

# Design Specification

Helix

August 2024

## Contents

<b>1</b>	<b>Introduction</b>	<b>2</b>
<b>2</b>	<b>Wireframes</b>	<b>3</b>
2.1	Sign In . . . . .	3
2.2	Create Account . . . . .	4
2.3	Reset Password . . . . .	5
2.4	Dashboard . . . . .	6
2.5	Inventory . . . . .	7
2.6	Reports . . . . .	8
2.7	Inventory, Activity, Order and Supplier Report . . . . .	9
2.8	Orders . . . . .	10
2.9	Suppliers . . . . .	11
2.10	Team . . . . .	12
2.11	Settings . . . . .	13
2.12	Help . . . . .	15
<b>3</b>	<b>Database Design</b>	<b>19</b>

# 1 Introduction

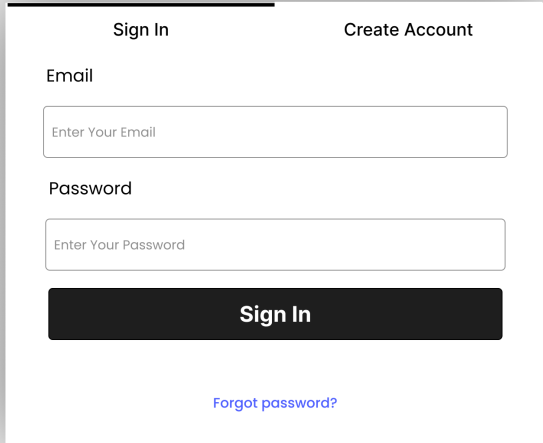
Smart Inventory is a comprehensive web-based application designed to revolutionize inventory management for businesses of all sizes, including restaurants and laboratories. This design specification outlines the visual elements and functionalities that will shape the user experience within Smart Inventory.

- Wire-frames and detailed design mock ups will illustrate the user interface, navigation flow, and interaction patterns for each user role.
- Additionally, this document will include a section dedicated to the design of the database schema for Amazon DynamoDB, the NoSQL database service that will power Smart Inventory's data storage and retrieval capabilities.

The document aims to provide a clear road-map for developers to translate the vision of Smart Inventory into a user-centric and efficient application.

## 2 Wireframes

### 2.1 Sign In

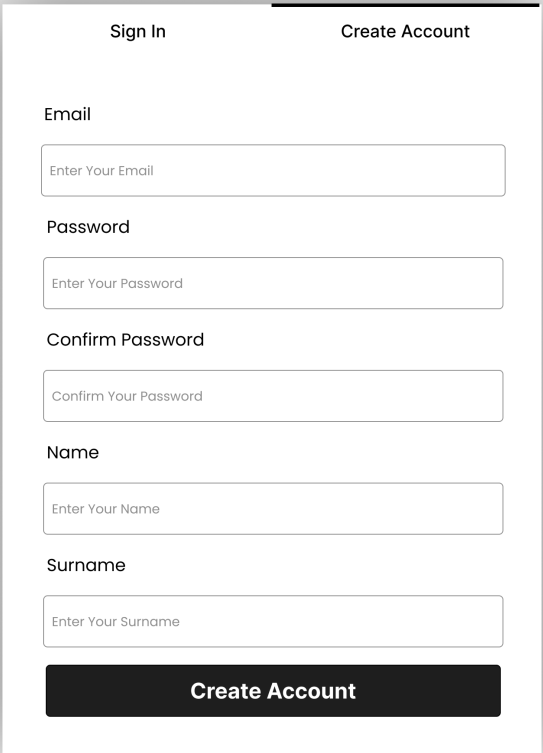


The wireframe shows a sign-in form with a white background and a subtle drop shadow. At the top, there are two tabs: "Sign In" (active) and "Create Account". Below the tabs, the form contains the following elements:

- Email:** A text input field with the placeholder text "Enter Your Email".
- Password:** A text input field with the placeholder text "Enter Your Password".
- Sign In:** A dark gray button with the text "Sign In" in white.
- Forgot password?:** A blue link text located below the sign-in button.

