

# FUNCTIONAL REQUIREMENTS

## 1. Order Creation and Management

- The system should allow staff to create customer orders by selecting products, quantities, and applying discounts if applicable.
- Orders should support both in-store purchases and delivery orders.

## 2. Billing and Invoice Generation

- The system should automatically generate bills with item-wise prices, taxes, and final payable amount.
- After successful payment, a finalized invoice and receipt should be generated.

## 3. Payment Processing

- The system should support multiple payment options such as cash, UPI, cards and wallets.
- It should record payment status (successful, failed, pending) for each order.

## 4. Inventory Monitoring and Updates

- The system should maintain real-time stock levels for each inventory item.
- Stock should automatically reduce after a sale and increase after goods receipt.

## 5. Reorder and Supplier Management

- The system should notify when stock falls below the reorder level.
- It should support creation and tracking of purchase orders to suppliers.

## 6. Delivery Order Processing

- The system should allow marking orders for home delivery.
- Delivery status should be updated from dispatch to completion.

# **NON-FUNCTIONAL REQUIREMENTS**

## **1. Usability**

- The system should be simple and easy to use by shop staff with minimal technical training.
- Common operations like billing and stock updates should require minimal steps.

## **2. Performance**

- Order creation, billing, and payment confirmation should be processed with minimal delay, especially during peak hours.
- Inventory updates should reflect immediately after a transaction.

## **3. Reliability**

- The system should not lose order, payment, or inventory data in case of failures.
- Transactions should be consistent and recoverable.

## **4. Scalability**

- The system should handle increasing product range, customers, and transactions as the business grows.
- It should support future expansion to multiple branches or warehouses.

## **5. Security**

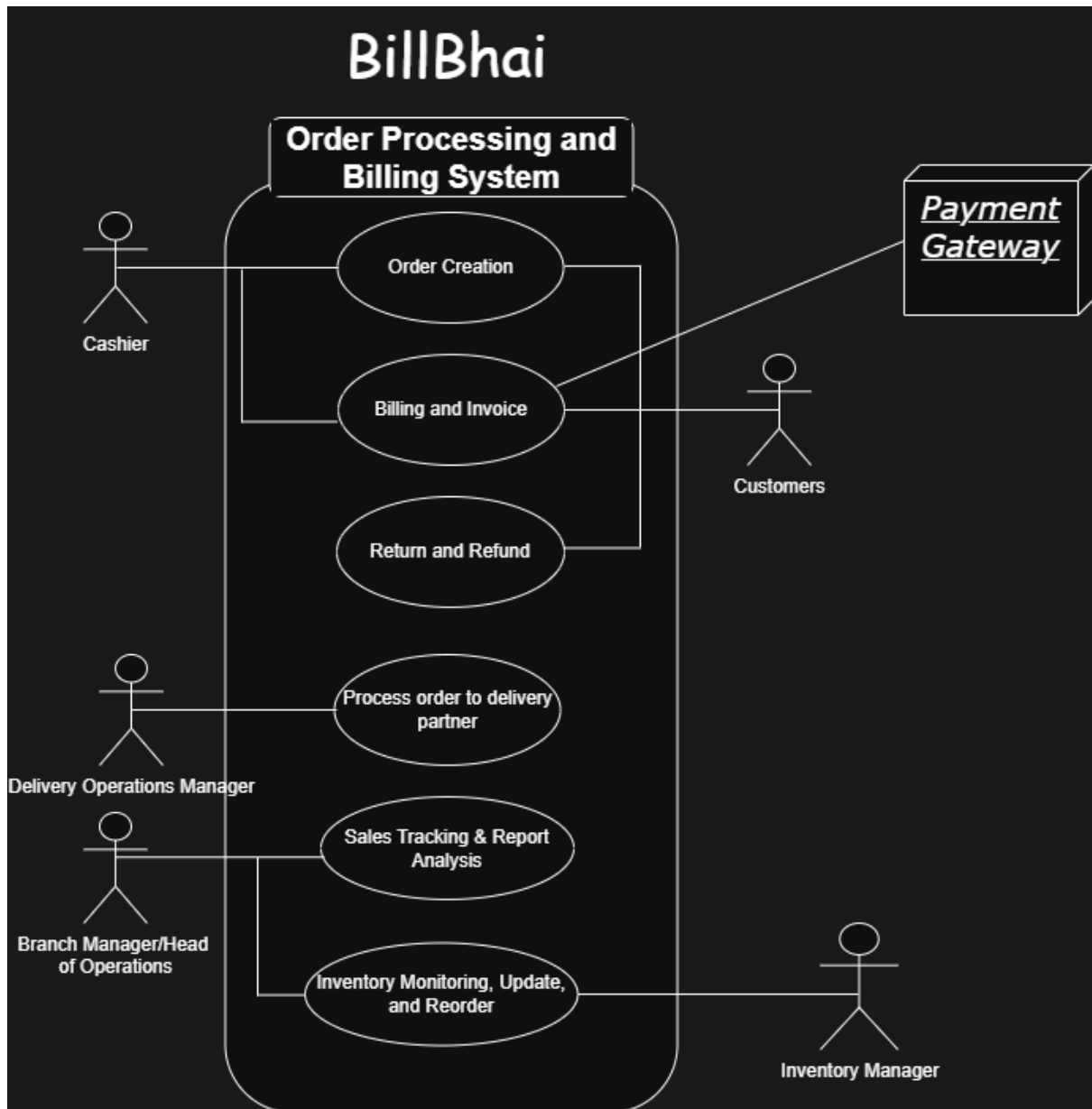
- Sensitive data such as payment details and invoices should be protected from unauthorized access.
- Only authorized users should be allowed to perform critical operations like stock adjustment.

