



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.



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
SKU, Name, Cost Price,	from the item catalog.
Stock, UOM, Category	Items drive the PO line items.

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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	

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Vendor Master	Vendor name, contact,
supplier_name	email, phone, city,
email, phone	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	

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Vendor Credit	Credit note from vendor
(CN)	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

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STEP 5: LEDGER

Ledger Account	Final record of all
All transactions	purchase transactions
per vendor	for accounting/reporting.

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 Module Pages & APIs

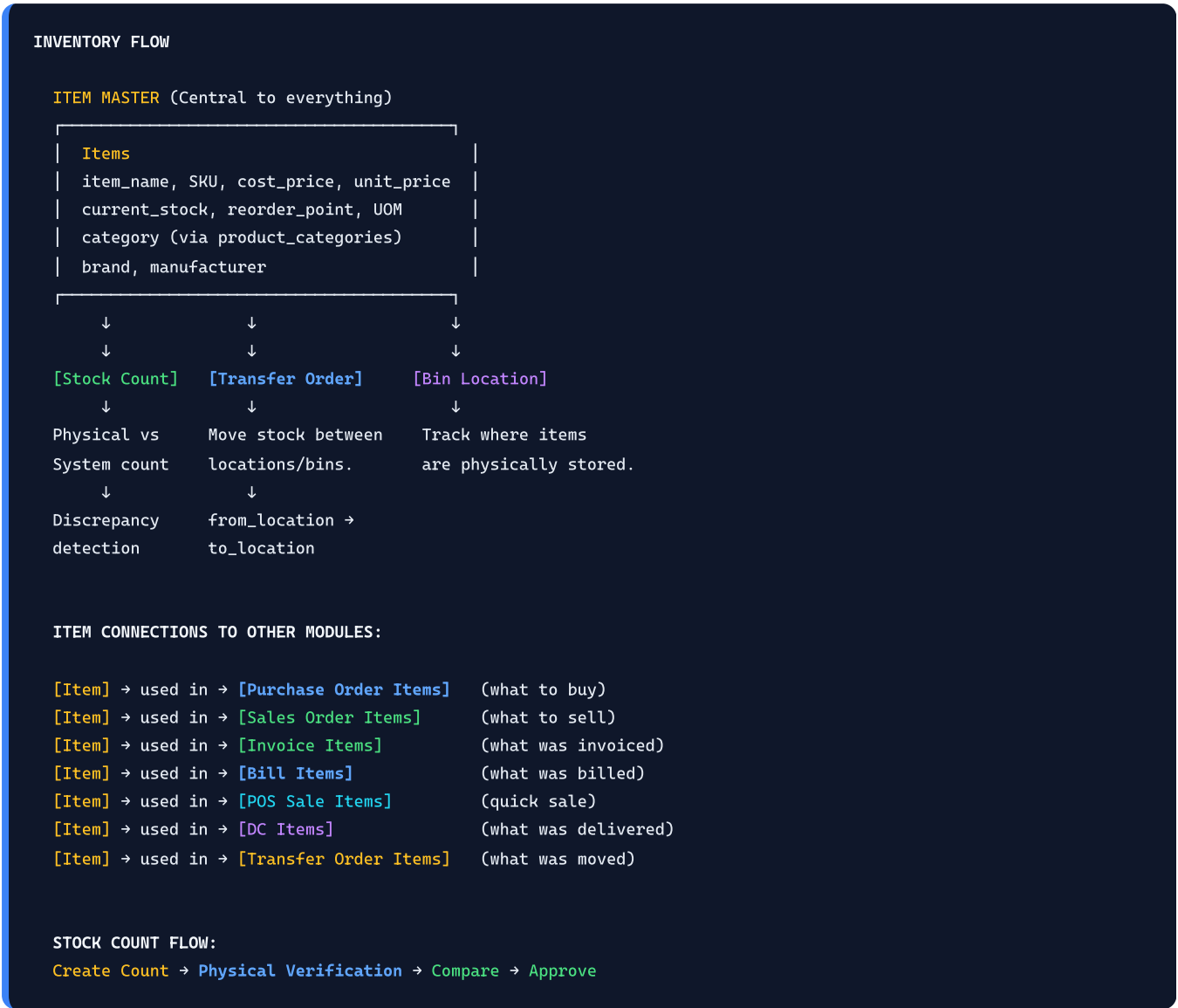
PAGE / COMPONENT	API ENDPOINT	PURPOSE
SalesOrdersPage	GET /api/sales-orders	List all SOs
SalesOrderDetailPage	GET /api/sales-orders/:id	View SO with items
NewSalesOrderForm	POST /api/sales-orders	Create new SO
InvoicesPage	GET /api/invoices	List all invoices
InvoiceDetailPage	GET /api/invoices/:id	View 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.