Figure 1: Sign In

## 2.2 Create Account



The image shows a 'Create Account' form with a light gray background and a subtle shadow. At the top, there are two tabs: 'Sign In' and 'Create Account', with the latter being the active tab. The form contains several input fields with placeholder text: 'Email' (placeholder: 'Enter Your Email'), 'Password' (placeholder: 'Enter Your Password'), 'Confirm Password' (placeholder: 'Confirm Your Password'), 'Name' (placeholder: 'Enter Your Name'), and 'Surname' (placeholder: 'Enter Your Surname'). At the bottom of the form is a dark gray button with the text 'Create Account' in white.

Sign In      Create Account

Email

Enter Your Email

Password

Enter Your Password

Confirm Password

Confirm Your Password

Name

Enter Your Name

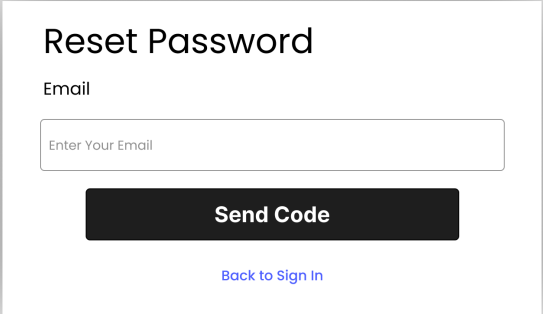
Surname

Enter Your Surname

Create Account

Figure 2: Create Account

## 2.3 Reset Password



The image shows a 'Reset Password' form centered on a light gray background. The form is a white rectangle with a subtle drop shadow. It contains the title 'Reset Password' in a bold, black font. Below the title is the label 'Email' in a smaller, regular black font. Underneath the label is a text input field with a light gray border and the placeholder text 'Enter Your Email'. Below the input field is a dark gray button with the text 'Send Code' in white. At the bottom of the form is a blue link that says 'Back to Sign In'.

