

This report provides a comprehensive, user-friendly guide to the **Orders** sub-module within the Dispatch Management system. It's designed to help you efficiently manage, track, and optimize all delivery and dispatch requests, ensuring smooth operations and satisfied customers.

1. Executive Summary

The **Orders** module is your central hub for all delivery and dispatch activities. It empowers you to effortlessly create new orders, make necessary adjustments, assign them to the right drivers and vehicles, and keep a real-time pulse on their progress. By streamlining these crucial steps, the module helps you reduce manual effort, minimize errors, and ensure timely, accurate deliveries. This ultimately leads to significant time savings, greater operational control, and enhanced customer satisfaction.

2. Introduction

In today's fast-paced environment, managing deliveries effectively is crucial for any business. You need a reliable way to keep track of every package, ensure it reaches its destination on time, and quickly adapt to changes. That's exactly where the **Orders** module comes in.

The purpose of this module is to give you a powerful, intuitive tool to oversee your entire delivery ecosystem. From the moment an order is placed until it's successfully delivered, this system helps you maintain control and visibility.

Here's what some common terms mean in plain English:

- **Order:** A request for a delivery or dispatch service, containing details like what's being sent, where it's going, and who it's for.
- **Merchant:** The sender or business from whom the items are being picked up.
- **Customer:** The recipient of the order.
- **Driver:** The individual responsible for picking up and delivering the order.
- **Dispatch:** The process of assigning an order to a driver and vehicle for delivery.

3. Main Content (User-Focused Sections)

What This Means for You

- **Less time spent on manual order tracking:** Centralized management means you always know where your orders are without chasing down details.
- **Peace of mind knowing deliveries are on track:** Real-time status updates and map views allow you to monitor progress effortlessly.
- **Flexibility to adapt to changes:** Easily edit delivery times, locations, or reassign drivers as needs evolve.
- **Confidence in accurate driver assignments:** The system helps you assign orders to available drivers, even considering their current workload.
- **Better decision-making with comprehensive reports:** Access detailed customer, merchant, load, and material collection reports for valuable insights.
- **Faster onboarding for new orders and merchants:** Quickly add new delivery requests and configure merchant details.

How It Works

The **Orders** module simplifies your dispatch process into a clear, manageable flow. Refer to the **Flow Chart Diagram** below for a visual representation:

1. **Log In and Access:** After logging into the system, navigate to the **Dispatch Management** module and select the **Orders** submenu.

2. **Create New Orders:** Click **+Add Order** to enter new delivery requests. You'll provide essential details like dates, times, pickup/delivery locations, merchant, customer, and package specifics. You can also add new merchants on the fly.
3. **Manage Existing Orders:** View a list of all orders. From here, you can:
 - **Edit** an order to change details (e.g., delivery time, location, status).
 - **Assign** orders to available drivers and vehicles, individually or in bulk.
 - **Track** orders in real-time on a map.
 - **Update Status** (e.g., to 'In Progress', 'Completed', or 'Failed Delivery').
 - **Delete** orders if they need to be canceled.
4. **Monitor & Report:** Use the various reports (Customer Order Summary, Merchant Order Summary, Load and Unload, Material Collection) to gain insights into your operations, track performance, and verify data accuracy.

Getting Started

Follow these steps to effectively use the Orders module:

1. **Log in** to the application using your credentials.
2. Navigate to the **Dispatch Management** module from your main dashboard.
3. Click on the **Orders** submenu to open the Orders page.
4. **To add a new order:**
 - Click the **+Add Order** button.
 - Fill in all required details, such as Order Date and Time, Vehicle Type, Package Item Size, Pickup Details, Merchant Details, Delivery Address, and Customer Address.
 - Click **Submit** to create the order.
5. **To add a new Merchant (when adding an order):**
 - On the 'Add Order' page, click the **Add Merchant** button.
 - Enter all required merchant details, including their name, contact, address, and delivery mapping options (e.g., single pickup - multiple deliveries).
 - **Save** the merchant information.
6. **To view an existing order's details:**
 - Locate the specific order on the Orders page.
 - In the 'Action' column for that order, click the **View** button (or click the order number).
7. **To edit an existing order:**
 - Locate the specific order on the Orders page.
 - In the 'Action' column for that order, click the **Edit** button.
 - Make your desired changes to the order details (e.g., delivery time, location).
 - Click **Save** to apply your modifications.
8. **To assign an order to a driver:**
 - Locate the specific order on the Orders page.
 - In the 'Action' column, click **Assign Trip** or **Assign Driver**.
 - Select the desired driver and vehicle from the available options.
 - Click **Assign**.

