

## Functionality guide

### Description:

It's a warehouse management system for clothing store employees to use. The system is designed for two roles, user and administrator. Users can register and log into the system, as well as check or edit the records of items. Administrators can use this system to management user accounts and admin accounts.

### Highlights:

1. Frontend and backend separation.
2. Animated Login page and signup page.
3. Redirecting anonymous users to index page if they try to access management pages.
4. CRUD are implemented within one html page.
5. Frontend validation and backend validation.

### Two Roles of User with Different Permission

We create two roles of users - administrator and regular user, to perform functions with different permissions to the different databases. Users can choose their roles on the index page.

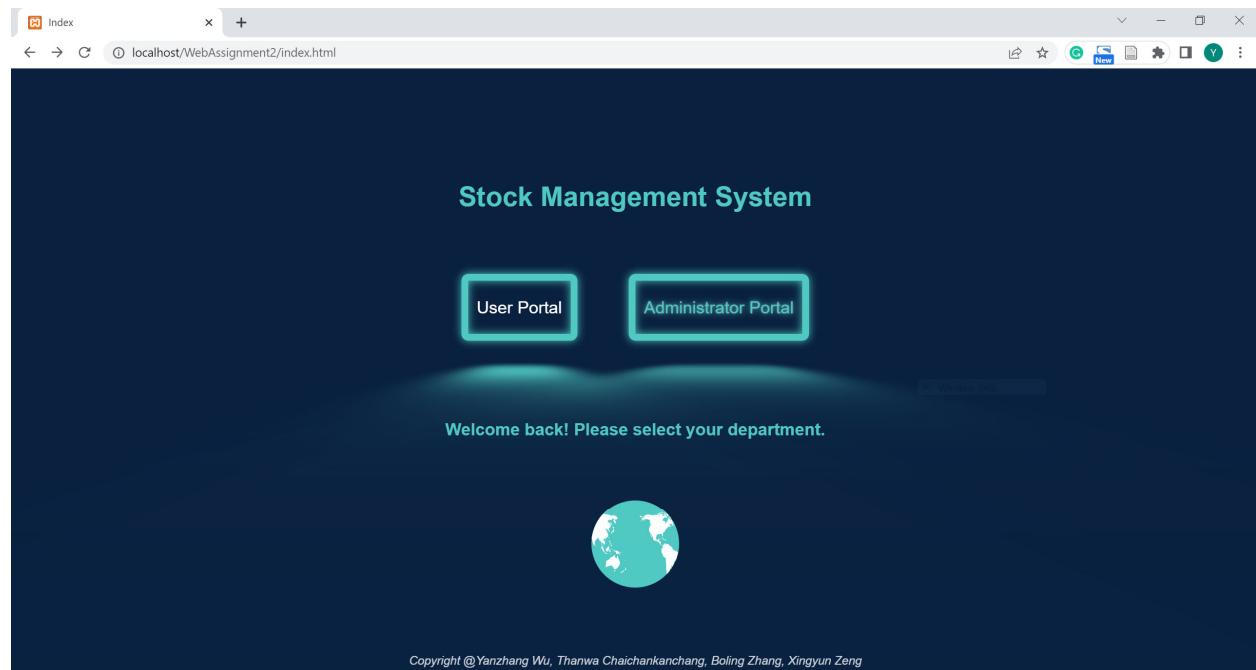


Figure 1. Index Page

## Section 1: Login and Signup

1. The login page has the frontend validation. If user inputs don't meet the requirements, the login request will not be processed.

The screenshot shows a web browser window titled "User Portal" with the URL "localhost/WebAssignment2/userLogin.html". The page has a dark blue header with the title "User Login Portal". Below the header are two input fields: "USERNAME" and "PASSWORD". Each field has a red error message above it: "X User name should be non-empty, and within 20 characters long." for the username and "X Password should be at least 6 characters:1 uppercase,1 lowercase." for the password. Below the inputs are two buttons: "LOGIN" and "Signup". At the bottom center is a globe icon. The footer contains the copyright notice "Copyright @Yanzhang Wu, Thanwa Chaichankanchang, Boling Zhang, Xingyun Zeng".

Figure 2. Frontend Validation—User Login Page

2. When the users' inputs pass the frontend validation, the backend will check if the username and password match the records in the database. If the validation fails, the error message will be displayed.

The screenshot shows a web browser window titled "User Portal" with the URL "localhost/WebAssignment2/userLogin.html". The page has a dark blue header with the title "User Login Portal". Below the header are two input fields: "USERNAME" containing "test001" and "PASSWORD". A red error message box below the inputs states "Username and/or password doesn't match, please try again.". Below the inputs are two buttons: "LOGIN" and "Signup". At the bottom center is a globe icon. The footer contains the copyright notice "Copyright @Yanzhang Wu, Thanwa Chaichankanchang, Boling Zhang, Xingyun Zeng".

Figure 3. Backend Validation—User Login Page

3. Users could register through the Signup page in which frontend validation applies as well.

The screenshot shows a web browser window titled "User Signup" with the URL "localhost/WebAssignment2-master/userSignup.html". The page has a dark blue background with white text. At the top, there are three input fields: "USERNAME", "PASSWORD", and "RETYPE PASSWORD". Each field has a red error message above it: "X User name should be non-empty, and within 20 characters long.", "X Password should be at least 6 characters:1 uppercase,1 lowercase.", and "X Please retype password.". Below these fields is a "SIGNUP" button. In the center of the page is a small globe icon. At the bottom, the copyright notice "Copyright @Yanzhang Wu, Thanwa Chaichankanchang, Boling Zhang, Xingyun Zeng" is visible.

Figure 4. Frontend Validation - User Signup Page

4. The Signup page also includes backend validation. If there are duplicated usernames to be registered, the error message will be displayed.

The screenshot shows a web browser window titled "User Signup" with the URL "localhost/WebAssignment2-master/userSignup.html". The page has a dark blue background with white text. It features the same three input fields ("USERNAME", "PASSWORD", "RETYPE PASSWORD") and "SIGNUP" button as Figure 4. Above the "SIGNUP" button, there is a red error message box containing the text "This username has been used. Try a new username instead.". The copyright notice "Copyright @Yanzhang Wu, Thanwa Chaichankanchang, Boling Zhang, Xingyun Zeng" is at the bottom.

Figure 5. Backend Validation - User Signup Page

5. If the user registers successfully, a successful message will be displayed. Then the page will redirect to the user Login page.