Figure 3: Reset Password

## 2.4 Dashboard

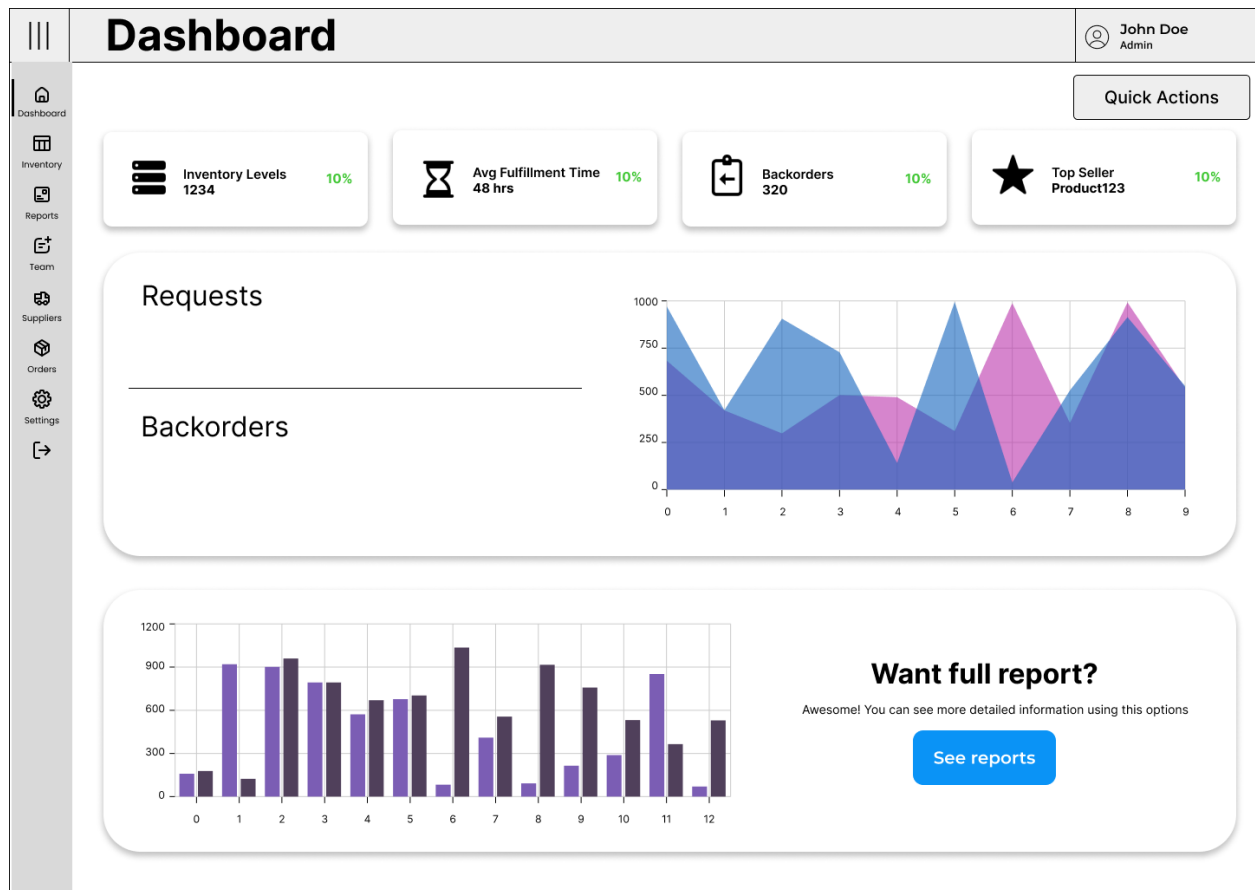


Figure 4: Dashboard

2.5 Inventory

|||

Dashboard

Inventory

Reports

Team

Suppliers

Orders

Settings

↗

Inventory

Q Search order ID

Select Column ▾

SKU ID	Product ID	Description	Quantity	Supplier
EKU123	UYTRDCVBNM	Laptop	3	Amazon D
EKU124	UYGTVBNMGB	TV	3	Takelot

