



Enterprise Resource Planning

# Complete System Flow Document

End-to-end flow diagrams for all modules in the 2XG ERP system. Purchase, Sales, Inventory, Expenses, Logistics, POS, and CRM.

Version 1.0 | February 2026

28 API Routes | 48 Pages | 55 Components

React + Express + Supabase (PostgreSQL)

## 1. Master System Overview

All modules and how they connect to each other in the 2XG ERP system.

### 2XG ERP - COMPLETE MODULE MAP



## 2. Purchase Flow (Complete)

PURCHASE MODULE

The full purchase cycle from item selection to final payment and ledger entry.

### PURCHASE FLOW – STEP BY STEP

#### STEP 1: ITEM

Item Master	Select items to purchase from the item catalog. Items drive the PO line items.
SKU, Name, Cost Price, Stock, UOM, Category	



#### STEP 2: PURCHASE ORDER (PO)

Purchase Order	PO# auto-generated (PO-00001)
PO#, Date, Items,	Links to a Vendor
GST (CGST/SGST/IGST),	Contains line items with qty, rate
TDS/TCS, Discount,	Calculates subtotal, tax, total
Total Amount	



#### Vendor Master

supplier_name	Vendor name, contact,
email, phone	email, phone, city, state, payment terms

#### STEP 3: BILL

Bill	Created against a PO
Bill#, Bill Date,	Records vendor's invoice
Due Date, Items,	Tracks payment status:
GST, TCS/TDS,	paid / partial / unpaid
Total, Payment Status	



#### Vendor Credit

(CN)	Credit note from vendor for returns/ discounts.
Reduces payable	Reduces amount owed to vendor.

#### STEP 4: PAYMENT MADE

Payment Made	Actual payment to vendor
Payment#, Date,	Can apply vendor credit
Amount, Mode,	Links to Bill(s)
Reference, Vendor	Modes: Cash/UPI/Bank/Cheque



#### STEP 5: LEDGER

Ledger Account	Final record of all purchase transactions per vendor
All transactions	

**PO STATUS FLOW:**  
**draft** → **sent** → **received** → **closed**

### Purchase Module Pages & APIs

PAGE / COMPONENT	API ENDPOINT	PURPOSE
PurchaseOrderPage	GET /api/purchase-orders	List all POs
PurchaseOrderDetailPage	GET /api/purchase-orders/:id	View PO with items
NewPurchaseOrderForm	POST /api/purchase-orders	Create new PO
NewPurchaseOrderForm (edit)	PUT /api/purchase-orders/:id	Edit existing PO
BillsPage	GET /api/bills	List all bills
BillDetailPage	GET /api/bills/:id	View bill details
NewBillForm	POST /api/bills	Create bill against PO
PaymentMadePage	GET /api/payments	List payments to vendors
NewPaymentForm	POST /api/payments	Record payment
VendorCreditsPage	GET /api/vendor-credits	List vendor credit notes
NewVendorCreditForm	POST /api/vendor-credits	Create credit note
VendorManagementPage	GET /api/vendors	Manage vendor master

### 3. Sales Flow (Complete)

SALES MODULE

The full sales cycle from customer selection to payment receipt, invoicing, and delivery.

#### SALES FLOW – STEP BY STEP

##### STEP 1: CUSTOMER

Customer Master	customer_name, company,
Name, Email, Phone,	GSTIN, PAN, billing &
GSTIN, Billing Address,	shipping addresses.
Shipping Address	



##### STEP 2: SALES ORDER (SO)

Sales Order	SO# auto-generated
SO#, Date, Customer,	Select <b>Items</b> from catalog
Items, Qty, Rate,	with qty and rate.
GST, Discount, Total	Calculates totals with GST.



##### STEP 3: INVOICE

##### STEP 3B: DELIVERY CHALLAN

Invoice	Delivery Challan
Invoice#, Date,	DC#, Date, Items,
Customer, Items,	SO Reference,
GST, TCS/TDS,	Delivery Status
Payment Status	



##### STEP 4: PAYMENT RECEIVED

Payment Received	Payment from customer
Payment#, Date,	against invoice(s).
Amount, Mode,	Modes: Cash/UPI/Bank/Cheque
Customer, Invoice Ref	Updates invoice payment status.