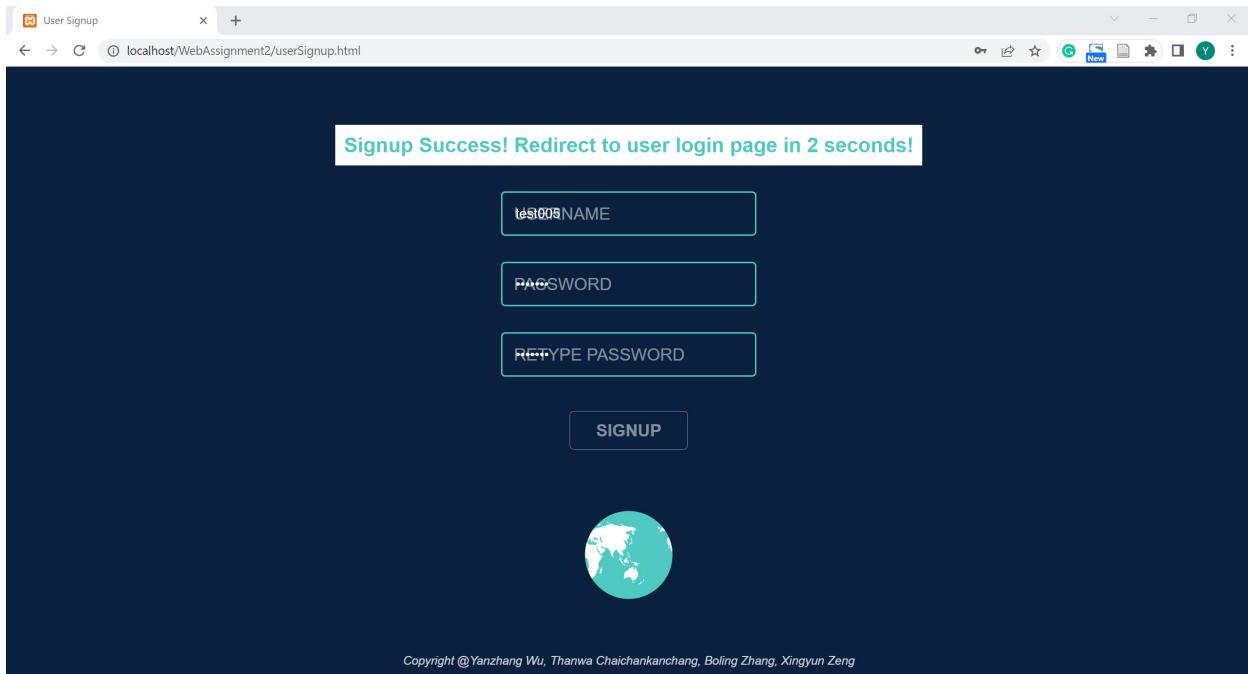


Figure 6. Signup Success. Redirect the Page

6. If the login is successful, the user will be directed to the itemManagement.html. An animation will be played during the page loading.

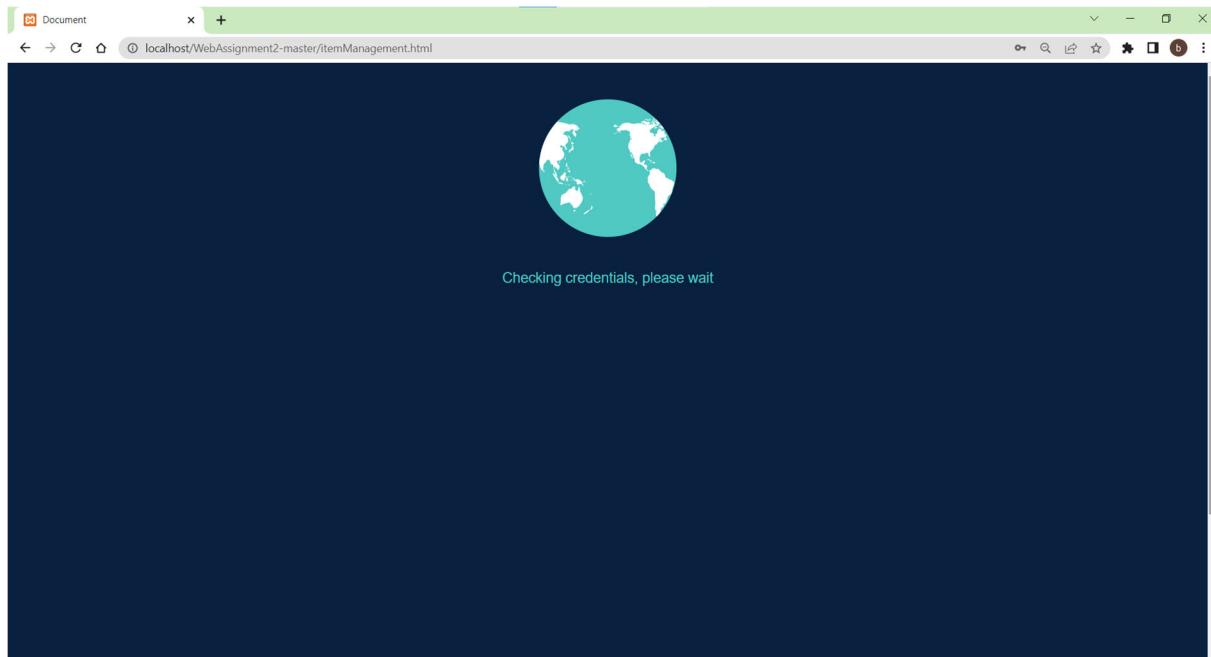


Figure 7. Loading Animation Before Displaying Page to User

7. Users can do CRUD manipulation on the item management table. After the successful login, itemManagement.html will display this table to the user automatically. Examples of CRUD will be discussed in Section 3.

The screenshot shows a web browser window titled "ITEM MANAGEMENT". At the top, there is a search bar labeled "Search for item" and a dropdown menu labeled "Sort by". On the right side of the header are three buttons: "Reset Page", "Add Record", and "Log out". Below the header is a table with the following columns: ID, name, price, quantity, size, color, location, status, intake\_date, and Manage Record. The table contains 7 rows of data. To the left of the table is a sidebar with a heading "Filter by:" and five buttons: "All", "Jacket", "Shirt", "Bikini", and "Suit".

ITEM MANAGEMENT														
Search for item		Sort by												
<b>Filter by:</b>														
All	Jacket	Shirt	Bikini	Suit	ID	name	price	quantity	size	color	location	status	intake_date	Manage Record
1	Jacket	Shirt	Bikini	Suit	1	Jacket	123.40	20	L	black	A1	in stock	2021-10-10	<a href="#">Edit record</a> <a href="#">Delete record</a> <a href="#">Confirm change</a>
2	Jacket	Shirt	Bikini	Suit	2	Jacket	123.40	50	M	pink	A2	in stock	2021-10-20	<a href="#">Edit record</a> <a href="#">Delete record</a> <a href="#">Confirm change</a>
4	Jacket	Shirt	Bikini	Suit	4	Shirt	38.00	0	M	yellow	6	sold out	2021-10-16	<a href="#">Edit record</a> <a href="#">Delete record</a> <a href="#">Confirm change</a>
5	Shirt	Bikini	Suit		5	Bikini	150.00	7	S	blue	B1	in stock	2021-11-02	<a href="#">Edit record</a> <a href="#">Delete record</a> <a href="#">Confirm change</a>
6	Bikini	Suit			6	Bikini	150.00	12	M	black	B1	in stock	2021-11-03	<a href="#">Edit record</a> <a href="#">Delete record</a> <a href="#">Confirm change</a>
7	Suit				7	Suit	530.00	100	XL	black	B2	in stock	2021-11-10	<a href="#">Edit record</a> <a href="#">Delete record</a> <a href="#">Confirm change</a>

Figure 8. Item Management

- Administrators can access the tables of administrator management and user management. CRUD on these tables will perform manipulations on corresponding databases. After the successful login, the admin management table will be shown to the administrators by default. administrators can click the tags on the sidebar to switch between different tables.

The screenshot shows a web browser window titled "Administrator Login Portal". It features two red error boxes: one above the "USERNAME" field stating "X User name should be non-empty, and within 20 characters long." and another above the "PASSWORD" field stating "X Password should be at least 6 characters:1 uppercase,1 lowercase.". Below the error boxes are two input fields: "USERNAME" and "PASSWORD". At the bottom center is a "LOGIN" button and a globe icon.

**Administrator Login Portal**

X User name should be non-empty, and within 20 characters long.

X Password should be at least 6 characters:1 uppercase,1 lowercase.