John Doe  
Admin

Quick Actions

Export To Excel

Import To Excel

Add Item

Remove Item

Request Items

Figure 5: Inventory

## 2.6 Reports

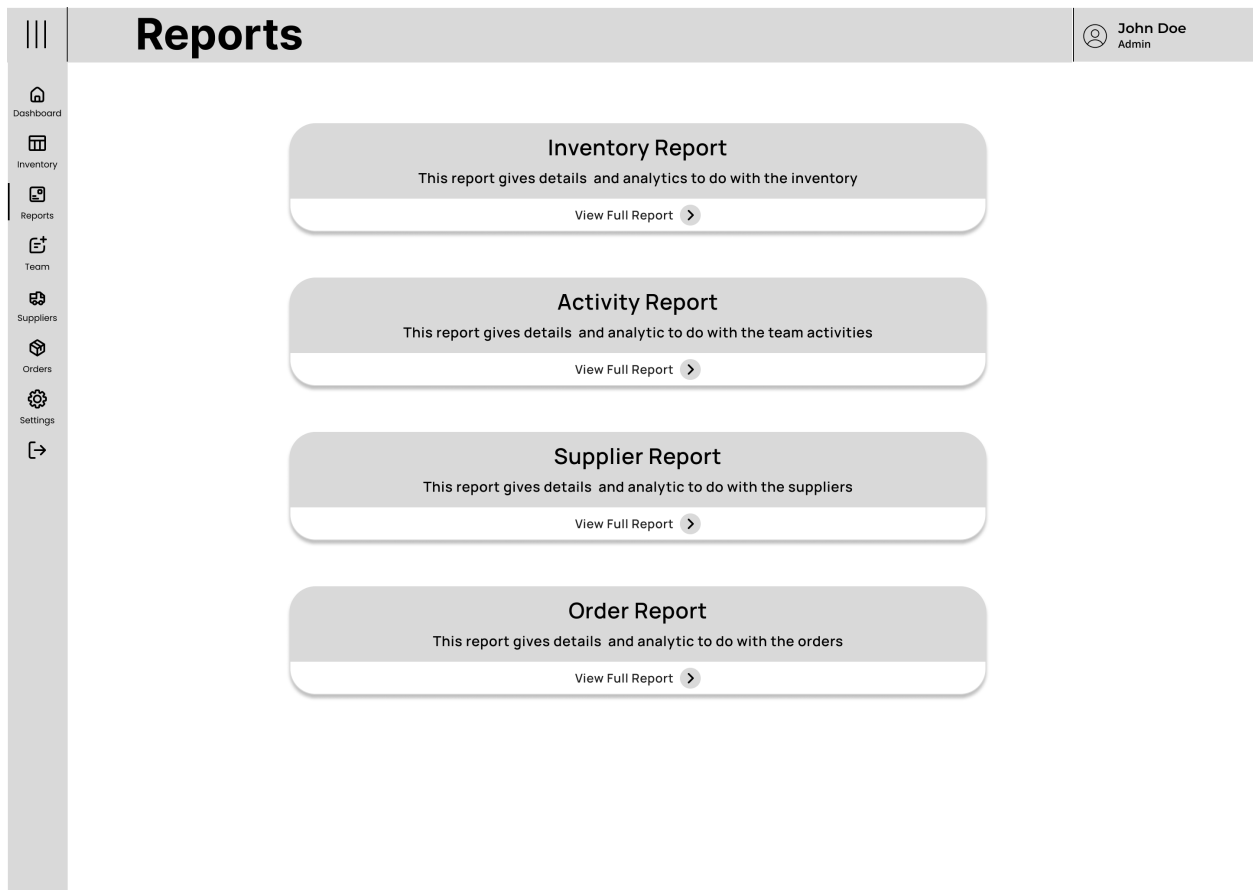


Figure 6: Reports



2.7 Inventory, Activity, Order and Supplier Report

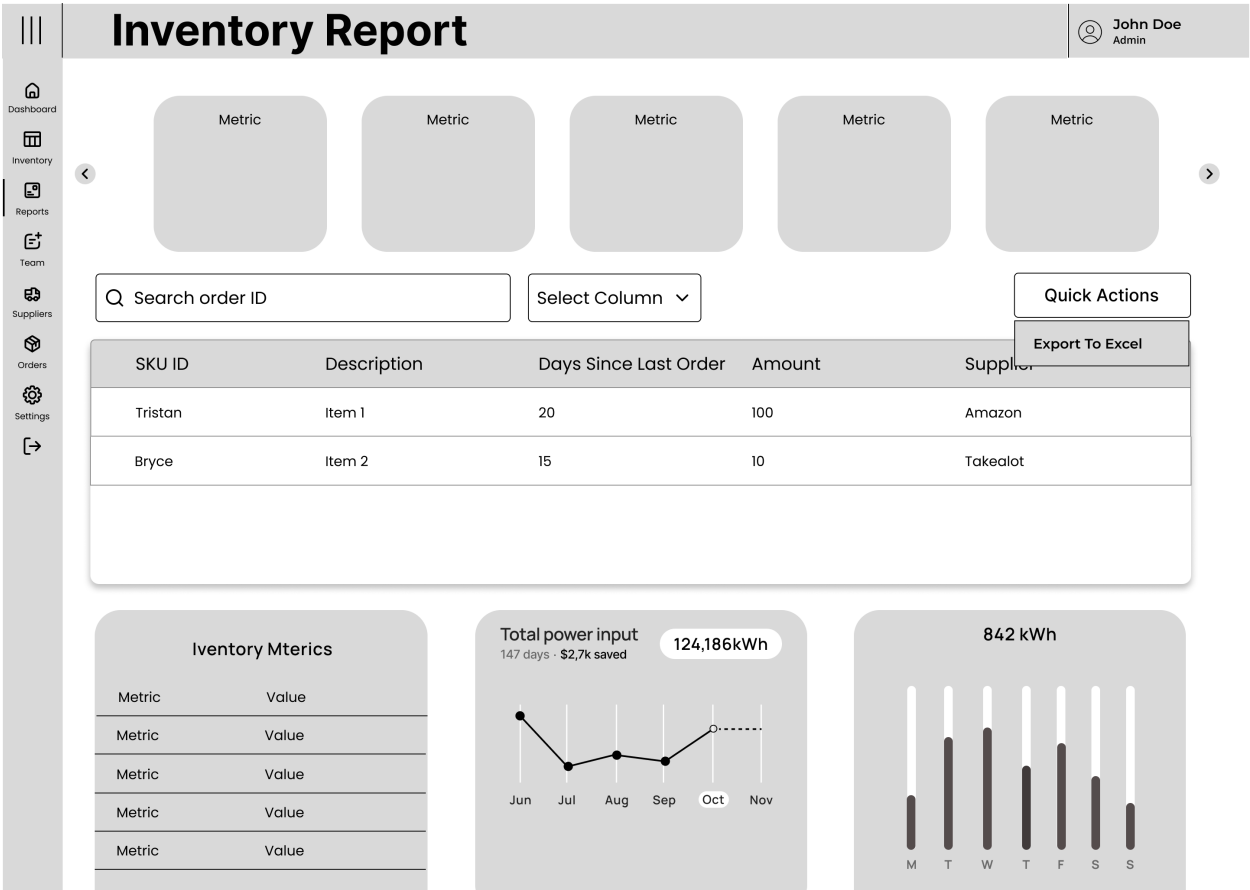


Figure 7: Report Types

## 2.8 Orders

<div>Dashboard</div> <div>Inventory</div> <div>Reports</div> <div>Team</div> <div>Suppliers</div> <div>Orders</div> <div>Settings</div> <div></div>	Orders					John Doe Admin
	Q Search order ID		Select Column ▾		Quick Actions	
	Order ID	Date	Supplier	Destination	Items	Export To Excel
	#132	01/01/2020	Amazon Delivery	Randburg	3	Import To Excel
	#142	01/01/2020	Takelot	Joburg	3	Cancel Order
						Create Order

Figure 8: Orders

## 2.9 Suppliers

|||

Dashboard

Inventory

Reports

Team

Suppliers

Orders

# Suppliers

Select Column ▾

Quick Actions

Export To Excel

Import To Excel

Add Supplier

Remove Supplier

Supplier ID	Supplier	Email	Location
#132	Amazon Delivery	Amazon@gmail.com	Randburg
#142	Takelot	Takealot@gmail.com	Joburg

Figure 9: Suppliers

## 2.10 Team

|||

Dashboard

Inventory

Reports

Team

Suppliers

Orders

Settings

→

# Team

Name	Surname	Role	Email	Actions