SO STATUS: **draft** → **confirmed** → **delivered** → **closed**

INVOICE STATUS: **unpaid** → **partial** → **paid**

DC STATUS: **draft** → **in\_transit** → **delivered**

#### Sales Module Pages & APIs

PAGE / COMPONENT	API ENDPOINT	PURPOSE
SalesOrdersPage	GET /api/sales-orders	List all SOs
SalesOrderDetailPage	GET /api/sales-orders/:id	View SO with items
NewSalesOrderForm	POST /api/sales-orders	Create new SO
InvoicesPage	GET /api/invoices	List all invoices
InvoiceDetailPage	GET /api/invoices/:id	View invoice details
NewInvoiceForm	POST /api/invoices	Create invoice
PaymentsReceivedPage	GET /api/payments-received	List payments from customers

NewPaymentReceivedForm	POST /api/payments-received	Record customer payment
DeliveryChallansPage	GET /api/delivery-challans	List delivery challans
DeliveryChallanDetailPage	GET /api/delivery-challans/:id	View DC details
CustomerManagementPage	GET /api/customers	Manage customer master

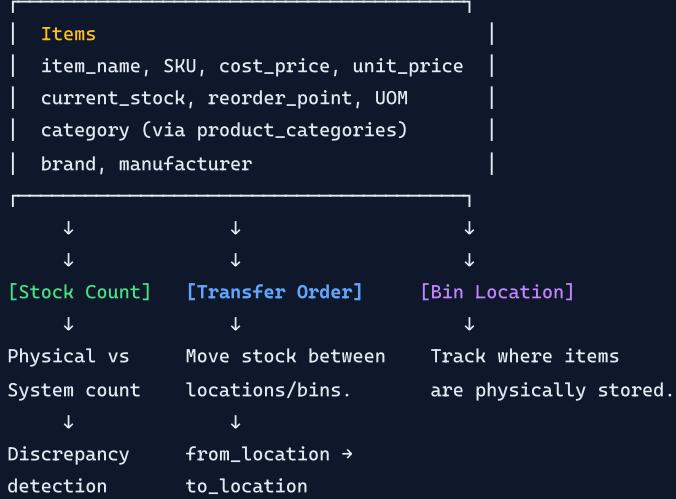
## 4. Inventory Flow

### INVENTORY MODULE

Item management, stock counting, transfers, and bin locations.

#### INVENTORY FLOW

**ITEM MASTER** (Central to everything)



#### ITEM CONNECTIONS TO OTHER MODULES:

- [Item] → used in → [Purchase Order Items] (what to buy)
- [Item] → used in → [Sales Order Items] (what to sell)
- [Item] → used in → [Invoice Items] (what was invoiced)
- [Item] → used in → [Bill Items] (what was billed)
- [Item] → used in → [POS Sale Items] (quick sale)
- [Item] → used in → [DC Items] (what was delivered)
- [Item] → used in → [Transfer Order Items] (what was moved)

#### STOCK COUNT FLOW:

Create Count → Physical Verification → Compare → Approve

#### Inventory Module Pages & APIs

PAGE / COMPONENT	API ENDPOINT	PURPOSE
ItemsPage	GET /api/items	List all items
ItemDetailPage	GET /api/items/:id	View item details
NewItemForm	POST /api/items	Create new item
NewItemForm (edit)	PUT /api/items/:id	Edit item
StockCountPage	GET /api/items/stock-counts	List stock counts
NewStockCountPage	POST /api/items/stock-counts	Create stock count
TransferOrdersPage	GET /api/transfer-orders	List transfers
NewTransferOrderForm	POST /api/transfer-orders	Create transfer
BinLocationsPage	GET /api/bin-locations	Manage bin locations
BrandManufacturerPage	GET /api/brands, /api/manufacturers	Manage brands & manufacturers

## 5. Expense Flow

EXPENSE MODULE

## EXPENSE FLOW

[Expense Category] ← Manage categories (add/delete)

↓

[New Expense]

Category, Item/Description	
Amount, Payment Mode	
Date, Branch, Paid By	
Voucher Upload (image/PDF)	

↓

[Approval Workflow]

Pending → Approved / Rejected

↓

Auto-approved if amount ≤ 2000 INR

PAYMENT MODES: Cash | UPI | Debit Card | Credit Card | Bank Transfer

## 6. POS Flow

POINT OF SALE

## POS FLOW

[Open POS Session]

↓

[Select Items] → Search catalog, add to cart

↓

[Apply Discounts] → Per-item or overall

↓

[Collect Payment] → Cash / UPI / Card

↓

[Generate Receipt]

↓

[Close Session] → Session summary (total sales, items sold)