9. To assign multiple orders at once:

- On the Orders page, select the checkboxes next to the orders you wish to assign.
- Click the **Assign Multiple Orders** button (this will appear once multiple orders are selected).
- Follow the prompts to select drivers and vehicles for the bulk assignment.

10. To delete an order:

- Locate the specific order on the Orders page.
- In the 'Action' column, click the **Delete** icon (often a trash can).
- Confirm your decision when prompted.

Key Features You'll Use

- **Effortless Order Creation:** Quickly input and submit new delivery requests with all necessary details.
- **Flexible Order Editing:** Easily modify delivery specifics like dates, times, locations, and even reassign drivers after an order has been created.
- **Smart Driver Assignment:** Assign individual orders or use the bulk assignment feature to optimize routes and balance driver workloads.
- **Real-time Order Tracking:** Monitor the live status and location of your 'In Progress' orders on an interactive map.
- **Comprehensive Reporting & Analytics:** Generate detailed reports (Customer Order Summary, Merchant Order Summary, Load and Unload, Material Collection) to review past performance and gain valuable operational insights.
- **Bulk Data Management:** Save time by importing multiple orders simultaneously using an Excel template.
- **Merchant Management:** Add new merchants and configure complex pickup and delivery scenarios (e.g., single pickup – multiple deliveries, multiple pickups – multiple deliveries).

Common Scenarios

Here are a few real-world examples of how you might use the Orders module:

- **Scenario 1: Adding a New Urgent Delivery**
 - **Your Need:** A customer needs an urgent package delivered by end-of-day.
 - **How you use it:** You click **+Add Order**, fill in all details, making sure to mark it as urgent. The system adds it, ready for priority dispatch.
- **Scenario 2: Correcting a Delivery Location**
 - **Your Need:** A customer calls to say they provided the wrong street number for their delivery.
 - **How you use it:** You find the order, click **Edit** in the Action column, update the Delivery Address field, and **Save** your changes. The driver's route will update automatically.
- **Scenario 3: Driver Reassignment Mid-Delivery**
 - **Your Need:** A driver assigned to an active delivery suddenly has an emergency and cannot complete the route.
 - **How you use it:** You locate the 'In Progress' order, click **Reassign Driver** in the Action column, and select another available driver, ideally one with the least current load. The system updates the assignment seamlessly.
- **Scenario 4: Handling a Failed Delivery**
 - **Your Need:** A delivery attempt failed because the customer wasn't home.

- **How you use it:** You update the order's status to **Failed Delivery**, add a note explaining the reason, and then contact the customer to reschedule.
- **Scenario 5: Preparing for Peak Season (Bulk Operations)**
 - **Your Need:** You anticipate a large volume of orders and want to prepare efficiently.
 - **How you use it:** You use the **Import Data** feature to upload hundreds of orders from an Excel file, then use the **Assign Multiple Orders** button to quickly dispatch them to your fleet, ensuring balanced workloads.

What to Expect

When you use the Orders module, you can expect the following outcomes:

- **Order Creation:** New orders will be successfully created and immediately visible under the "Pending" tab on the Orders page.
- **Order Editing:** After you edit and save an order, its status will automatically update to "In Progress" and you'll find it in the "In Progress" tab.
- **Order Deletion:** Once confirmed, deleted orders are permanently removed from the system and will no longer appear in your lists.
- **Driver Assignment:** When an order is assigned to a driver, its status will automatically change to "In Progress," and the driver will receive instant notification.
- **Data Validation:** The system will prevent you from submitting orders with missing required fields (e.g., pickup location) or invalid data (e.g., incorrect email format, past dates, duplicate order numbers), displaying clear error messages.
- **Reporting Accuracy:** All reports (Customer Order Summary, Merchant Order Summary, Load and Unload, Material Collection) will load correctly and display accurate, up-to-date data. Exports to PDF/Excel will reflect this accuracy.
- **System Performance:** The system is designed to handle a large volume of orders (1000+) efficiently, with pages loading within 3 seconds, even under high demand.