Tristan	Amazon Delivery	Inventory Controller	Tristan@gmail.com	<input type="button" value="Delete"/>
Bryce	Sukdeo	End-User	Bryce@gmail.com	<input type="button" value="Delete"/>

John Doe  
Admin

Quick Actions

Export To Excel

Add Member

Remove Member

Figure 10: Team

## 2.11 Settings

### 2.11.1 Profile

The screenshot displays a web application interface for user settings. At the top, a header bar contains a hamburger menu icon, the title 'Settings', and a user profile 'John Doe Admin'. Below the header, a sub-header bar has two tabs: 'Profile' (active) and 'Settings'. On the left, a vertical sidebar lists navigation items: Dashboard, Inventory, Reports, Team, Suppliers, Orders, and Settings (highlighted with a gear icon). The main content area is titled 'Personal details' and contains three input fields: 'Name', 'Surname', and 'Email'. A 'Save Changes' button is positioned below the 'Email' field. The next section, titled 'Password', includes a 'Current Password' input field and a 'Change password' button. The final section, titled 'Delete Account', features a 'Delete Account' button.

Settings		John Doe Admin
Profile	Settings	
<b>Personal details</b>		
Name	Surname	
Email		
Save Changes		
<b>Password</b>		
Current Password	Change password	
<b>Delete Account</b>		
Delete Account		

