sand by Sakrete	50.00	1	50.00
Subtotal RM 50.00			
Shipping RM 0.00			
Total RM 50.00			

### Diagram 2.4.3 View Purchase Order Interface



**Diagram 2.4.4 Different Function for different Status of Purchase Order**

## Log Usage

The Log Usage function is used to track and record the usage of inventory items. Users can enter the date and time of usage, select the inventory type and specific item used, and input the quantity used. There is also an optional field to specify the reason for the usage, allowing for detailed tracking and justification of inventory use. This feature helps in monitoring inventory consumption and understanding the reasons behind stock usage. After logging the usage, the quantity of the inventory is checked, if the inventory is out of stock, a new purchase order is generated and sent to the supplier for restocking.

The screenshot displays the 'Log Usage' interface within an administrative dashboard. The top navigation bar includes 'Admin Main Panel' and several sub-panels: 'Event Management', 'User Management', 'Inventory Management Panel' (highlighted), 'Ticketing & Payment Management Panel', and 'Animal Management Panel'. Below this, a secondary navigation bar shows 'Dashboard', 'Inventory Management', 'Log Usage' (highlighted), 'Purchase Order Management', and 'Reports'. The main content area is titled 'Log Usage' and contains a form with the following fields: 'Date and Time' (set to 20/09/2024 03:54 PM), 'Select Inventory Type' (dropdown menu), 'Select Inventory Item' (dropdown menu), 'Quantity Used' (text input field), and 'Reason for Use' (text area with a placeholder 'Optional: specify the purpose'). A green 'Submit' button is located at the bottom of the form.

Diagram 2.5.1 Log Usage Interface

This screenshot shows the 'Log Usage' interface after a successful log entry. At the top, a green notification bar states 'Inventory usage logged successfully. New available quantity: 0'. Below this, a blue notification bar indicates 'Out of stock !! A new Purchase Order is automatic generated.', followed by another blue bar stating 'The new purchase order is sent to supplier for processing.' The dashboard navigation and the 'Log Usage' form are visible below the notifications. The form fields are identical to the previous screenshot, but the 'Date and Time' field now shows 20/09/2024 03:57 PM.

Diagram 2.5.2 Case of Inventory Out of Stock

## Reports Module

The Reports section generates various reports to provide insights into inventory and purchase orders. The Inventory Summary Report gives an overview of all inventory items by type, including their status and quantities. The Cleaning Supply Brands Inventory Summary Report details cleaning supplies by brand, size, and quantity. The Habitat Decoration Item Brands Inventory Summary Report covers decoration items by brand and material, while the Food Inventory Summary Report summarizes food items by brand and quantity. The Purchase Order Details report offers in-depth information about purchase orders, including supplier information, order dates, and itemized costs. These reports assist in inventory management and help in making informed decisions based on inventory and purchase data.