Business Rules & Constraints

The Orders module operates with several built-in rules to ensure efficiency, accuracy, and security:

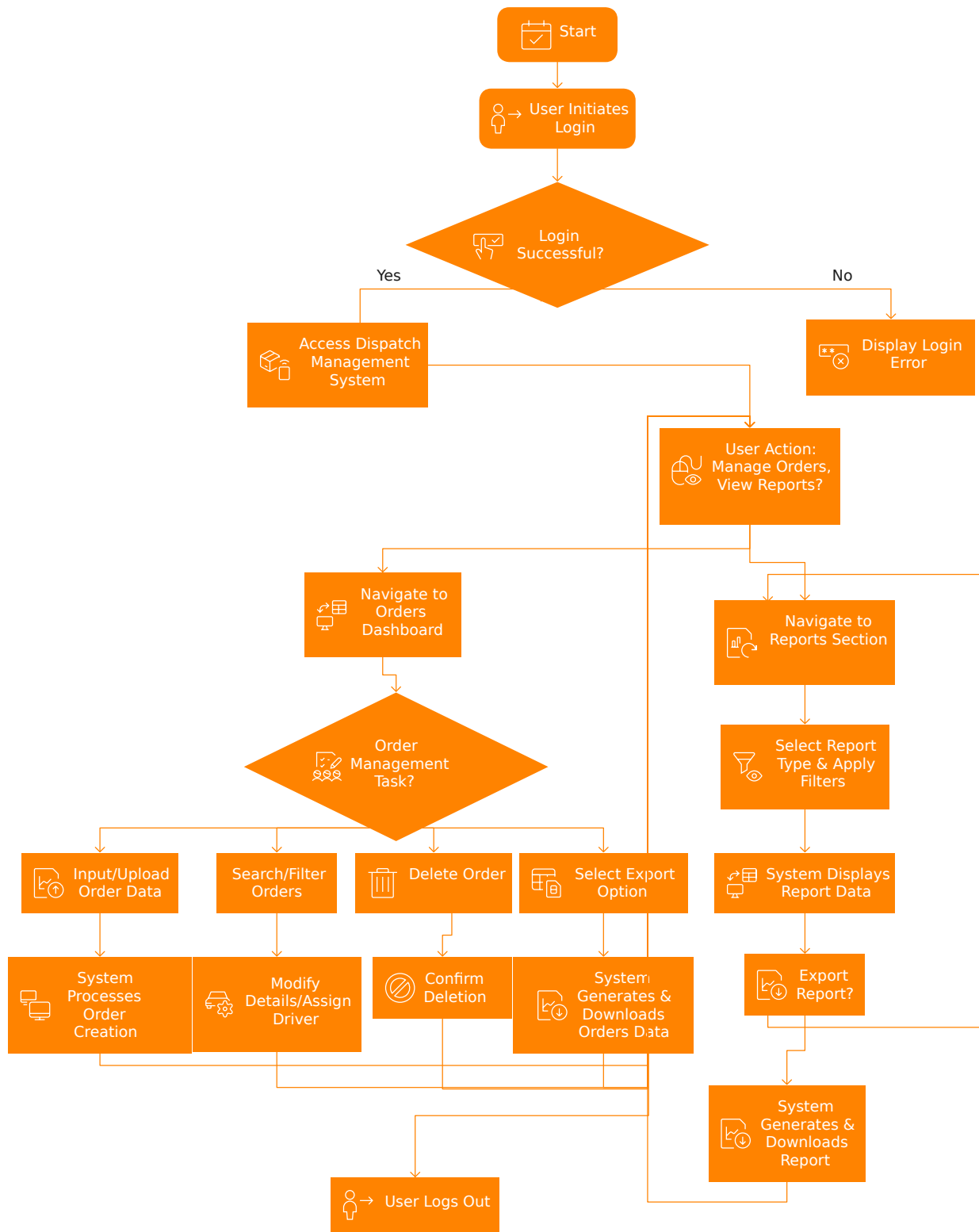
- **No Past Dates for New Orders:** You cannot create a dispatch order with a date or time that has already passed. If you try, the system will display an error: "Order date and time cannot be in the past." However, the system does support scheduling orders for far-future dates.
- **Required Fields for Submission:** Many fields are mandatory. If you leave a required field empty (e.g., the pickup location, or an invalid email format), the system will prevent submission and display a validation message until correct information is provided.
- **Unique Order Numbers:** The system restricts adding new orders with an order number that is already in use, preventing duplicates and data confusion.
- **Auto-Routing Intelligence:**
 - The system only assigns routes to drivers and vehicles that are **available** and capable of fulfilling the delivery.
 - It intelligently identifies and **skips orders that are already assigned** or manually locked, ensuring ongoing deliveries are not interrupted.
 - The system can manage and assign orders requiring **different vehicle types** (e.g., bikes, trucks).
 - It **prioritizes high-priority orders** for earlier delivery when calculating routes.
 - If no suitable vehicles are available, the order is placed on hold with a warning until a vehicle becomes free.
 - If an order has **incorrect or missing location details**, it will be flagged or skipped to maintain routing efficiency.