Figure 11: Profile

### 2.11.2 Preferences

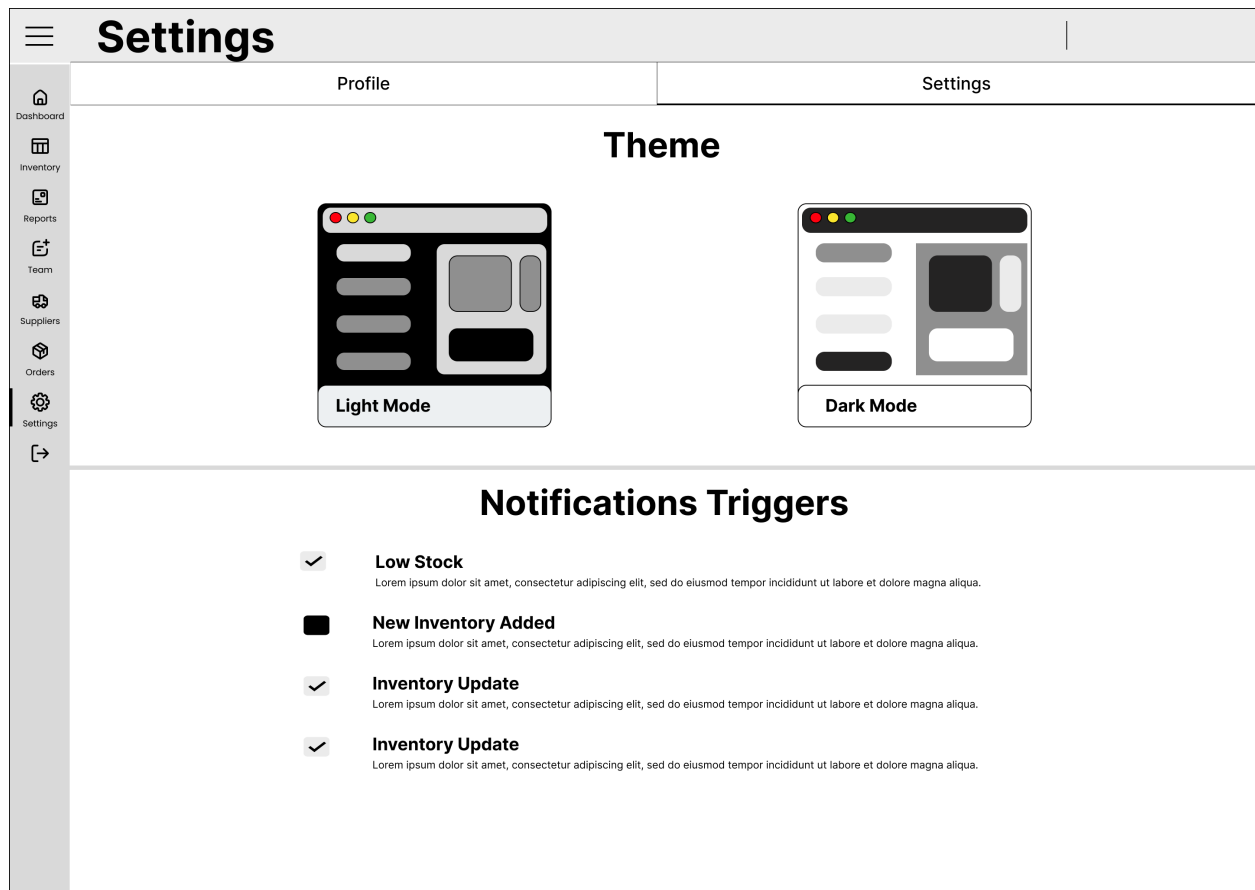


Figure 12: Preferences

## 2.12 Help

### 2.12.1 FAQs

The screenshot displays the 'Help' section of a web application. The top header is grey and contains the word 'Help' on the left and a user profile 'John Doe Admin' on the right. Below the header, there are four tabs: 'FAQs', 'Troubleshooting', 'User Guides', and 'Contact Support'. The 'FAQs' tab is active. Below the tabs, there are six category buttons: 'General', 'Dashboard', 'Inventory', 'Team', 'Suppliers', and 'Orders'. The 'General' category is selected, showing a list of 18 frequently asked questions in a table-like format. The sidebar on the left contains icons and labels for 'Dashboard', 'Inventory', 'Reports', 'Team', 'Suppliers', 'Orders', 'Settings', and an external link icon.

FAQs	Troubleshooting	User Guides	Contact Support
General	Dashboard	Inventory	Team
Suppliers	Orders		
How to reset my password?			
How to remember my password on sign in?			
How to change my email?			
How to change my name?			
How to add inventory?			
How to remove inventory?			
How to edit inventory?			
How to move widget?			
How to remove widget?			
How to add member to my team?			
How to remove member from my team?			
How to edit member of my teams details?			
How to add a supplier?			
How to remove a supplier?			
How to edit supplier details?			
How to cancel orders?			