## 7. CRM & CARE Flows

CRM / SALES PIPELINE

CARE MODULE

## CRM FLOW

[Lead Capture]

↓

[Lead Qualification]

↓

[Pipeline Stage]

New → Contacted →

## CARE FLOW

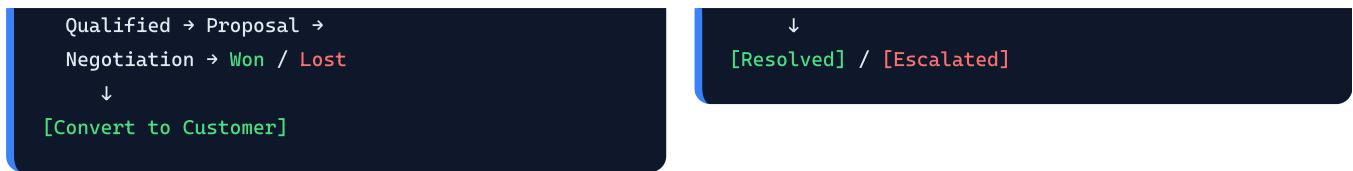
[Service Ticket]

↓

[Assign Agent]

↓

[In Progress]



## 8. Sidebar Navigation Map

How every module connects through the sidebar navigation.

### SIDE BAR NAVIGATION STRUCTURE

#### ITEMS (Inventory)

- └ Items → /items
- └ Stock Count → /items/stock-count
- └ Bin Locations → /items/bin-locations
- └ Transfer Orders → /inventory/transfer-orders
- ├ New Category → /items/new-category

#### PURCHASE

- └ Vendor Management → /vendor-management
- └ Purchase Orders → /purchase-orders
- └ Bills → /purchases/bills
- └ Payment Made → /purchases/payments-made
- └ Vendor Credits → /purchases/vendor-credits
- ├ Ledger Account → /purchases/ledger-account

#### SALES

- └ POS → /sales/pos
- └ Customers → /sales/customers
- └ Sales Orders → /sales/sales-orders
- └ Invoices → /sales/invoices
- ├ Payment Received → /sales/payment-received

#### LOGISTICS

- └ Create Delivery Challan → /logistics/create-delivery-challan
- └ Delivery Challan → /logistics/delivery-challan
- ├ Pending Delivery → (coming soon)

#### OTHER

- └ 2XG CARE → /care
- └ Expenses → /expenses
- └ Workchat → /tasks
- └ 2XG Earn → (coming soon)
- └ Reports → /reports
- └ Search → /search
- └ Sales Pipeline → /crm
- └ AI Advanced Reporting → /ai-reporting
- ├ Settings → /settings

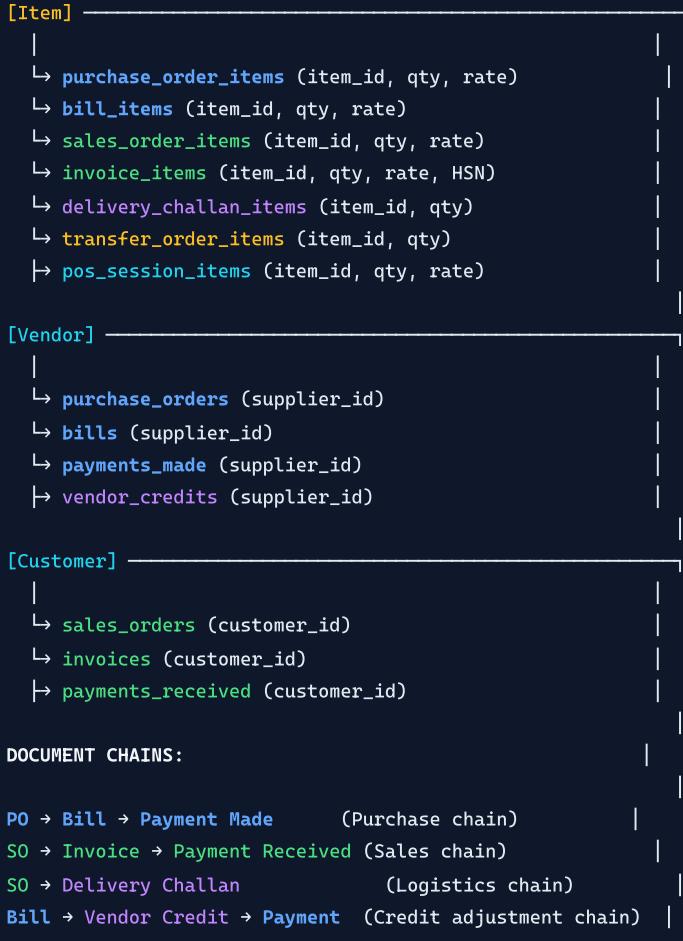
## 9. Complete API Map (28 Route Prefixes)