- In case of **mapping service issues**, the system is resilient; it records the failure, skips affected orders, and continues processing others without crashing.
 - **Drivers receive instant notifications** when their routes are automatically assigned or updated.
 - The system prevents **duplicate route assignments** for the same order within a routing cycle.
 - It can **optimize routes for orders with multiple delivery stops**, combining all destinations into one efficient path.
 - **Authorization for Route Assignment:** Only authorized users with specific permissions can manually assign routes, maintaining security and operational integrity.
 - **Data Protection:** Sensitive driver and vehicle information is automatically masked when assignment activity is recorded, ensuring confidentiality.
 - **Performance Reliability:** The system is designed for high performance, processing hundreds or thousands of orders efficiently even during peak times, without delays or crashes. The order export function is also reliable, completing without errors even with large datasets.
 - **Browser and Device Compatibility:** The Orders page is fully functional and responsive on various web browsers (Chrome, Firefox, Edge) and mobile devices.
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4. Visual Elements & Supporting Information

Below is the overall workflow for the Orders module:

Orders Management Flowchart



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Order Status

▼

Export

Showing 1 - 10 of 200

This page provides a comprehensive overview of all your orders. You can search, filter, and review the status of various delivery requests.

Field Validation Table (Search and Filter)

Field Name	Mandatory	Field Type	Data Type	Field Size	Is Editable	Description
Search (Order No./Cust. Name)	No	Text Input	String	Varies	Yes	Quickly find orders by number or customer name.
Status Filter	No	Dropdown	String	N/A	Yes	Filter orders by their current status (e.g., Pending, In Progress, Completed).
Drop Location Filter	No	Text Input	String	Varies	Yes	Prioritize or view orders based on delivery location.

Edit Order

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Update Order

Date

Select Date Range...

Time

--:-- --

Vehicle Type

Choose Vehicle Type...

Number of Goods (Optional)

Select Transportation Type...

Select The Size of Package Item

Weight of Goods(Optional)

Enter Merchant...

length (cm)(Optional)

Enter Warehouse...

Width (cm)(Optional)

Enter Pickup Address...

Height (cm) (Optional)

Enter Pickup Address...

Types Of Goods (Optional)

Enter Pickup Address...

Use Default Address

This screen allows you to modify the details of an existing order. All changes saved here will update the order's status to "In Progress."

Field Validation Table

Field Name	Mandatory	Field Type	Data Type	Field Size	Is Editable	Description
Order Date	Yes	Date Picker	Date	N/A	Yes	The scheduled date for the order pickup/delivery.
Order Time	Yes	Time Picker	Time	N/A	Yes	The scheduled time for the order pickup/delivery.
Vehicle Type	Yes	Dropdown	String	N/A	Yes	The type of vehicle required for the delivery.
Size of Package Item	Yes	Text Input/Dropdown	String	Varies	Yes	Description or size specification of the item.
Pickup Details	Yes	Text Area / Map Search	String	Long	Yes	Full address and contact for the pickup location.
Merchant Details	Yes	Dropdown/Text Input	String	Varies	Yes	The associated merchant for this order.
Delivery Address	Yes	Text Area / Map Search	String	Long	Yes	Full address and contact for the delivery location.
Customer Address	Yes	Text Area / Map Search	String	Long	Yes	Customer's detailed address for the delivery.
Status	Yes	Dropdown	String	N/A	Yes	The current status of the order (e.g., Pending, In Progress, Completed).