Figure 13: FAQs

### 2.12.2 Troubleshooting

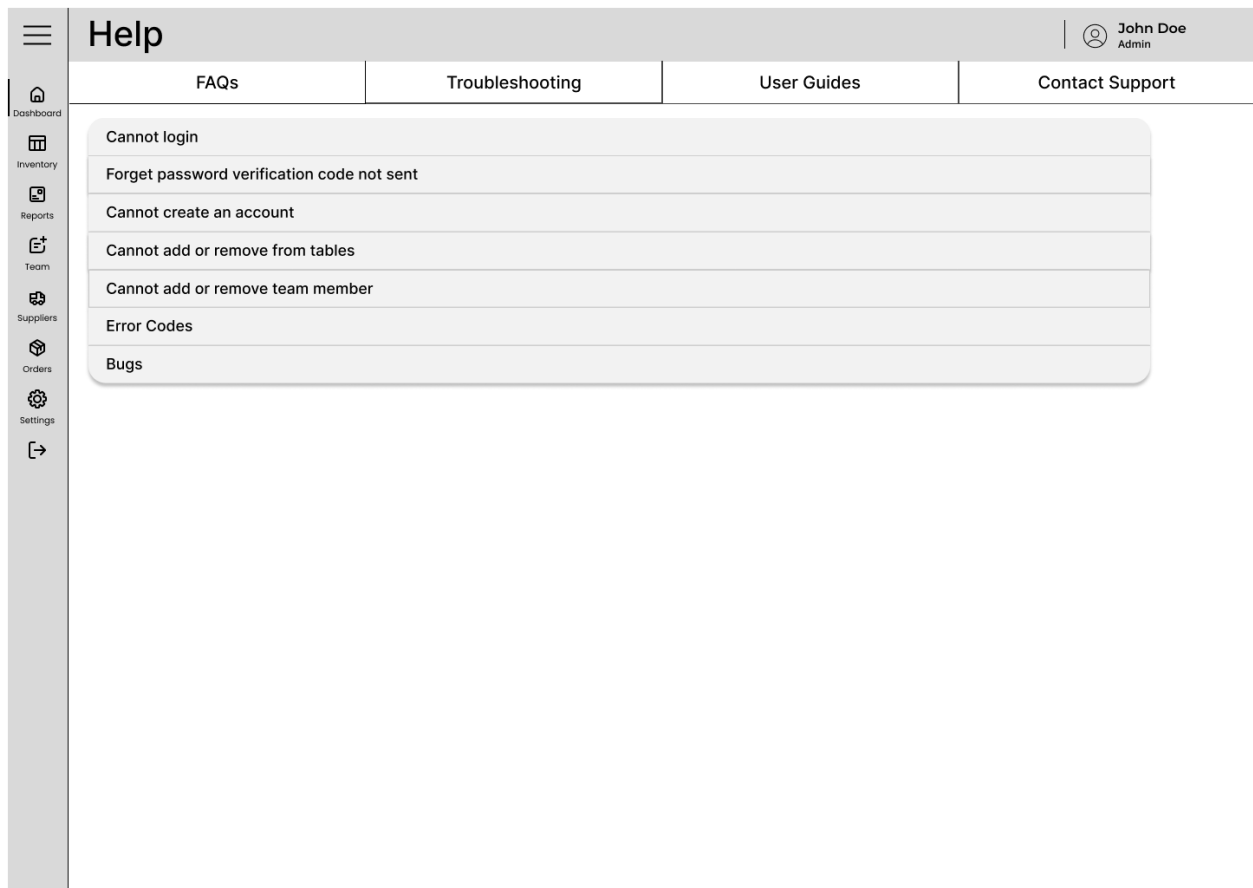


Figure 14: Troubleshooting



### 2.12.3 User Guide

Dashboard

Inventory

Reports

Team

Suppliers

Orders

Settings

Help

FAQs

Troubleshooting

User Guides

Contact Support

John Doe

Admin

Introduction

SmartInventory is a comprehensive web-based inventory management system designed to streamline and automate the process of tracking, ordering, and managing stock for businesses, restaurants, and laboratories. The system aims to simplify inventory management by providing a user-friendly interface for administrators, inventory controllers, and end users to capture stock details, request stock, and generate insightful reports.

Roles

SmartInventory caters to different user roles within your organization, each with specific functionalities to optimize inventory management. Here's a breakdown of these roles:

1. Administrator:

2. These users have access to all features available.

3. Inventory Controller:

4. These users have access to almost all features available. The only feature they do not have control over is the teams feature.