## **6. Auditability and Traceability**

- The system should maintain logs for key actions such as stock adjustments, order cancellations, and refunds.
- This supports accountability and issue resolution.

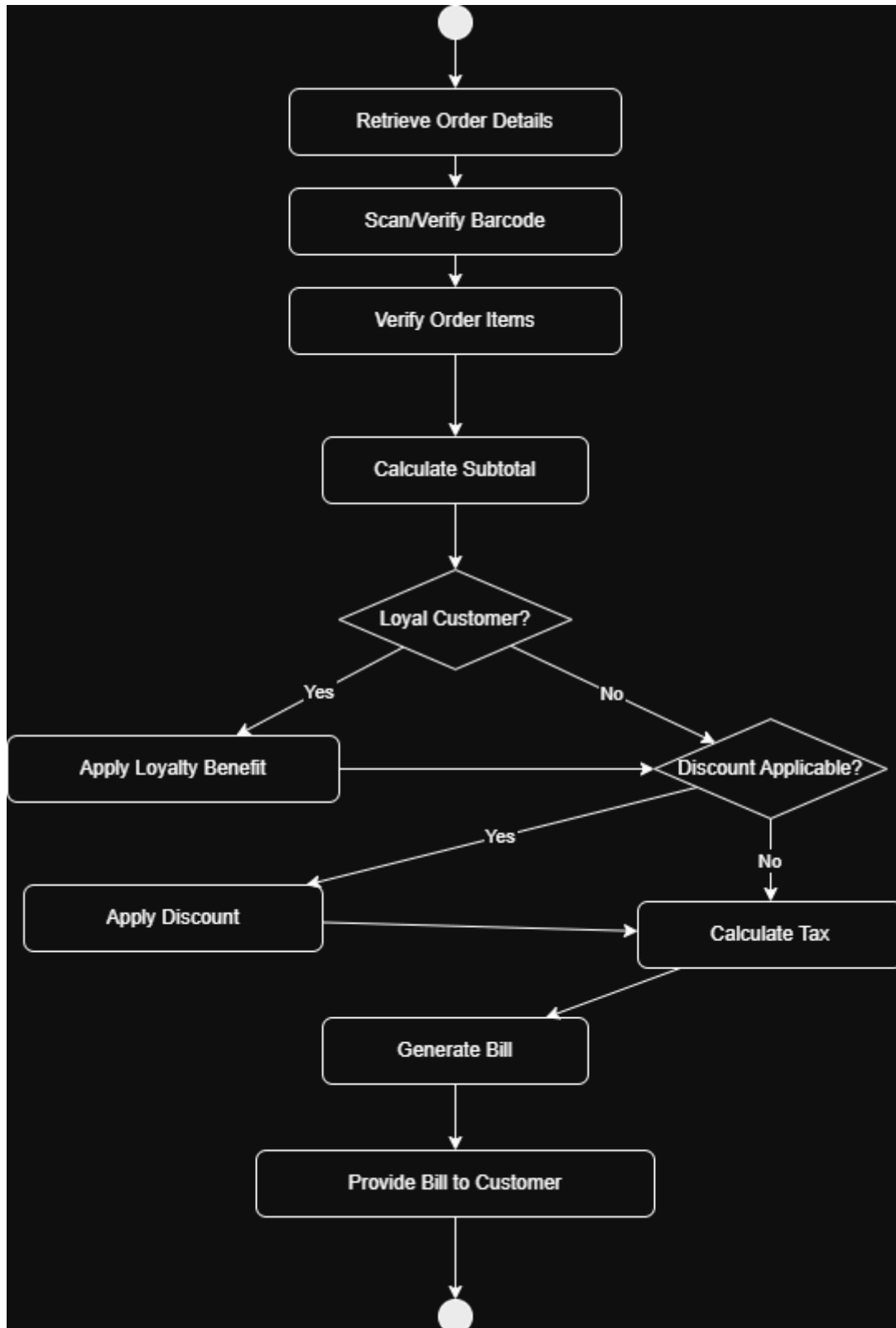