**LOGIN**



Figure 9. AdminLogin.html

Management

localhost/WebAssignment2-master/management.html

## ADMIN MANAGEMENT

		Search for username	Sort by	Manage Record		
				<a href="#">Edit record</a>	<a href="#">Delete record</a>	<a href="#">Confirm change</a>
		ID	username	password	Manage Record	
User Management	Admin Management	1	admin01	Admin111	<a href="#">Edit record</a>	<a href="#">Delete record</a>
		2	admin02	Admin222	<a href="#">Edit record</a>	<a href="#">Delete record</a>
		3	admin03	Admin333	<a href="#">Edit record</a>	<a href="#">Delete record</a>

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Figure 10. Display Admin Management by Default

Management

localhost/WebAssignment2-master/management.html

## USER MANAGEMENT

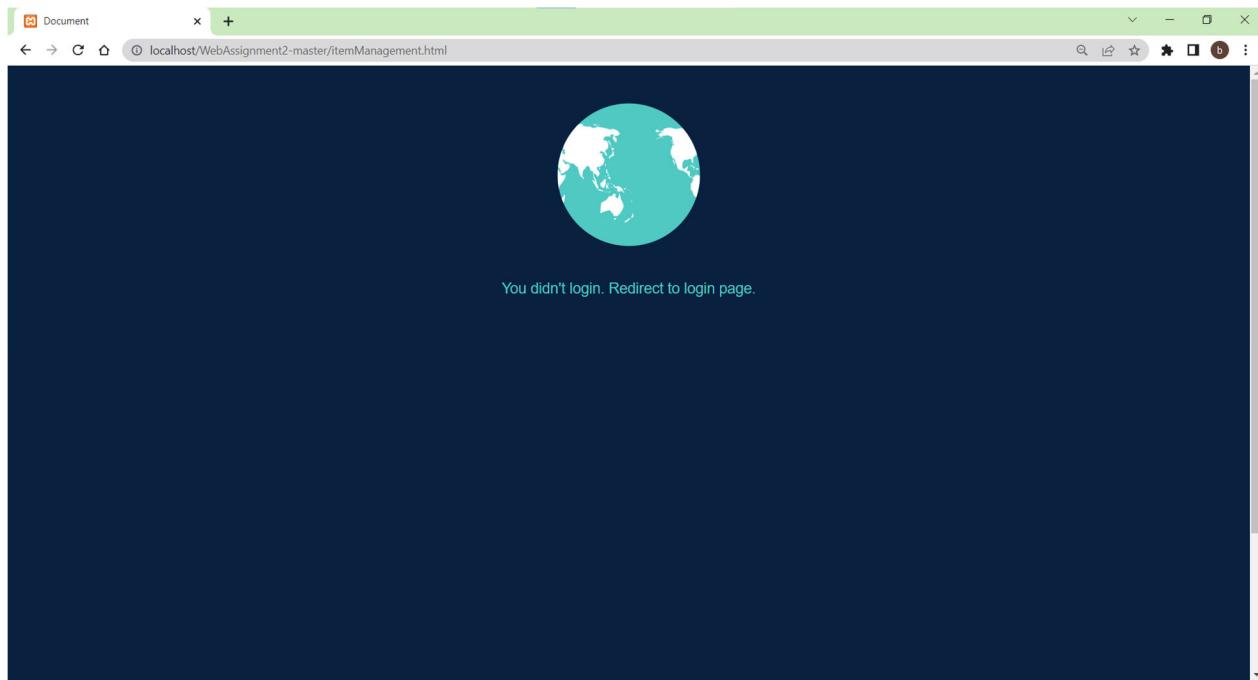
		Search for username	Sort by	Manage Record		
				<a href="#">Edit record</a>	<a href="#">Delete record</a>	<a href="#">Confirm change</a>
		ID	username	password	Manage Record	
User Management	Admin Management	1	test001	Test001	<a href="#">Edit record</a>	<a href="#">Delete record</a>
		2	test002	Test222	<a href="#">Edit record</a>	<a href="#">Delete record</a>
		3	test003	Test333	<a href="#">Edit record</a>	<a href="#">Delete record</a>
		4	test004	Qq1234	<a href="#">Edit record</a>	<a href="#">Delete record</a>
		5	test005	Qq1234	<a href="#">Edit record</a>	<a href="#">Delete record</a>
		6	test007	Qq1234	<a href="#">Edit record</a>	<a href="#">Delete record</a>

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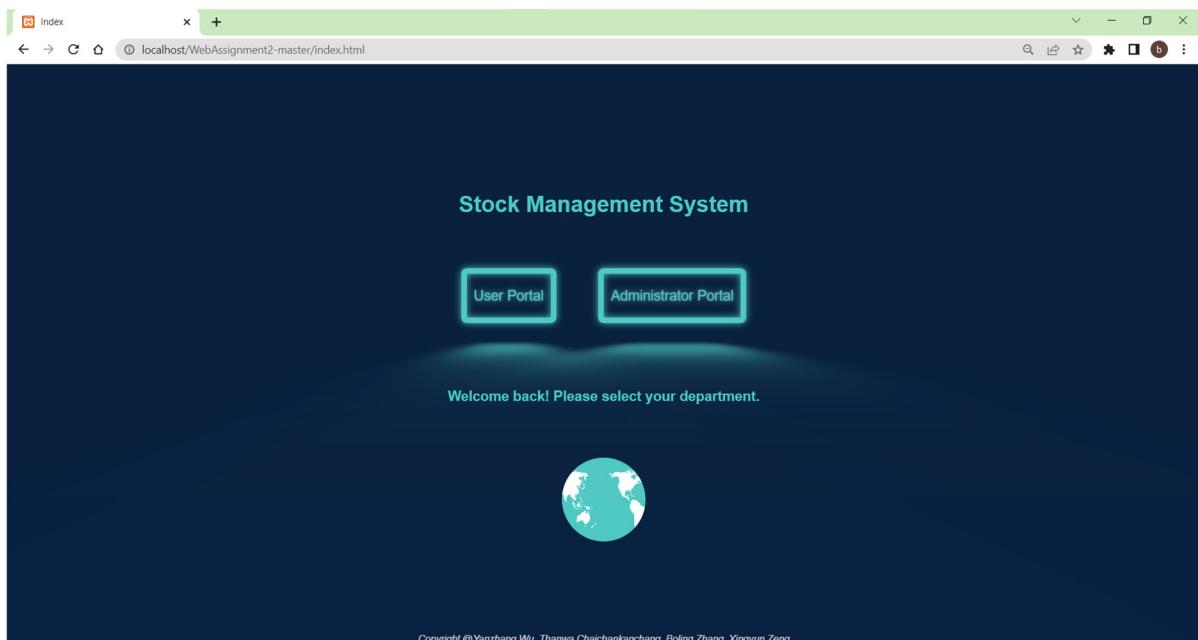
Figure 11. Switch to User Management Table

## Section 2: Anonymous Guest Visits

1. Anonymous guests do not have permission to access itemManagement.html or Management.html. They will be redirected to the index page.



Screenshot 1: Error Message of Anonymous Access



Screenshot 2: Redirect to the Index Page

## Section 3: CRUD Manipulation of Data (user as an example)

### Add Record

1. Users can add records by clicking the “Add Record” button. It will display one row of input boxes for users to insert data. The “Add Record” button stays disabled until “Confirm Add” is clicked.

ID	name	price	quantity	size	color	location	status	intake_date	Manage Record
1	Jacket	123.40	20	L	black	A1	in stock	2021-10-10	<button>Edit</button> <button>Delete</button> <button>Confirm record change</button>
2	Jacket	123.40	50	M	pink	A2	in stock	2021-10-20	<button>Edit</button> <button>Delete</button> <button>Confirm record change</button>
4	Shirt	38.00	0	M	yellow	A2	sold out	2021-10-16	<button>Edit</button> <button>Delete</button> <button>Confirm record change</button>
5	Bikini	150.00	7	S	blue	B1	in stock	2021-11-02	<button>Edit</button> <button>Delete</button> <button>Confirm record change</button>
6	Bikini	150.00	12	M	black	B1	in stock	2021-11-03	<button>Edit</button> <button>Delete</button> <button>Confirm record change</button>
7	Suit	530.00	100	XL	black	B2	in stock	2021-11-10	<button>Edit</button> <button>Delete</button> <button>Confirm record change</button>
8	Shirt	123.00	66	M	red	A1	in stock	2020-12-12	<button>Edit</button> <button>Delete</button> <button>Confirm record change</button>
									<button>Confirm Add</button>