#	ROUTE PREFIX	KEY ENDPOINTS	MODULE
1	/api/auth	login, verify, register, change-password, users	Auth
2	/api/mobile-auth	login (phone+PIN), verify	Mobile Auth
3	/api/erp	dashboard metrics	Dashboard
4	/api/items	CRUD, generate-sku, stock-counts, import	Items
5	/api/vendors	CRUD, search	Vendors
6	/api/customers	CRUD, search	Customers
7	/api/purchase-orders	CRUD, generate-po-number, summary	Purchase
8	/api/bills	CRUD, summary	Purchase
9	/api/payments	CRUD, summary	Purchase
10	/api/vendor-credits	CRUD	Purchase
11	/api/purchases	overview, summary	Purchase
12	/api/sales	overview, summary	Sales
13	/api/sales-orders	CRUD, generate-so-number	Sales
14	/api/invoices	CRUD, generate-invoice-number	Sales
15	/api/payments-received	CRUD	Sales
16	/api/delivery-challans	CRUD, generate-dc-number	Logistics
17	/api/transfer-orders	CRUD	Inventory
18	/api/bin-locations	CRUD	Inventory
19	/api/brands	CRUD, bulk-create	Inventory
20	/api/manufacturers	CRUD	Inventory
21	/api/expenses	CRUD, categories, summary, by-category	Expenses
22	/api/tasks	CRUD	Workchat
23	/api/reports	dashboard, category-sales, overdue	Reports
24	/api/search	global search	Search
25	/api/ai	insights, analytics	AI
26	/api/crm	leads, pipeline	CRM
27	/api/logistics	overview	Logistics
28	/api/pos-sessions	CRUD, session management	POS

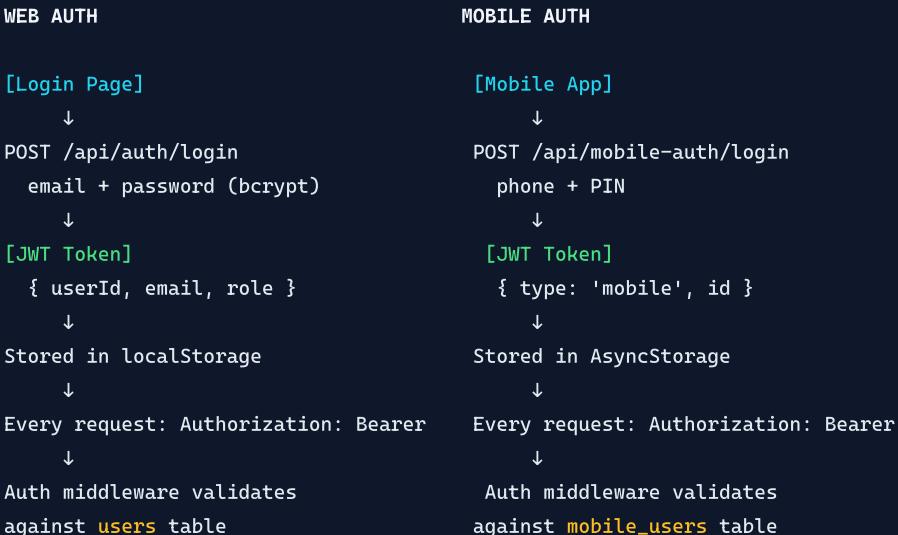
## 10. Cross-Module Connection Map

How every entity relates to other entities across the system.

### ENTITY RELATIONSHIP MAP



## Authentication Flow



## Data Flow (Request Lifecycle)

### REQUEST LIFECYCLE

```
User Click → React Component → Frontend Service (axios)
          ↓
          HTTP Request + JWT Header
          ↓
          Express Route → Auth Middleware
          ↓
          Controller → Service
          ↓
          Supabase Client (PostgREST)
          ↓
          PostgreSQL
          ↓
          Response: { success, data, error }
```



Enterprise Resource Planning

## Complete System Flow Document

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**7 Module Flows** documented

28 API Routes | 48 Pages | 55 Components

Purchase | Sales | Inventory | Expenses | Logistics | POS | CRM

Prepared for 2XG Growth | February 2026