View Order Details

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Order Summary

Assign Trip

Pick-Up Location
Chala, Thiruvananthapuram - 695001, Kerala, I...
Ordered On 22-01-2023, 04:04:58 AM

Current Location
Chala, Thiruvananthapuram - 695001, Kerala, I...
Reached, 25-01-2023

Current Location
Chala, Thiruvananthapuram - 695001, Kerala, I...
Reached, 25-01-2023

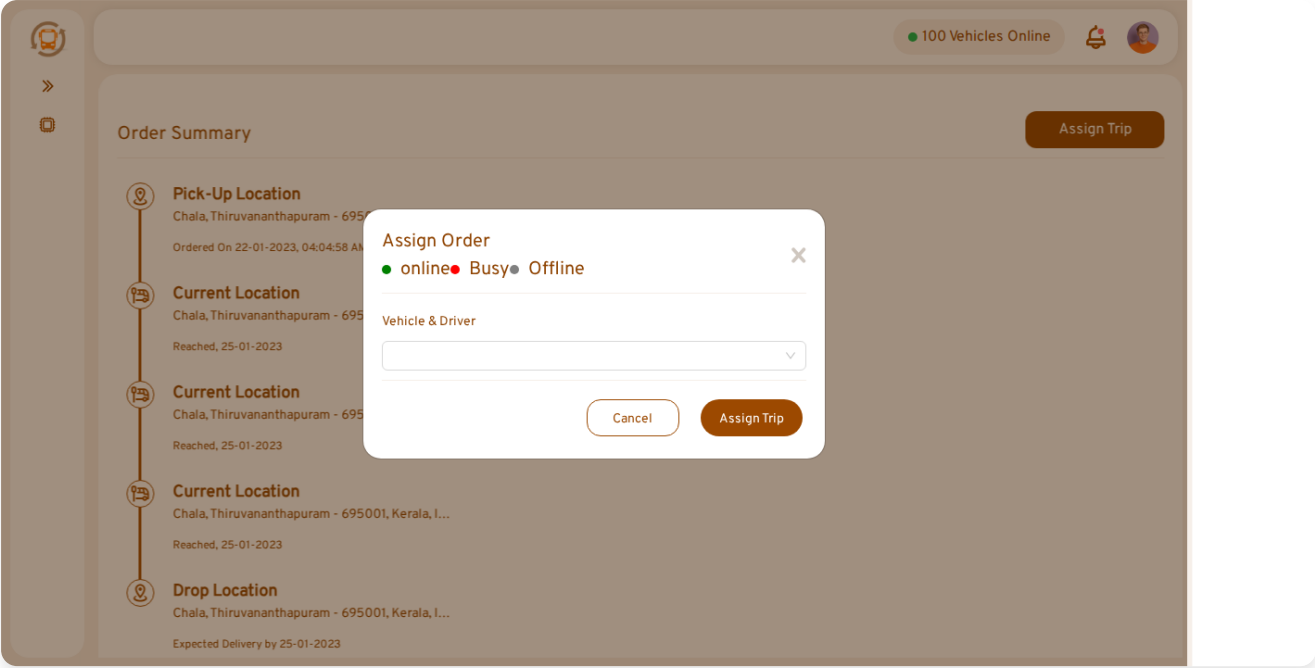
Current Location
Chala, Thiruvananthapuram - 695001, Kerala, I...
Reached, 25-01-2023

Drop Location
Chala, Thiruvananthapuram - 695001, Kerala, I...
Expected Delivery by 25-01-2023

This page displays all the comprehensive details of a specific order in a read-only format. It ensures you have all the necessary information at a glance without the risk of accidental changes.

(This page does not contain input forms for data entry.)

Assign Order



This screen is where you assign an order to a specific driver and vehicle. This is a critical step in dispatching the order.

Field Validation Table

Field Name	Mandatory	Field Type	Data Type	Field Size	Is Editable	Description
Driver	Yes	Dropdown	String	N/A	Yes	Select the driver responsible for the delivery.
Vehicle	Yes	Dropdown	String	N/A	Yes	Select the vehicle to be used for the delivery.