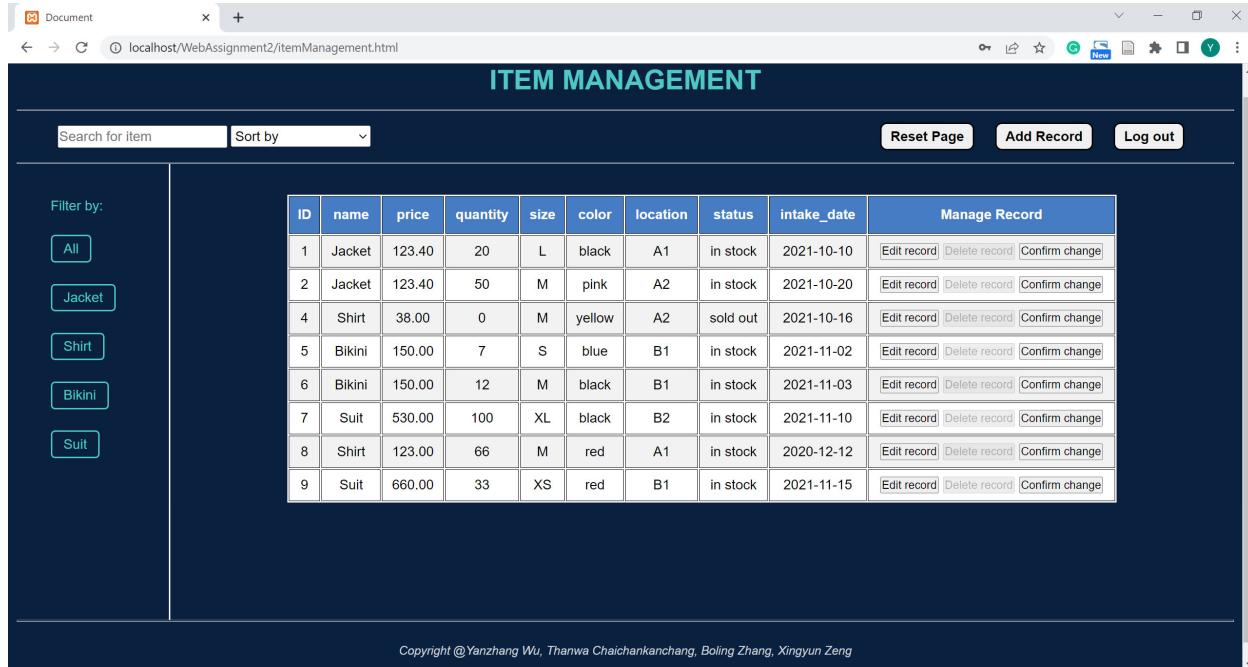
Screenshot 3: Input Boxes for Inserting Records

2. If users insert any invalid data into the boxes, the error message will let the user check the input again and the data insertion fails. For example, if users try to insert a string into the “Price” column, it will fail the validation.

ID	name	price	quantity	size	color	location	status	intake_date	Manage Record
1	Jacket	123.40	20	L	black	A1	in stock	2021-10-10	<button>Edit</button> <button>Delete</button> <button>Confirm record change</button>
2	Jacket	123.40	50	M	pink	A2	in stock	2021-10-20	<button>Edit</button> <button>Delete</button> <button>Confirm record change</button>
4	Shirt	38.00	0	M	yellow	A2	sold out	2021-10-16	<button>Edit</button> <button>Delete</button> <button>Confirm record change</button>
5	Bikini	150.00	7	S	blue	B1	in stock	2021-11-02	<button>Edit</button> <button>Delete</button> <button>Confirm record change</button>
6	Bikini	150.00	12	M	black	B1	in stock	2021-11-03	<button>Edit</button> <button>Delete</button> <button>Confirm record change</button>
7	Suit	530.00	100	XL	black	B2	in stock	2021-11-10	<button>Edit</button> <button>Delete</button> <button>Confirm record change</button>
8	Shirt	123.00	66	M	red	A1	in stock	2020-12-12	<button>Edit</button> <button>Delete</button> <button>Confirm record change</button>
9	Suit	xxx	33	XS	red	B1	in stock	2021-11-15	<button>Confirm Add</button>

Figure 12. Error Message of Backend Validation on the Input Value

3. The user should click the “Confirm Add” button to ensure the creation of the record, then continue other tasks.

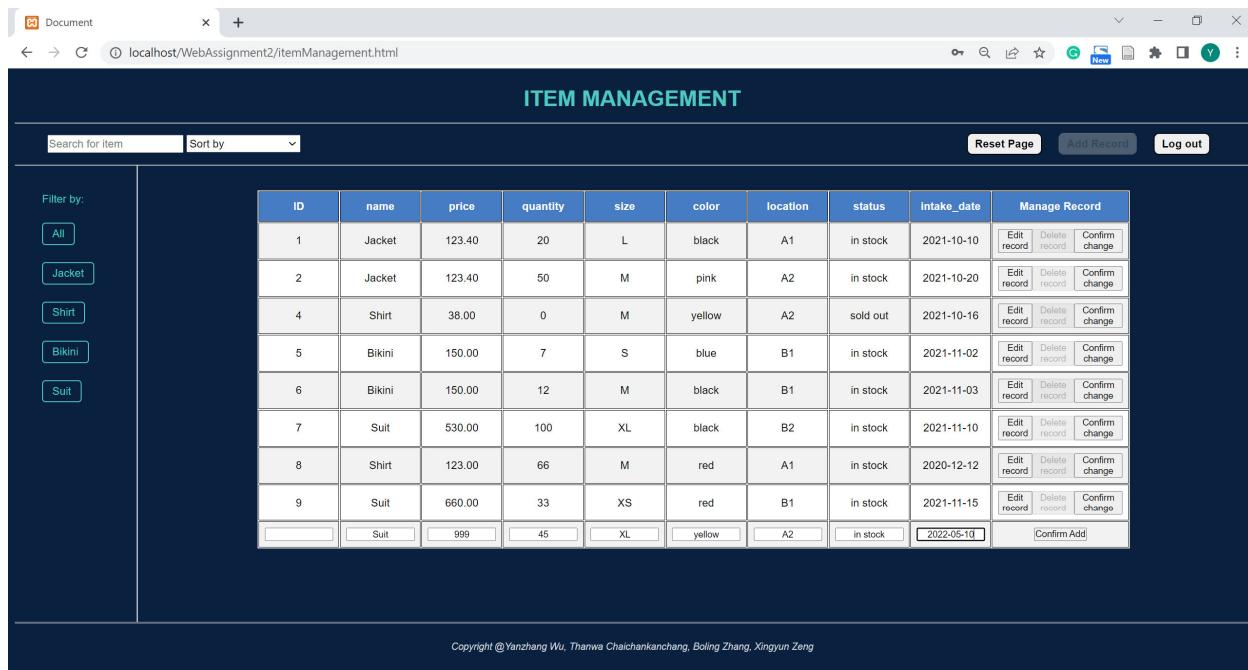


The screenshot shows a web browser window titled "ITEM MANAGEMENT". At the top, there is a search bar labeled "Search for item" and a dropdown menu labeled "Sort by". On the right side of the header are three buttons: "Reset Page", "Add Record", and "Log out". Below the header is a table with the following columns: ID, name, price, quantity, size, color, location, status, intake\_date, and Manage Record. The table contains 9 rows of data. To the left of the table is a sidebar titled "Filter by:" with buttons for "All", "Jacket", "Shirt", "Bikini", and "Suit". At the bottom of the page, there is a copyright notice: "Copyright @Yanzhang Wu, Thanwa Chaichankanchang, Boling Zhang, Xingyun Zeng".