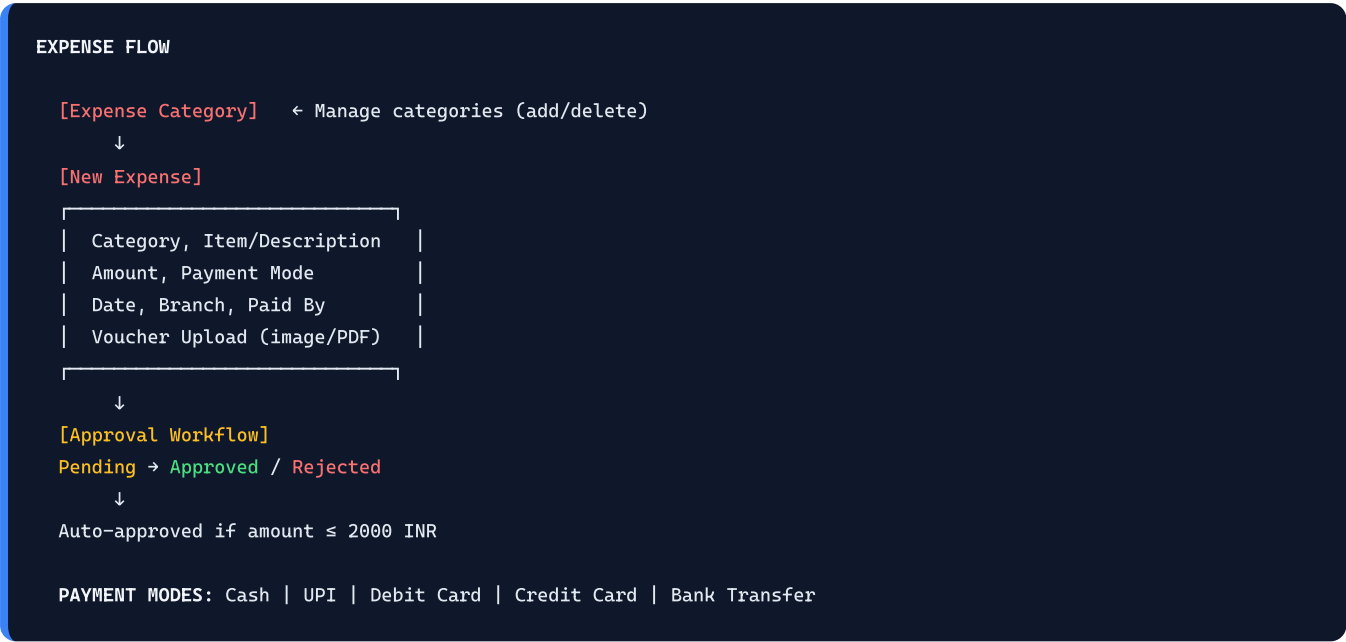


Inventory Module Pages & APIs

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



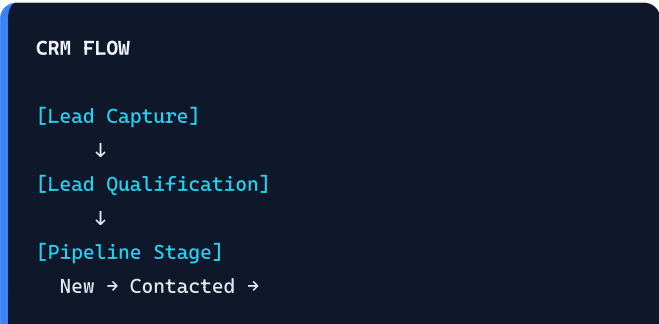
6. POS Flow

POINT OF SALE

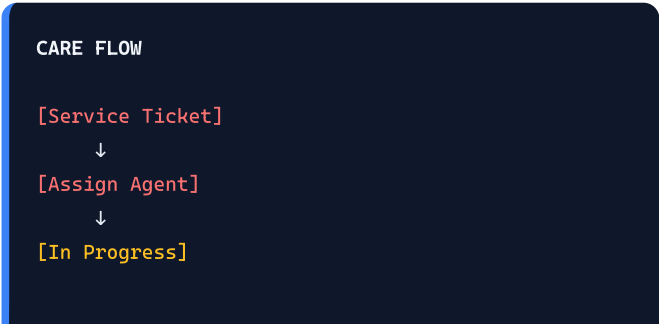


7. CRM & CARE Flows

CRM / SALES PIPELINE



CARE MODULE



Qualified → Proposal →
Negotiation → Won / Lost
↓
[Convert to Customer]

↓
[Resolved] / [Escalated]

8. Sidebar Navigation Map

How every module connects through the sidebar navigation.

SIDEBAR 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

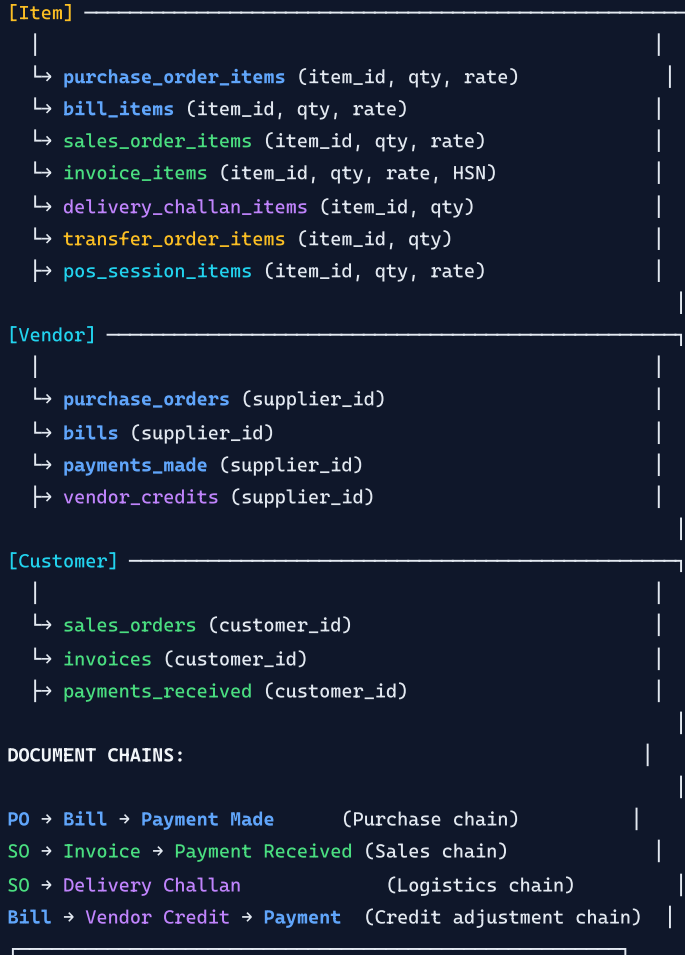
9. Complete API Map (28 Route Prefixes)

#	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

WEB AUTH

[Login Page]

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POST /api/auth/login
email + password (bcrypt)

↓

[JWT Token]

{ userId, email, role }

↓

Stored in localStorage

↓

Every request: Authorization: Bearer

↓

Auth middleware validates
against **users** table

MOBILE AUTH

[Mobile App]

↓

POST /api/mobile-auth/login
phone + PIN

↓

[JWT Token]

{ type: 'mobile', id }

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Stored in AsyncStorage

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Every request: Authorization: Bearer

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Auth middleware validates
against **mobile_users** table

Data Flow (Request Lifecycle)

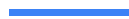
REQUEST LIFECYCLE

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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 }
```



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7 Module Flows documented

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

Prepared for 2XG Growth | February 2026