Add New Order



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Add Order

Date

Select Date Range...

Time

--:--:--

Vehicle Type

Choose Vehicle Type...

Transportation Type

Select Transportation Type...

Pick-Up Details

Use Default Address

Merchant

Enter Merchant...

Warehouse

Enter Warehouse...

Pickup Address

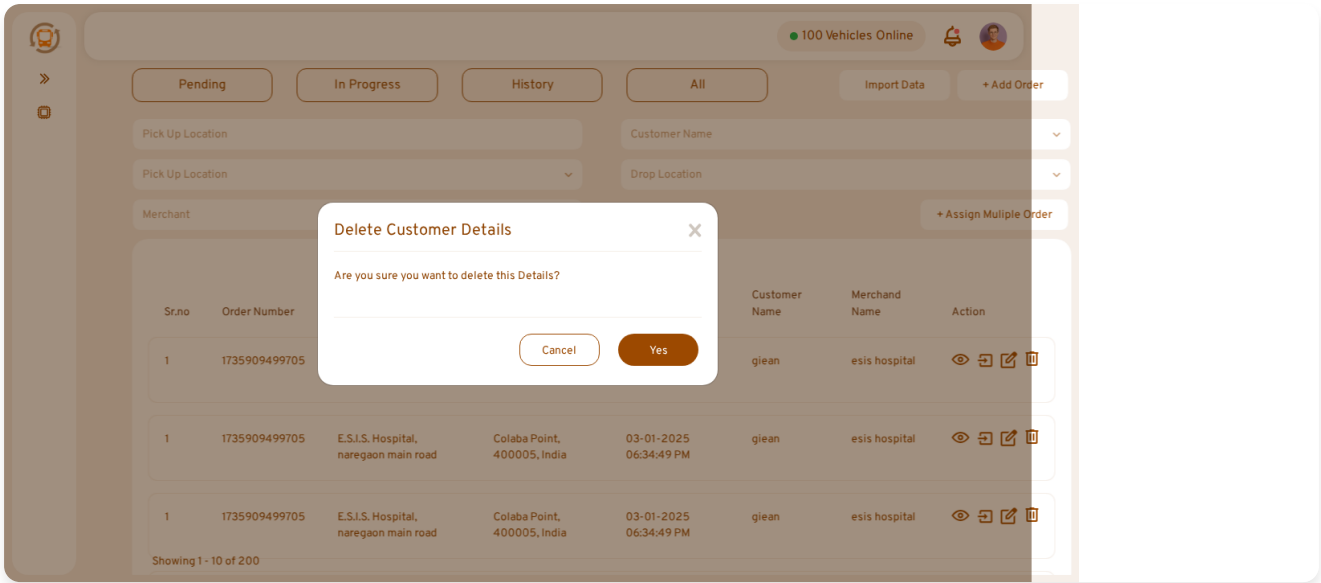
Enter Pickup Address...

Use this screen to create a brand new delivery order. You'll enter all the necessary information to initiate the dispatch process.

Field Validation Table

Field Name	Mandatory	Field Type	Data Type	Field Size	Is Editable	Description
Order Date	Yes	Date Picker	Date	N/A	Yes	The scheduled date for the order pickup/delivery.
Order Time	Yes	Time Picker	Time	N/A	Yes	The scheduled time for the order pickup/delivery.
Vehicle Type	Yes	Dropdown	String	N/A	Yes	The type of vehicle required for the delivery.
Size of Package Item	Yes	Text Input/Dropdown	String	Varies	Yes	Description or size specification of the item.
Pickup Details	Yes	Text Area / Map Search	String	Long	Yes	Full address and contact for the pickup location.
Merchant Details	Yes	Dropdown/Text Input	String	Varies	Yes	The associated merchant for this order.
Delivery Address	Yes	Text Area / Map Search	String	Long	Yes	Full address and contact for the delivery location.
Customer Address	Yes	Text Area / Map Search	String	Long	Yes	Customer's detailed address for the delivery.