5. End-User:

6. These users can only request stock from the inventory.

Dashboard

The Smart Inventory dashboard offers a customizable workspace to visualize key data points and manage your inventory efficiently. Here's a breakdown of its key components:

1. Quick Actions Button: This button, typically located at the top right side of the dashboard, lets you add new widgets to personalize your view as well as remove widgets. Clicking it reveals a menu with various widget types:

• Graphs: Visualize trends and patterns in data using line, bar, pie charts, and more.

• Summaries: Get quick overviews of key metrics like total stock levels, low stock alerts, or product category breakdowns.

• Tables: View detailed inventory information in a structured format, allowing sorting and filtering based on your needs.

Introduction

Roles

Dashboard

Inventory

Reports

Team

Suppliers

Orders

Video Tutorials

Figure 15: User Guide

17

### 2.12.4 Contact Support

The screenshot shows a web application interface with a sidebar on the left and a main content area. The sidebar contains icons for Dashboard, Inventory, Reports, Team, Suppliers, Orders, Settings, and an external link. The top header has a 'Help' section with links to FAQs, Troubleshooting, User Guides, and Contact Support. The user 'John Doe Admin' is logged in. The 'Contact Support' form is titled 'How can we help?' and has three input fields: 'Name\*', 'Email address\*', and 'Message\*'. A 'Send' button is located below the message field.

Help			
FAQs	Troubleshooting	User Guides	Contact Support

How can we help?

Name\*

Email address\*

Message\*

Send

Figure 16: Contact Support

### 3 Database Design

The Smart Inventory system will utilize Amazon DynamoDB, a fully managed NoSQL database service provided by Amazon Web Services (AWS). DynamoDB offers high scalability, low latency, and flexible data modeling, making it suitable for the inventory management system. The key tables and their sample data are as follows:

Table 1: Users Table (Cognito)

Partition key: User name	
Attributes:	
User name	First
Email	Last
Verified	Tenant ID

Table 2: Suppliers Table

Partition key: supplierID	
Attributes:	
supplierID	contactPhone
Address	createdAt
contactEmail	name
	updatedAt

Table 3: Stock Requests Table

Partition key: stockRequestedId	
Attributes:	
stockRequestedId	SKU
tenantId	supplier
createdAt	type
qtyReq	

Table 4: Products Table

Partition key: productID	
Attributes:	
productID	Additional attributes (not specified in the original data)

Table 5: Inventory Table

Partition key: inventoryID	
Sort key: tenentId	
Attributes:	
inventoryID	lowStockThreshold
tenentId	upc
category	reorderFreq
createdAt	SKU
description	supplier
expirationDate	

Table 6: Orders Table

Partition key: Order_ID	
Sort key: Order_Date	
Attributes:	
Order_ID	Order_Status
Order_Date	Quote_ID
Actual_Delivery_Date	Quote_Status
Creation_Time	Selected_Supplier
Expected_Delivery_Date	tenentId

Table 7: Generated Quote Suppliers Table

Partition key: QuoteID	
Sort key: company_name	
Attributes:	
QuoteID	supplierID
company_name	tenentId

Table 8: Generated Quote Items Table

Partition key: QuoteID	
Sort key: ItemSKU	
Attributes:	
QuoteID	Quantity
ItemSKU	tenentId
inventoryID	

Table 9: Supplier Quote Prices Table

Partition key:	QuoteID
Sort key:	upc_SupplierID
Attributes:	
QuoteID	TotalPrice
upc	Discount
SupplierID	IsAvailable
ItemSKU	tenantId
UnitPrice	Timestamp
AvailableQuantity	

Table 10: Supplier Quote Summary Table

Partition key:	QuoteID
Sort key:	SupplierID
Attributes:	
QuoteID	Subtotal
SupplierID	Total_Quote_Value
VAT_Percentage	Currency
VAT_Amount	Additional_Comments
Delivery_Date	tenantId
Delivery_Cost	Timestamp

DynamoDB's querying capabilities and AWS integration make it suitable for the SmartInventory system. The design can evolve, leveraging DynamoDB's scalability and flexibility.