ID	name	price	quantity	size	color	location	status	intake_date	Manage Record
1	Jacket	123.40	20	L	black	A1	in stock	2021-10-10	[Edit record] [Delete record] [Confirm change]
2	Jacket	123.40	50	M	pink	A2	in stock	2021-10-20	[Edit record] [Delete record] [Confirm change]
4	Shirt	38.00	0	M	yellow	A2	sold out	2021-10-16	[Edit record] [Delete record] [Confirm change]
5	Bikini	150.00	7	S	blue	B1	in stock	2021-11-02	[Edit record] [Delete record] [Confirm change]
6	Bikini	150.00	12	M	black	B1	in stock	2021-11-03	[Edit record] [Delete record] [Confirm change]
7	Suit	530.00	100	XL	black	B2	in stock	2021-11-10	[Edit record] [Delete record] [Confirm change]
8	Shirt	123.00	66	M	red	A1	in stock	2020-12-12	[Edit record] [Delete record] [Confirm change]
9	Suit	660.00	33	XS	red	B1	in stock	2021-11-15	[Edit record] [Delete record] [Confirm change]

Figure 13. Add Records with Success

4. If users leave the ID number empty, it will automatically increment the ID number based on the records.



The screenshot shows a web browser window titled "ITEM MANAGEMENT". The layout is identical to Figure 13, with a search bar, "Sort by" dropdown, and "Add Record" button. The table data is the same as in Figure 13. The difference is in the last row of the table, where the "ID" column is empty. The "Manage Record" column for this row contains "[Confirm Add]" instead of the usual edit and delete links. The copyright notice at the bottom is the same.

ID	name	price	quantity	size	color	location	status	intake_date	Manage Record
1	Jacket	123.40	20	L	black	A1	in stock	2021-10-10	[Edit record] [Delete record] [Confirm change]
2	Jacket	123.40	50	M	pink	A2	in stock	2021-10-20	[Edit record] [Delete record] [Confirm change]
4	Shirt	38.00	0	M	yellow	A2	sold out	2021-10-16	[Edit record] [Delete record] [Confirm change]
5	Bikini	150.00	7	S	blue	B1	in stock	2021-11-02	[Edit record] [Delete record] [Confirm change]
6	Bikini	150.00	12	M	black	B1	in stock	2021-11-03	[Edit record] [Delete record] [Confirm change]
7	Suit	530.00	100	XL	black	B2	in stock	2021-11-10	[Edit record] [Delete record] [Confirm change]
8	Shirt	123.00	66	M	red	A1	in stock	2020-12-12	[Edit record] [Delete record] [Confirm change]
9	Suit	660.00	33	XS	red	B1	in stock	2021-11-15	[Edit record] [Delete record] [Confirm change]
	Suit	999	45	XL	yellow	A2	in stock	2022-05-10	[Confirm Add]

Figure 14. Leave the ID Number Input Box Empty While Inserting Records

ITEM MANAGEMENT									
Search for item		Sort by							
				<input type="button" value="Reset Page"/> <input type="button" value="Add Record"/> <input type="button" value="Log out"/>					
<b>Filter by:</b>									
ID	name	price	quantity	size	color	location	status	intake_date	Manage Record
1	Jacket	123.40	20	L	black	A1	in stock	2021-10-10	<input type="button" value="Edit record"/> <input type="button" value="Delete record"/> <input type="button" value="Confirm change"/>
2	Jacket	123.40	50	M	pink	A2	in stock	2021-10-20	<input type="button" value="Edit record"/> <input type="button" value="Delete record"/> <input type="button" value="Confirm change"/>
4	Shirt	38.00	0	M	yellow	A2	sold out	2021-10-16	<input type="button" value="Edit record"/> <input type="button" value="Delete record"/> <input type="button" value="Confirm change"/>
5	Bikini	150.00	7	S	blue	B1	in stock	2021-11-02	<input type="button" value="Edit record"/> <input type="button" value="Delete record"/> <input type="button" value="Confirm change"/>
6	Bikini	150.00	12	M	black	B1	in stock	2021-11-03	<input type="button" value="Edit record"/> <input type="button" value="Delete record"/> <input type="button" value="Confirm change"/>
7	Suit	530.00	100	XL	black	B2	in stock	2021-11-10	<input type="button" value="Edit record"/> <input type="button" value="Delete record"/> <input type="button" value="Confirm change"/>
8	Shirt	123.00	66	M	red	A1	in stock	2020-12-12	<input type="button" value="Edit record"/> <input type="button" value="Delete record"/> <input type="button" value="Confirm change"/>
9	Suit	660.00	33	XS	red	B1	in stock	2021-11-15	<input type="button" value="Edit record"/> <input type="button" value="Delete record"/> <input type="button" value="Confirm change"/>
10	Suit	999.00	45	XL	yellow	A2	in stock	2022-05-10	<input type="button" value="Edit record"/> <input type="button" value="Delete record"/> <input type="button" value="Confirm change"/>

Figure 15. Auto-Increment of ID

## Edit Record

1. Users can edit the records by clicking the “Edit Record” button beside the records. Users should click the “Confirm Change” button after updating the records.

ITEM MANAGEMENT									
Search for item		Sort by							
				<input type="button" value="Reset Page"/> <input type="button" value="Add Record"/> <input type="button" value="Log out"/>					
<b>Filter by:</b>									
ID	name	price	quantity	size	color	location	status	intake_date	Manage Record
1	Jacket	123.40	20	L	black	A1	in stock	2021-10-10	<input type="button" value="Edit record"/> <input type="button" value="Delete record"/> <input type="button" value="Confirm change"/>
2	Jacket	123.40	50	M	pink	A2	in stock	2021-10-20	<input type="button" value="Edit record"/> <input type="button" value="Delete record"/> <input type="button" value="Confirm change"/>
4	Shirt	38.00	0	M	yellow	A2	sold out	2021-10-16	<input type="button" value="Edit record"/> <input type="button" value="Delete record"/> <input type="button" value="Confirm change"/>
5	Bikini	150.00	7	S	blue	B1	in stock	2021-11-02	<input type="button" value="Edit record"/> <input type="button" value="Delete record"/> <input type="button" value="Confirm change"/>
6	Bikini	150.00	12	M	black	B1	in stock	2021-11-03	<input type="button" value="Edit record"/> <input type="button" value="Delete record"/> <input type="button" value="Confirm change"/>
7	Suit	530.00	100	XL	black	B2	in stock	2021-11-10	<input type="button" value="Edit record"/> <input type="button" value="Delete record"/> <input type="button" value="Confirm change"/>
8	Shirt	123.00	66	M	red	A1	in stock	2020-12-12	<input type="button" value="Edit record"/> <input type="button" value="Delete record"/> <input type="button" value="Confirm change"/>
9	Suit	660.00	33	XS	red	B1	in stock	2021-11-15	<input type="button" value="Edit record"/> <input type="button" value="Delete record"/> <input type="button" value="Confirm change"/>
10	Suit	999.00	45	XL	yellow	A2	in stock	2022-05-10	<input type="button" value="Edit record"/> <input type="button" value="Delete record"/> <input type="button" value="Confirm change"/>

Figure 16. Edit Records with Success

2. Same as the case when users try to add invalid records to the table, if users change the values of records into invalid data, an error message occurs.

The screenshot shows a web browser window titled "ITEM MANAGEMENT". The URL is "localhost/WebAssignment2/itemManagement.html". The page contains a table of item data with columns: ID, name, price, quantity, size, color, location, status, intake\_date, and Manage Record. A sidebar on the left allows filtering by category: All, Jacket, Shirt, Bikini, or Suit. The Manage Record column includes buttons for Edit record, Delete record, and Confirm change. In the bottom right corner of the table area, there is a red-bordered box containing the text "Invalid input. Please check and try again".