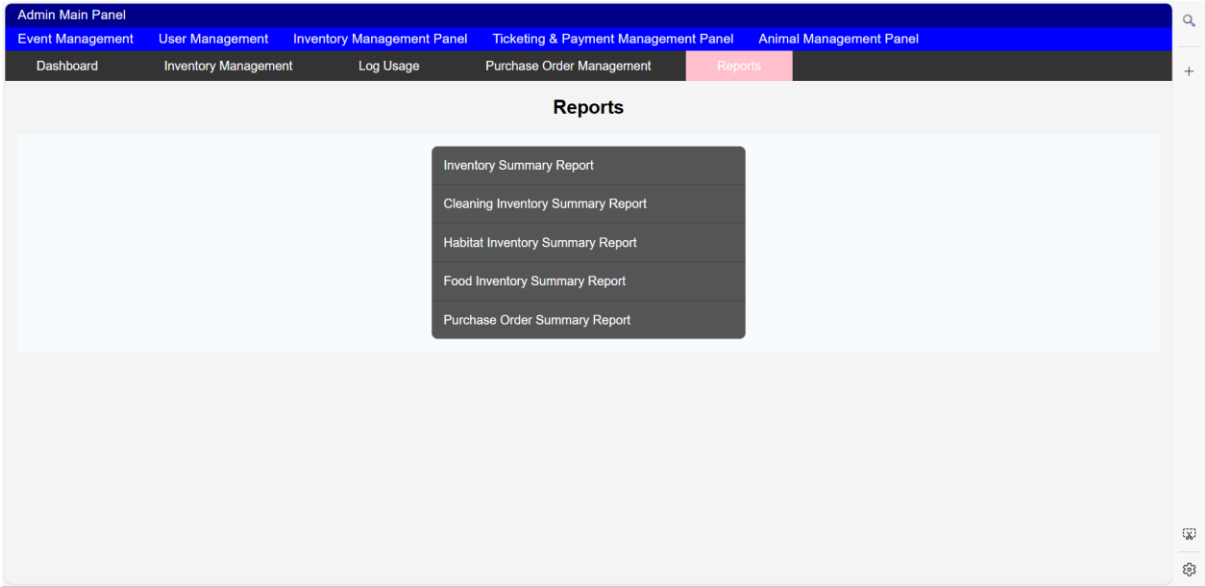
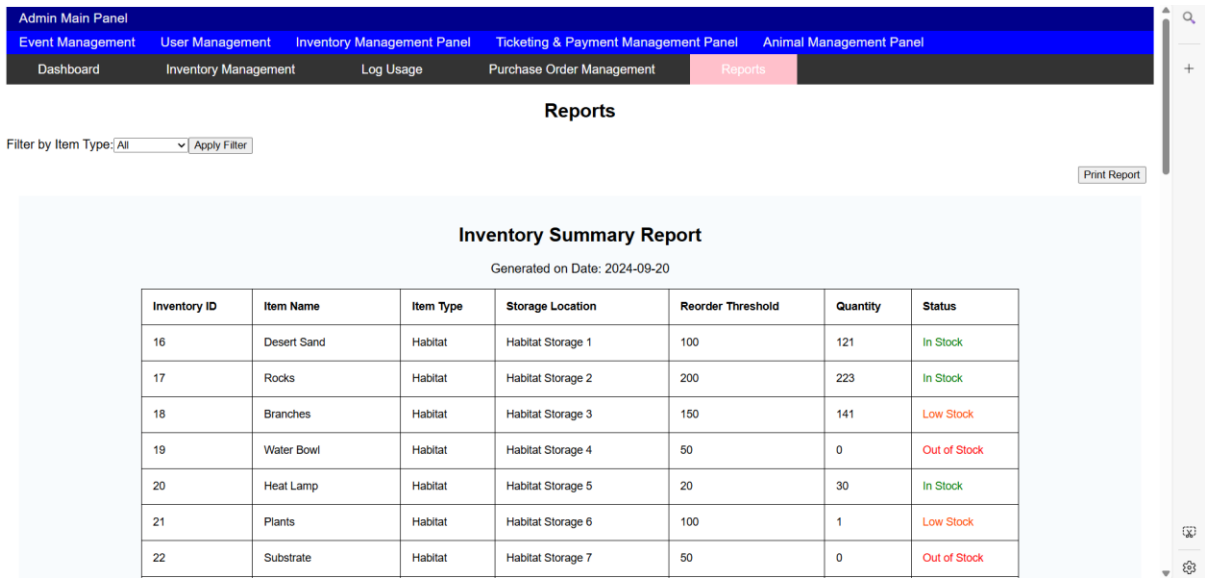


Diagram 2.6.1 Report Navigation Interface



7	Kangaroo	Animal	Enclosure 7	0	1	In Stock
8	Panda	Animal	Enclosure 8	0	1	In Stock
9	Penguin	Animal	Enclosure 9	0	1	In Stock
10	Koala	Animal	Enclosure 10	0	1	In Stock
11	Newt	Animal	Aquatic	0	1	In Stock
12	Parrot	Animal	Aviary	0	1	In Stock
13	Bear	Animal	Forest	0	1	In Stock
14	Toad	Animal	Aquatic	0	1	In Stock
15	Sparrow	Animal	Aviary	0	1	In Stock
Total					555	46