# UML Diagrams

## 1. Use Case Diagram

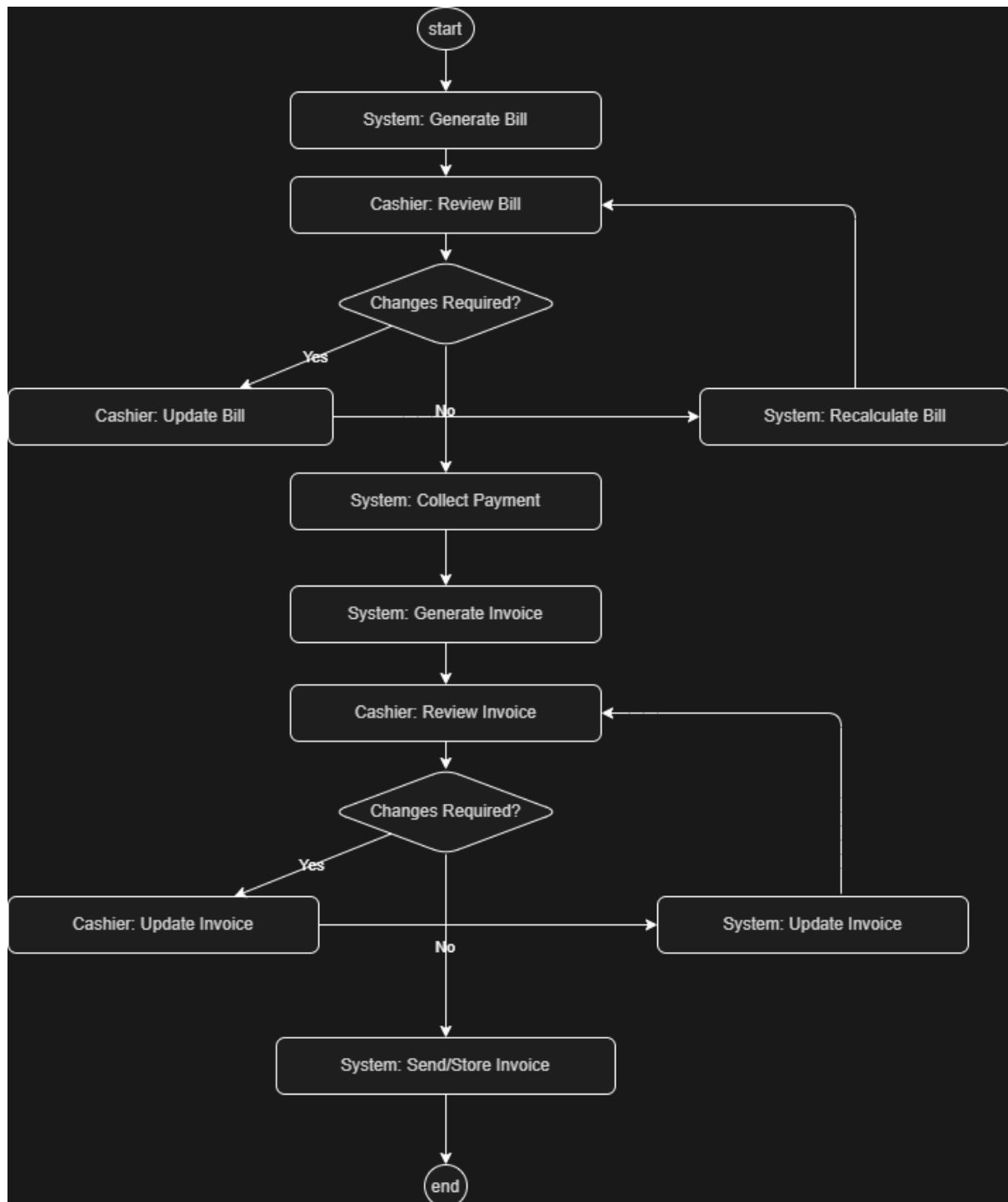


## 2. Activity Diagrams

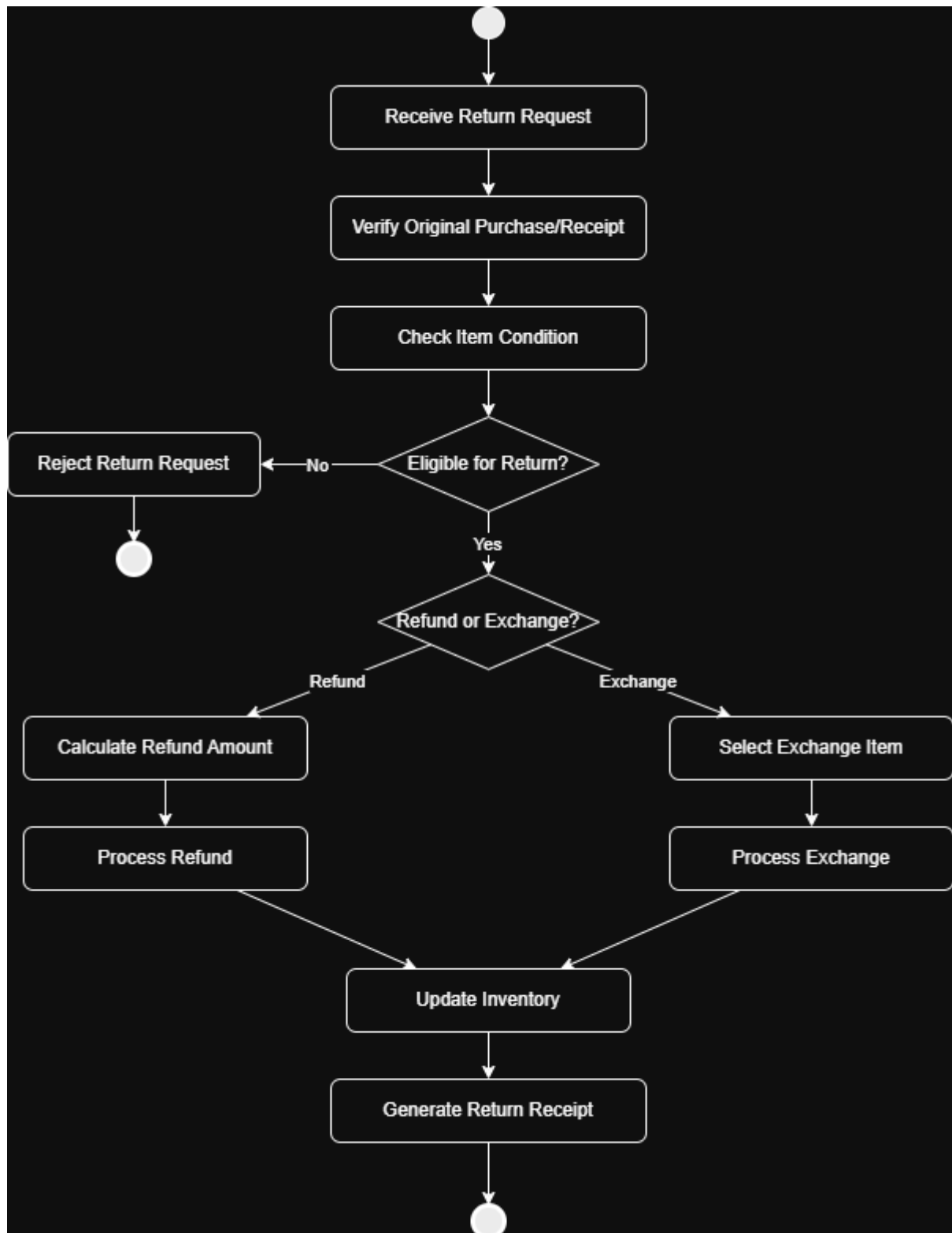