ID	name	price	quantity	size	color	location	status	intake_date	Manage Record
1	Jacket	123.40	20	L	black	A1	in stock	2021-10-10	<button>Edit record</button> <button>Delete record</button> <button>Confirm change</button>
2	Jacket	123.40	50	M	pink	A2	in stock	2021-10-20	<button>Edit record</button> <button>Delete record</button> <button>Confirm change</button>
4	Shirt	38.00	0	M	yellow	A2	sold out	2021-10-16	<button>Edit record</button> <button>Delete record</button> <button>Confirm change</button>
5	Bikini	150.00	7	S	blue	B1	in stock	2021-11-02	<button>Edit record</button> <button>Delete record</button> <button>Confirm change</button>
6	Bikini	150.00	12	M	black	B1	in stock	2021-11-03	<button>Edit record</button> <button>Delete record</button> <button>Confirm change</button>
7	Suit	530.00	100	XL	black	B2	in stock	2021-11-10	<button>Edit record</button> <button>Delete record</button> <button>Confirm change</button>
8	Shirt	123.00	66	M	red	A1	in stock	2020-12-12	<button>Edit record</button> <button>Delete record</button> <button>Confirm change</button>
9	Suit	660.00	33	XS	red	B1	in stock	2021-11-15	<button>Edit record</button> <button>Delete record</button> <button>Confirm change</button>
10	Suit	ssss	450	XL	yellow	A2	in stock	2022-05-10	<button>Edit record</button> <button>Delete record</button> <button>Confirm change</button>

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Figure 17. Error Message of Invalid Input When Edit

## Delete Record

1. To ensure the safety of data, users should click “Edit Record” before deleting records. The “Delete Record” button is disabled before users click the “Edit Record” button.

The screenshot shows a web browser window titled "ITEM MANAGEMENT". The URL is "localhost/WebAssignment2/itemManagement.html". The page contains a table of item data with columns: ID, name, price, quantity, size, color, location, status, intake\_date, and Manage Record. A sidebar on the left allows filtering by category: All, Jacket, Shirt, Bikini, or Suit. The Manage Record column includes buttons for Edit record, Delete record, and Confirm change. In the "Delete record" button, there is a small gray "disabled" icon. The table data is identical to Figure 17.

ID	name	price	quantity	size	color	location	status	intake_date	Manage Record
1	Jacket	123.40	20	L	black	A1	in stock	2021-10-10	<button>Edit record</button> <button>Delete record</button> <button>Confirm change</button>
2	Jacket	123.40	50	M	pink	A2	in stock	2021-10-20	<button>Edit record</button> <button>Delete record</button> <button>Confirm change</button>
4	Shirt	38.00	0	M	yellow	A2	sold out	2021-10-16	<button>Edit record</button> <button>Delete record</button> <button>Confirm change</button>
5	Bikini	150.00	7	S	blue	B1	in stock	2021-11-02	<button>Edit record</button> <button>Delete record</button> <button>Confirm change</button>
6	Bikini	150.00	12	M	black	B1	in stock	2021-11-03	<button>Edit record</button> <button>Delete record</button> <button>Confirm change</button>
7	Suit	530.00	100	XL	black	B2	in stock	2021-11-10	<button>Edit record</button> <button>Delete record</button> <button>Confirm change</button>
8	Shirt	123.00	66	M	red	A1	in stock	2020-12-12	<button>Edit record</button> <button>Delete record</button> <button>Confirm change</button>
9	Suit	660.00	33	XS	red	B1	in stock	2021-11-15	<button>Edit record</button> <button>Delete record</button> <button>Confirm change</button>
10	Suit	643.00	450	XL	yellow	A2	in stock	2022-05-10	<button>Edit record</button> <button>Delete record</button> <button>Confirm change</button>

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Figure 18. The Disabled “Delete Record” Button

Document X

localhost/WebAssignment2/itemManagement.html

## ITEM MANAGEMENT

		Search for item Sort by										Reset Page Add Record Log out		
Filter by:		ID	name	price	quantity	size	color	location	status	intake_date	Manage Record			
		<input type="button" value="All"/>	1	Jacket	123.40	20	L	black	A1	in stock	2021-10-10	<input type="button" value="Edit record"/>	<input type="button" value="Delete record"/>	<input type="button" value="Confirm change"/>
<input type="button" value="Jacket"/>	2	Jacket	123.40	50	M	pink	A2	in stock	2021-10-20	<input type="button" value="Edit record"/>	<input type="button" value="Delete record"/>	<input type="button" value="Confirm change"/>		
<input type="button" value="Shirt"/>	4	Shirt	38.00	0	M	yellow	A2	sold out	2021-10-16	<input type="button" value="Edit record"/>	<input type="button" value="Delete record"/>	<input type="button" value="Confirm change"/>		
<input type="button" value="Bikini"/>	5	Bikini	150.00	7	S	blue	B1	in stock	2021-11-02	<input type="button" value="Edit record"/>	<input type="button" value="Delete record"/>	<input type="button" value="Confirm change"/>		
<input type="button" value="Suit"/>	6	Bikini	150.00	12	M	black	B1	in stock	2021-11-03	<input type="button" value="Edit record"/>	<input type="button" value="Delete record"/>	<input type="button" value="Confirm change"/>		
	7	Suit	530.00	100	XL	black	B2	in stock	2021-11-10	<input type="button" value="Edit record"/>	<input type="button" value="Delete record"/>	<input type="button" value="Confirm change"/>		
	8	Shirt	123.00	66	M	red	A1	in stock	2020-12-12	<input type="button" value="Edit record"/>	<input type="button" value="Delete record"/>	<input type="button" value="Confirm change"/>		
	9	Suit	660.00	33	XS	red	B1	in stock	2021-11-15	<input type="button" value="Edit record"/>	<input type="button" value="Delete record"/>	<input type="button" value="Confirm change"/>		
	10	Suit	643.00	450	XL	yellow	A2	in stock	2022-05-10	<input type="button" value="Edit record"/>	<input type="button" value="Delete record"/>	<input type="button" value="Confirm change"/>		

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Figure 19. The “Delete Record” Button is Enabled After Clicking the “Edit Change” button

Document X

localhost/WebAssignment2/itemManagement.html

## ITEM MANAGEMENT

		Search for item Sort by										Reset Page Add Record Log out		
Filter by:		ID	name	price	quantity	size	color	location	status	intake_date	Manage Record			
		<input type="button" value="All"/>	1	Jacket	123.40	20	L	black	A1	in stock	2021-10-10	<input type="button" value="Edit record"/>	<input type="button" value="Delete record"/>	<input type="button" value="Confirm change"/>
<input type="button" value="Jacket"/>	2	Jacket	123.40	50	M	pink	A2	in stock	2021-10-20	<input type="button" value="Edit record"/>	<input type="button" value="Delete record"/>	<input type="button" value="Confirm change"/>		
<input type="button" value="Shirt"/>	4	Shirt	38.00	0	M	yellow	A2	sold out	2021-10-16	<input type="button" value="Edit record"/>	<input type="button" value="Delete record"/>	<input type="button" value="Confirm change"/>		
<input type="button" value="Bikini"/>	5	Bikini	150.00	7	S	blue	B1	in stock	2021-11-02	<input type="button" value="Edit record"/>	<input type="button" value="Delete record"/>	<input type="button" value="Confirm change"/>		
<input type="button" value="Suit"/>	6	Bikini	150.00	12	M	black	B1	in stock	2021-11-03	<input type="button" value="Edit record"/>	<input type="button" value="Delete record"/>	<input type="button" value="Confirm change"/>		
	7	Suit	530.00	100	XL	black	B2	in stock	2021-11-10	<input type="button" value="Edit record"/>	<input type="button" value="Delete record"/>	<input type="button" value="Confirm change"/>		
	8	Shirt	123.00	66	M	red	A1	in stock	2020-12-12	<input type="button" value="Edit record"/>	<input type="button" value="Delete record"/>	<input type="button" value="Confirm change"/>		
	9	Suit	660.00	33	XS	red	B1	in stock	2021-11-15	<input type="button" value="Edit record"/>	<input type="button" value="Delete record"/>	<input type="button" value="Confirm change"/>		