Diagram 2.6.2 Inventory Summary Report

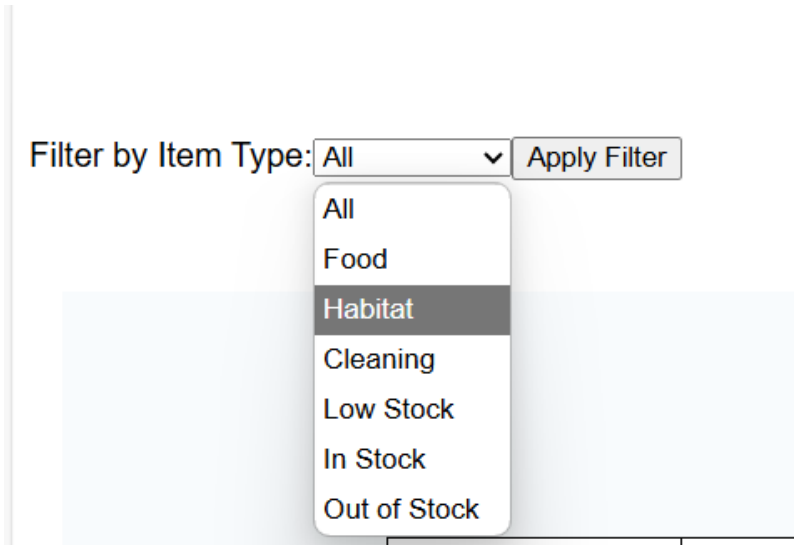


Diagram 2.6.3 Inventory Summary Report Filter Choice

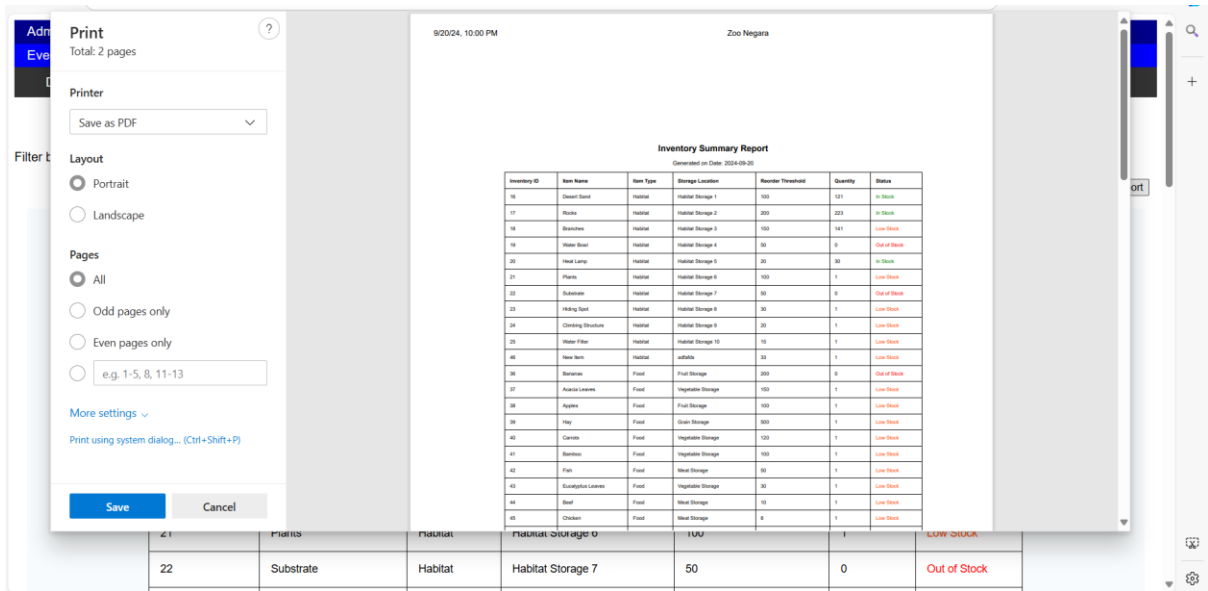


Diagram 2.6.4 Printing Function

Cleaning Supply Brands Inventory Summary Report					
Generated on Date: 2024-09-20					
Inventory ID	Item Name	ID	Brand Name	Size	Sub-Total:
26	Disinfectant	1	Lysol Disinfectant	5L	1
27	Glass Cleaner	2	Windex Glass Cleaner	1L	1
28	Floor Cleaner	3	Mr. Clean Floor Cleaner	10L	1
29	Detergent	4	Tide Detergent	2kg	1
30	Sanitizer	5	Purell Sanitizer	500ml	1
31	Bleach	6	Clorox Bleach	4L	2
		11	Top Bleach	200ML	
32	Deodorizer	7	Febreze Deodorizer	1L	1
33	Scrub Brush	8	Scotch-Brite Scrub Brush	Medium	1
34	Mop	9	O-Cedar Mop	Large	1
35	Broom	10	Rubbermaid Broom	Standard	1
Total					11