### i. Order Creation



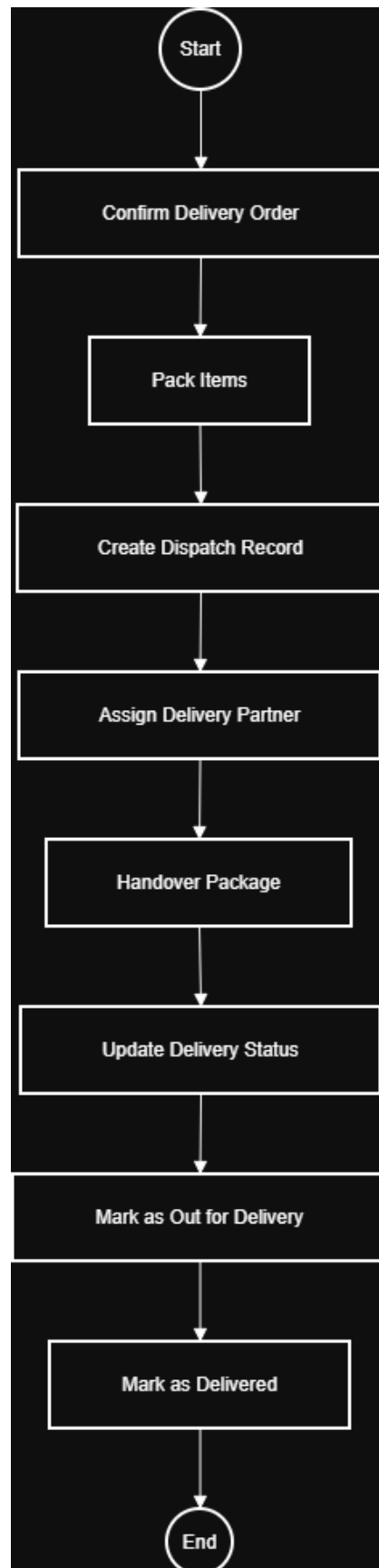
## ii. Billing and Invoice



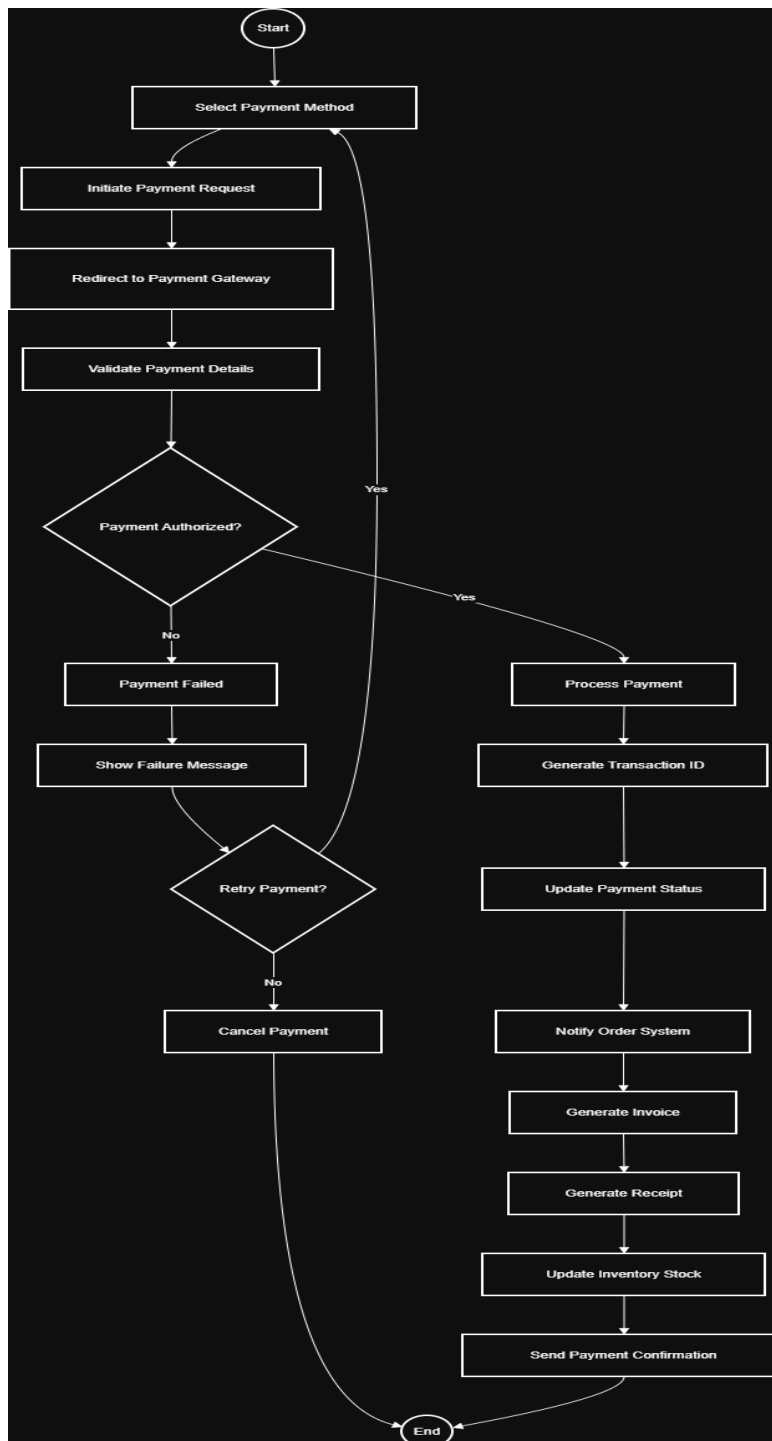