Figure 20. Delete Records With Success

## Display Tables in Customized Manners

### Dynamic Searching

1. Users can search for item names in the search bar. Note that the matching of keywords is not case-sensitive.

ID	name	price	quantity	size	color	location	status	intake_date	Manage Record
4	Shirt	38.00	0	M	yellow	A2	sold out	2021-10-16	<a href="#">Edit record</a> <a href="#">Delete record</a> <a href="#">Confirm change</a>
7	Suit	530.00	100	XL	black	B2	in stock	2021-11-10	<a href="#">Edit record</a> <a href="#">Delete record</a> <a href="#">Confirm change</a>
8	Shirt	123.00	66	M	red	A1	in stock	2020-12-12	<a href="#">Edit record</a> <a href="#">Delete record</a> <a href="#">Confirm change</a>
9	Suit	660.00	33	XS	red	B1	in stock	2021-11-15	<a href="#">Edit record</a> <a href="#">Delete record</a> <a href="#">Confirm change</a>

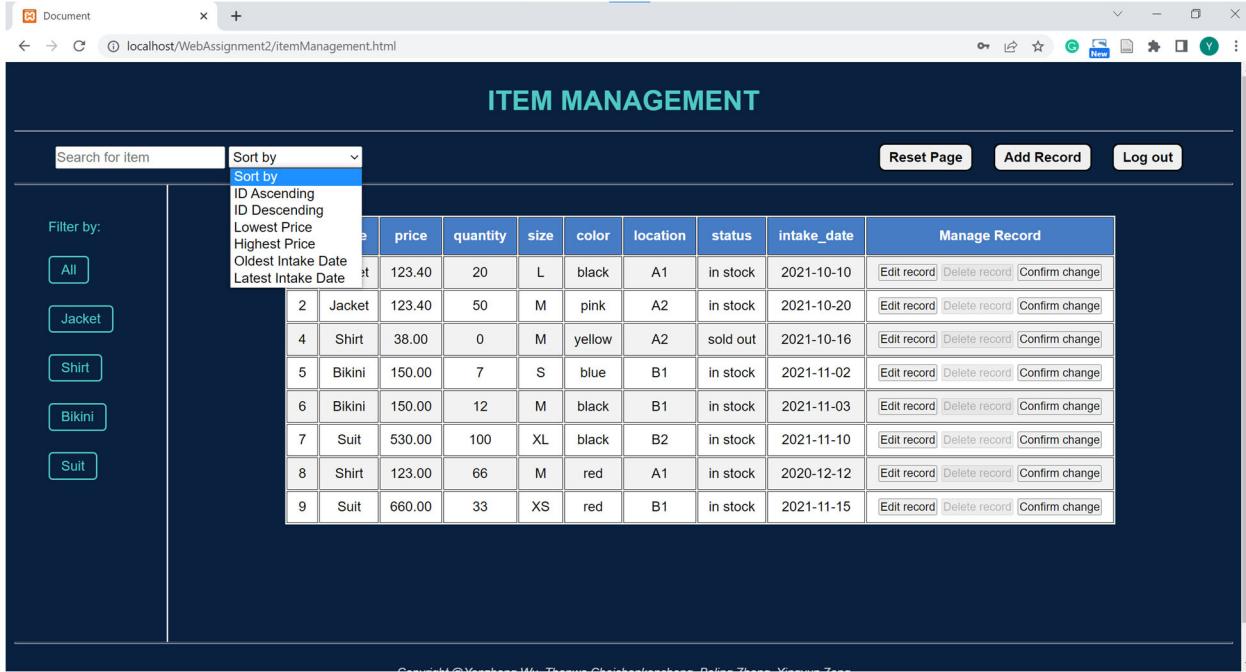
Figure 21. Enter "s" In the Search Bar

ID	name	price	quantity	size	color	location	status	intake_date	Manage Record
4	Shirt	38.00	0	M	yellow	A2	sold out	2021-10-16	<a href="#">Edit record</a> <a href="#">Delete record</a> <a href="#">Confirm change</a>
8	Shirt	123.00	66	M	red	A1	in stock	2020-12-12	<a href="#">Edit record</a> <a href="#">Delete record</a> <a href="#">Confirm change</a>

Figure 22. Enter "sh" In the Search Bar

## Sort

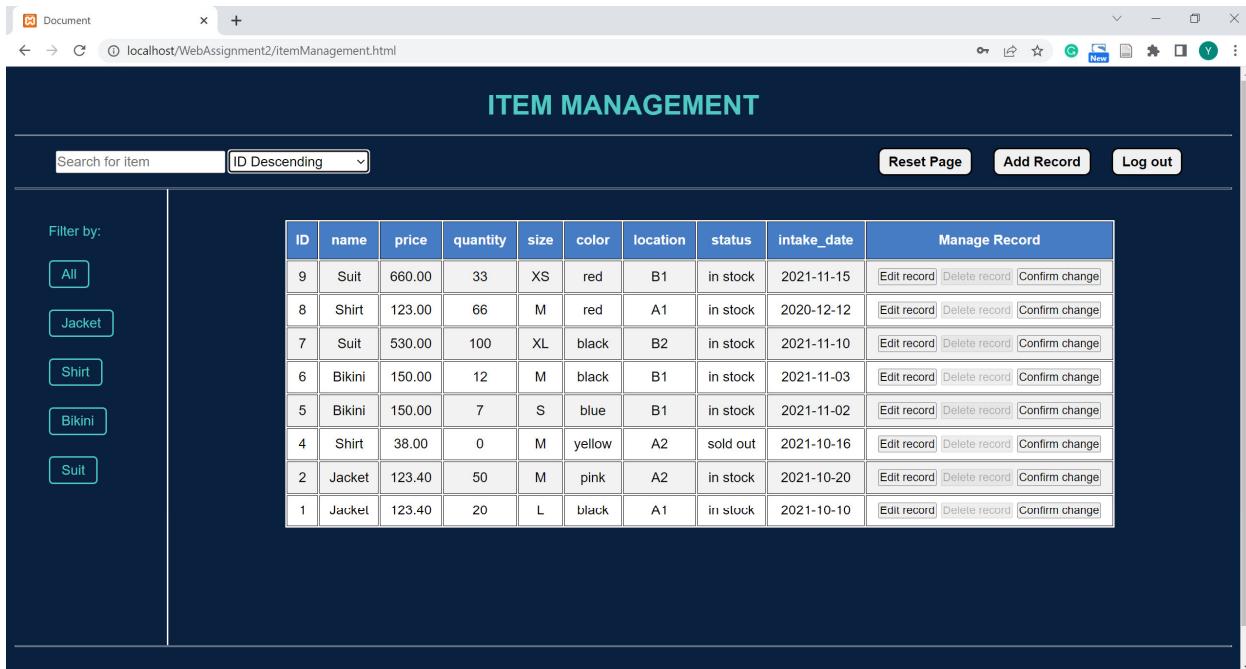
- Users can use the “Sort by” option drop-down list to display the records in different orders. Based on the columns, it can display data either in ascending way or descending way.



The screenshot shows a web browser window titled "ITEM MANAGEMENT". At the top left is a search bar labeled "Search for item". To its right is a dropdown menu labeled "Sort by" which is currently open, showing options: "Sort by", "ID Ascending", "ID Descending", "Lowest Price", "Highest Price", "Oldest Intake Date", and "Latest Intake Date". On the far right of the header are three buttons: "Reset Page", "Add Record", and "Log out". Below the header is a table with the following data:

ID	name	price	quantity	size	color	location	status	intake_date	Manage Record
1	Jacket	123.40	20	L	black	A1	in stock	2021-10-10	[Edit record] [Delete record] [Confirm change]
2	Jacket	123.40	50	M	pink	A2	in stock	2021-10-20	[Edit record] [Delete record] [Confirm change]
4	Shirt	38.00	0	M	yellow	A2	sold out	2021-10-16	[Edit record] [Delete record] [Confirm change]
5	Bikini	150.00	7	S	blue	B1	in stock	2021-11-02	[Edit record] [Delete record] [Confirm change]
6	Bikini	150.00	12	M	black	B1	in stock	2021-11-03	[Edit record] [Delete record] [Confirm change]
7	Suit	530.00	100	XL	black	B2	in stock	2021-11-10	[Edit record] [Delete record] [Confirm change]
8	Shirt	123.00	66	M	red	A1	in stock	2020-12-12	[Edit record] [Delete record] [Confirm change]
9	Suit	660.00	33	XS	red	B1	in stock	2021-11-15	[Edit record] [Delete record] [Confirm change]

