

E-Commerce GST Calculation & Sales Dashboard Project (MERN Stack)

This project involves building a MERN Stack application that fetches real-time order and sales data from e-commerce platforms (Meesho, Amazon, Flipkart) via APIs. The system also includes manual calculation logic based on SAP-like lists for matching uploaded product listings to calculate GST and prepare for GST filing.

Below is the step-by-step development plan.

1. Requirements Gathering and Planning:

- Understand the client's expectations: Sales dashboard, GST filing utility, real-time API sync, etc.
- Study the structure of manual SAP lists used for matching and calculations.

2. API Integrations:

- Register as a seller/developer on Meesho, Amazon, and Flipkart.
- Fetch API keys or tokens.
- Use Axios or Fetch in backend (Node.js/Express) to fetch real-time data (orders, returns, commissions, etc.).

3. Database Design (MongoDB):

- Collections: users, platforms, products, orders, gst_calculations, manual_sap_lists.
- Normalize platform-specific data using common models.

4. Frontend Development (React + Tailwind):

- Dashboard for real-time sales/orders.
- Upload interface for manual SAP Excel/CSV files.
- Comparison table: API product vs Manual list.

5. GST Calculation Engine:

- Match uploaded manual data with real-time product list.

- Calculate GST based on price, HSN code, tax slabs.
- Show input tax credit, output tax liability, net payable.

6. File Upload & Matching Logic:

- Use Multer or similar library to upload and parse Excel/CSV files.
- Implement matching algorithm (name match, SKU, product ID).

7. GST Report Generation:

- Generate monthly/quarterly reports in JSON, CSV or PDF.
- Include sales summary, tax summary, invoice-wise breakup.

8. Authentication and User Management:

- JWT-based login for admins and team members.
- Role-based access (e.g. upload only vs admin view).

9. Deployment:

- Use Vercel/Netlify for frontend and Railway/Render/Heroku for backend.
- MongoDB Atlas for database.
- Use cron jobs for auto API sync (every X minutes/hours).

10. Future Scope:

- Auto-GSTR filing integration (via third-party GST APIs).
- Multi-user, multi-company support.