### iii. Return Item Processing



#### iv. Delivery Partner

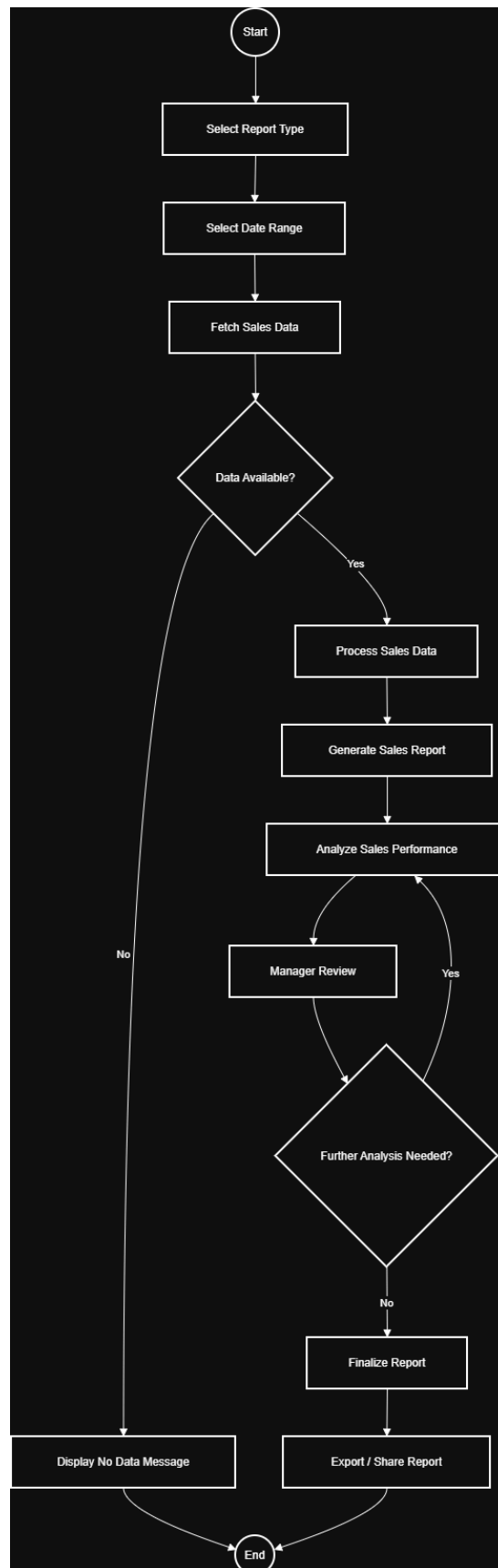


## v. Payment Gateway