Figure 23. Sort By Dropdown List



The screenshot shows the same web browser window as Figure 23, but the "Sort by" dropdown has been set to "ID Descending". The table data is now ordered from highest ID to lowest ID:

ID	name	price	quantity	size	color	location	status	intake_date	Manage Record
9	Suit	660.00	33	XS	red	B1	in stock	2021-11-15	[Edit record] [Delete record] [Confirm change]
8	Shirt	123.00	66	M	red	A1	in stock	2020-12-12	[Edit record] [Delete record] [Confirm change]
7	Suit	530.00	100	XL	black	B2	in stock	2021-11-10	[Edit record] [Delete record] [Confirm change]
6	Bikini	150.00	12	M	black	B1	in stock	2021-11-03	[Edit record] [Delete record] [Confirm change]
5	Bikini	150.00	7	S	blue	B1	in stock	2021-11-02	[Edit record] [Delete record] [Confirm change]
4	Shirt	38.00	0	M	yellow	A2	sold out	2021-10-16	[Edit record] [Delete record] [Confirm change]
2	Jacket	123.40	50	M	pink	A2	in stock	2021-10-20	[Edit record] [Delete record] [Confirm change]
1	Jacket	123.40	20	L	black	A1	in stock	2021-10-10	[Edit record] [Delete record] [Confirm change]

Figure 24. Sort by ID Descending

2. Users can use the combination of Search and Sort. For example, search “Sh” with the oldest intake date.

ID	name	price	quantity	size	color	location	status	intake_date	Manage Record
8	Shirt	123.00	66	M	red	A1	in stock	2020-12-12	<a href="#">Edit record</a> <a href="#">Delete record</a> <a href="#">Confirm change</a>
4	Shirt	38.00	0	M	yellow	A2	sold out	2021-10-16	<a href="#">Edit record</a> <a href="#">Delete record</a> <a href="#">Confirm change</a>

Figure 25. An Example of Search and Sort Combination

## Filters

1. Users can filter the records of items based on their categories. The category tags are listed on the sidebar. By clicking the different tags, users can filter the records.

ID	name	price	quantity	size	color	location	status	intake_date	Manage Record
5	Bikini	150.00	7	S	blue	B1	in stock	2021-11-02	<a href="#">Edit record</a> <a href="#">Delete record</a> <a href="#">Confirm change</a>
6	Bikini	150.00	12	M	black	B1	in stock	2021-11-03	<a href="#">Edit record</a> <a href="#">Delete record</a> <a href="#">Confirm change</a>

Figure 26. Bikini Filter On Active

2. Users can use the combination of Filter and Sort. For example, filter “Suit” with the latest intake date.

ID	name	price	quantity	size	color	location	status	intake_date	Manage Record
9	Suit	660.00	33	XS	red	B1	in stock	2021-11-15	<a href="#">Edit record</a> <a href="#">Delete record</a> <a href="#">Confirm change</a>
7	Suit	530.00	100	XL	black	B2	in stock	2021-11-10	<a href="#">Edit record</a> <a href="#">Delete record</a> <a href="#">Confirm change</a>

Figure 27. An Example Of Filter and Sort Combination

Reset

After displaying the table in different ways, users can click the “Reset Page” button to reset the table back to the default arrangement.

ID	name	price	quantity	size	color	location	status	intake_date	Manage Record
1	Jacket	123.40	20	L	black	A1	in stock	2021-10-10	<a href="#">Edit record</a> <a href="#">Delete record</a> <a href="#">Confirm change</a>
2	Jacket	123.40	50	M	pink	A2	in stock	2021-10-20	<a href="#">Edit record</a> <a href="#">Delete record</a> <a href="#">Confirm change</a>
4	Shirt	38.00	0	M	yellow	A2	sold out	2021-10-16	<a href="#">Edit record</a> <a href="#">Delete record</a> <a href="#">Confirm change</a>
5	Bikini	150.00	7	S	blue	B1	in stock	2021-11-02	<a href="#">Edit record</a> <a href="#">Delete record</a> <a href="#">Confirm change</a>
6	Bikini	150.00	12	M	black	B1	in stock	2021-11-03	<a href="#">Edit record</a> <a href="#">Delete record</a> <a href="#">Confirm change</a>
7	Suit	530.00	100	XL	black	B2	in stock	2021-11-10	<a href="#">Edit record</a> <a href="#">Delete record</a> <a href="#">Confirm change</a>
8	Shirt	123.00	66	M	red	A1	in stock	2020-12-12	<a href="#">Edit record</a> <a href="#">Delete record</a> <a href="#">Confirm change</a>
9	Suit	660.00	33	XS	red	B1	in stock	2021-11-15	<a href="#">Edit record</a> <a href="#">Delete record</a> <a href="#">Confirm change</a>

Screenshot 28: Reset the Table to the Default Arrangement

## Log out

By clicking the “Log Out” button, users will direct to the index page immediately.

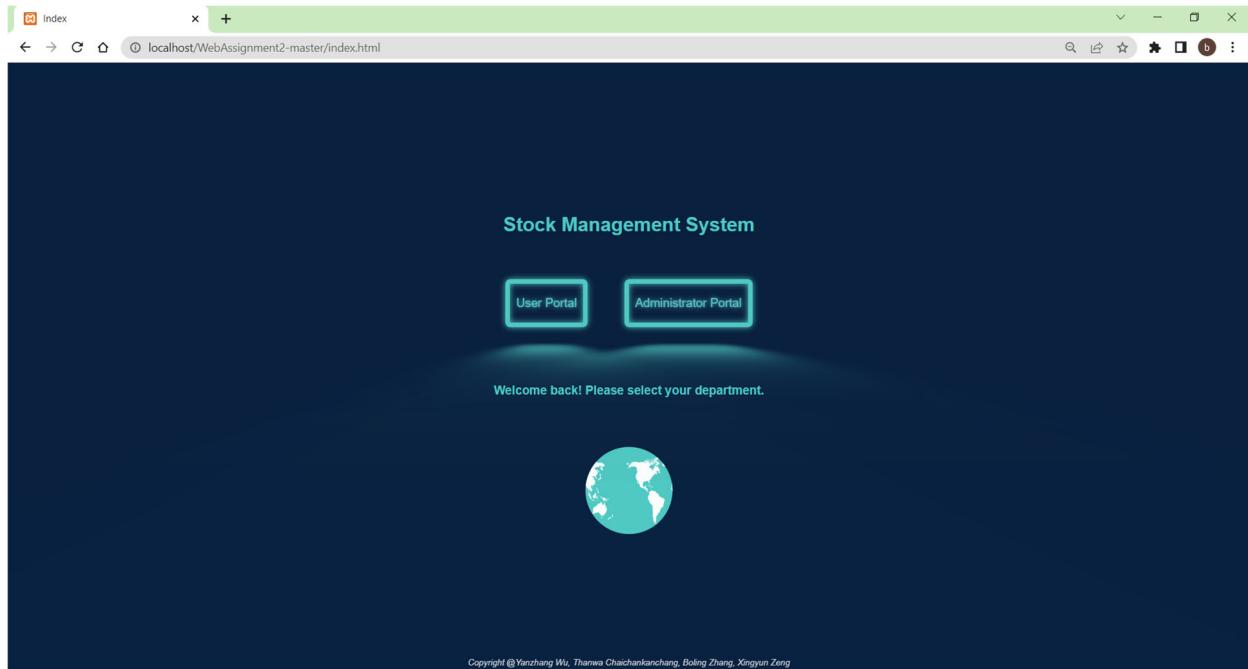


Figure 28. Redirect to the Index Page after Logout