Diagram 2.6.6 Cleaning Supply Brand Inventory Summary Report

Purchase Order Details												
Generated on Date: 2024-09-20												
PO ID	Supplier ID	Order Date	Delivery Date	Billing Address	Total Amount	Status	Line Item ID	Inventory ID	Item Name	Quantity	Unit Price	Sub-Total:
1	Animal Supplies Sdn Bhd	2024-08-01 00:00:00	2024-08-07 00:00:00	No. 12, Jalan Kuning, Taman Melawati, 53100 Kuala Lumpur, Malaysia	750.00	Completed	1	33	Scotch-Brite Scrub Brush	10	50.00	500
							5	26	Lysol Disinfectant	5	50.00	250
2	Cleaning Solutions Sdn Bhd	2024-08-10 00:00:00	2024-08-15 00:00:00	No. 78, Jalan Intan, 81000 Johor Bahru, Johor, Malaysia	750.00	Completed	4	27	Tide Detergent	25	30.00	750
3	Habitat Builders Sdn Bhd	2024-08-15 00:00:00	2024-08-21 00:00:00	No. 34, Jalan Bukit, 11300 Penang, Malaysia	450.00	Processing	3	34	O-Cedar Mop	15	30.00	450
5	Habitat Builders Sdn Bhd	2024-08-15 00:00:00	2024-08-21 00:00:00	No. 78, Jalan Cendana, 11900 Bayan Lepas, Penang, Malaysia	400.00	Processing	2	30	Windex Glass Cleaner	20	20.00	400
6	Food Suppliers	2024-09-16	2024-09-27	202 Jalan	5000.00	Completed	6	16	Play Sand by	100	50.00	5000

9	Food Suppliers Sdn Bhd	2024-09-16 12:12:57	2024-09-21 10:12:00	202 Jalan Makanan	1450.00	Completed	9	16	Play Sand by Sakrete	29	50.00	1450
10	Food Suppliers Sdn Bhd	2024-09-17 09:09:46	2024-09-21 15:09:00	202 Jalan Makanan	6000.00	Completed	10	17	Decorative Rocks by Vigoro	200	30.00	6000
11	Food Suppliers Sdn Bhd	2024-09-17 09:13:37	2024-09-21 15:14:00	202 Jalan Makanan	6300.00	Completed	11	18	Natural Branches by Petco	140	45.00	6300
12	Food Suppliers Sdn Bhd	2024-09-20 13:30:52	2024-09-23 13:30:52	202 Jalan Makanan	2250.00	Processing	12	19	Stainless Steel Water Bowl by OXO	60	45.00	2700
13	Zoo Animals Sdn Bhd	2024-09-20 15:29:48	2024-09-23 15:29:48	101 Jalan Haiwan	300.00	Completed	13	20	Heat Lamp by Zoo Med	30	15.00	450
14	Zoo Animals Sdn Bhd	2024-09-20 15:34:47	2024-09-23 15:34:47	101 Jalan Haiwan	1350.00	Processing	14	22	EcoEarth Substrate by Zoo Med	60	27.00	1620
15	Food Suppliers Sdn Bhd	2024-09-20 15:50:59	2024-09-24 09:50:00	202 Jalan Makanan	50.00	Draft	15	16	Play Sand by Sakrete	1	50.00	50
16	Cleaning Solutions Sdn Bhd	2024-09-20 15:57:00	2024-09-23 15:57:00	456 Jalan Bersih	1000.00	Processing	16	26	Lysol Disinfectant	30	50.00	1500
Total									16	748	RM 602	RM 26740

**Diagram 2.6.5 Purchase Order Details Report**