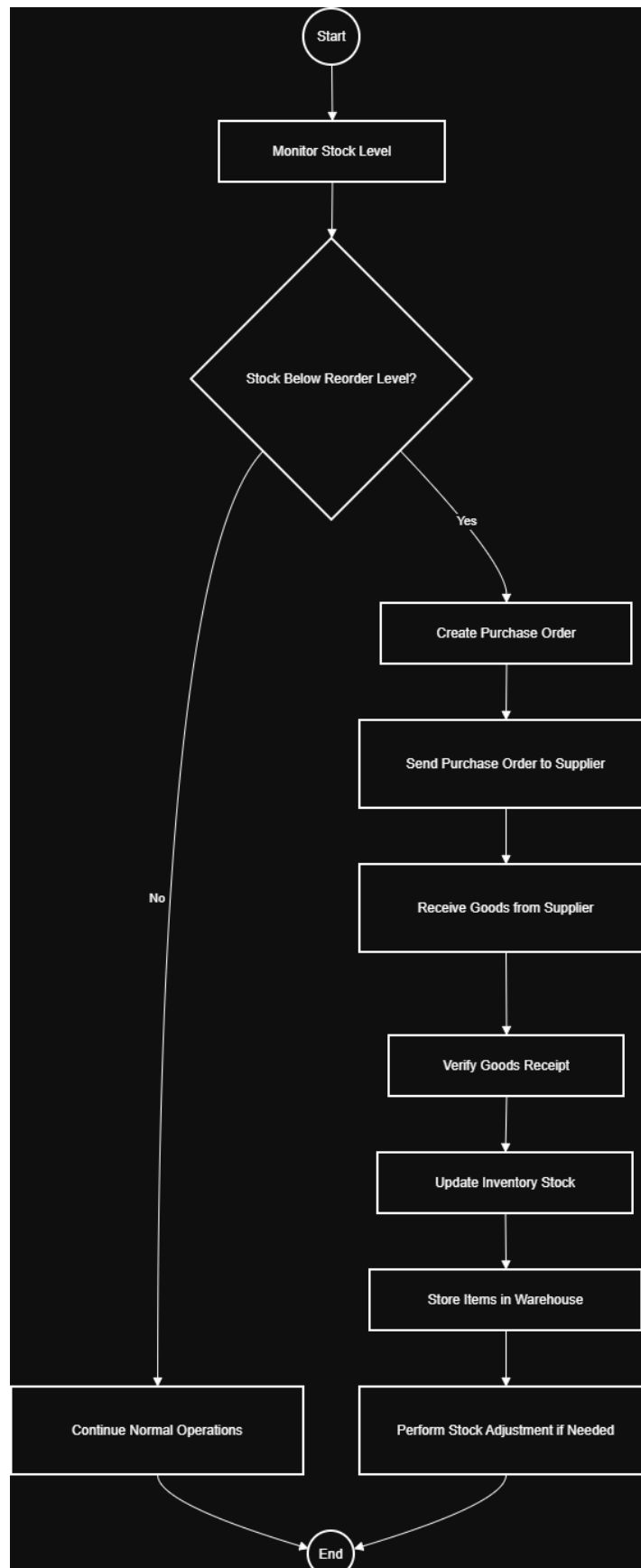




## vi. Sales T & Report A



## vii. Inventory Monitoring



### 3. Sequence Diagram