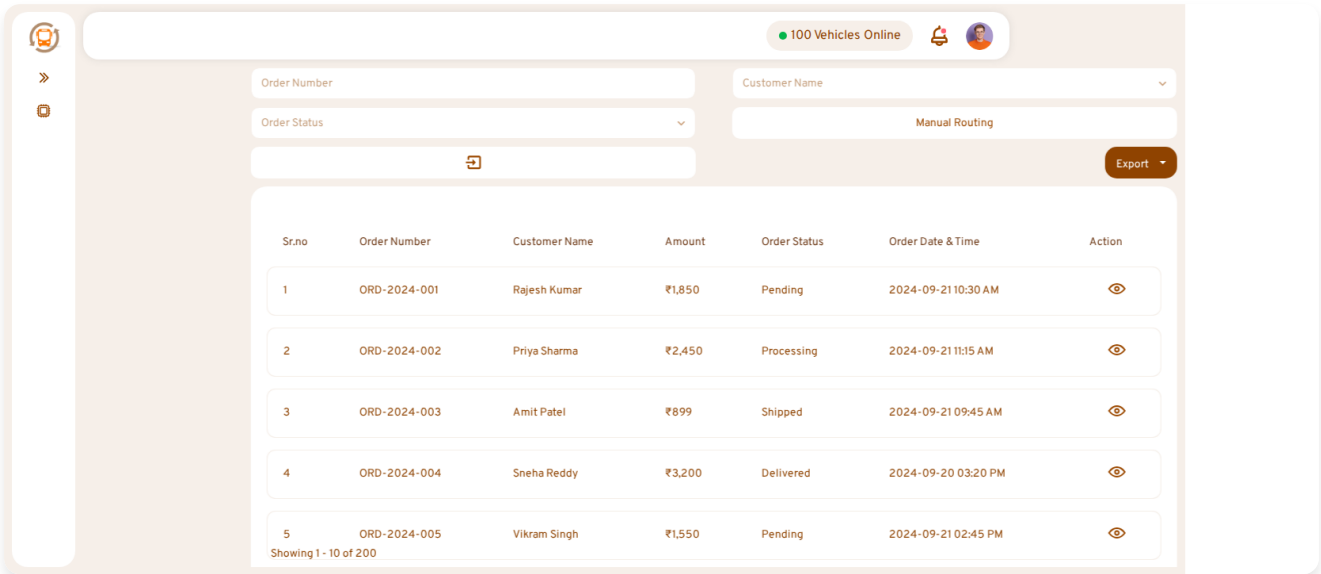
Delete Order



This page confirms your intention to delete a selected order. Once confirmed, the order will be permanently removed from the system. Note that if you click on the "Delete" button from the main orders list, it might first open a view of the order details before prompting for final confirmation, allowing for a thorough review before deletion.

(This page does not contain input forms for data entry, but usually a confirmation button or dialog.)

Submit Merchant Details



This screen allows you to add or update merchant details, which are crucial for associating orders with the correct sender.

Field Validation Table

Field Name	Mandatory	Field Type	Data Type	Field Size	Is Editable	Description
Merchant Name	Yes	Text Input	String	Varies	Yes	The official name of the merchant.
Merchant Contact	Yes	Text Input (Phone/Email)	String	Varies	Yes	Contact information for the merchant.
Merchant Address	Yes	Text Area / Map Search	String	Long	Yes	The primary address of the merchant.
Mapping Options	Yes	Radio Buttons / Checkboxes	Enum	N/A	Yes	Define how deliveries are mapped (e.g., Single Pickup – Single Delivery, Multiple Pickup – Multiple Deliveries).

5. Summary & Benefits

The **Orders** module is more than just a list of deliveries; it's a powerful command center designed to give you complete oversight and control over your dispatch operations. By centralizing order management, enabling real-time tracking, and providing flexible tools for assignment and updates, it directly supports your goals of:

- **Achieving Faster Deliveries:** Streamlined processes and optimized routing help get packages to their destination quicker.
- **Reducing Operational Costs:** Efficient driver assignment and bulk actions save time and resources.
- **Enhancing Customer Satisfaction:** Timely, accurate deliveries and clear communication build trust and loyalty.
- **Making Informed Decisions:** Comprehensive reports provide the data you need to continuously improve your delivery performance.

With the **Orders** module, you're not just managing logistics; you're building a more efficient, reliable, and responsive delivery service that truly benefits your business and your customers.