

Design Report: Accounting Module for Professional Modern Website

Executive Summary

This report provides a detailed design overview of the Accounting module within a professional, modern business management website. The module is designed to handle core financial transactions tailored to various business types, ensuring compliance with tax regulations such as GST (Goods and Services Tax) and import/export duties. It emphasizes user-friendly interfaces, automation, and seamless data storage in Firebase Firestore.

Key design principles:

- **Modular Sub-Sections:** Accessible via tabs or cards after clicking the Accounting tab, allowing quick navigation to BUY, SELL, Expenditure, CAPITAL & DRAWINGS, BANK, or LOAN.
- **Intuitive Forms:** Responsive forms with validation, auto-completes, and conditional fields (e.g., GST details shown only if applicable).
- **Automation:** Client-side validation using Zod schemas; server-side Cloud Functions for journal entries, ledger updates, and integrations with inventory/invoicing.
- **Compliance:** Immutable audit logs, GST handling in Regular/Composite modes, and import/export tax capture.
- **UI/UX:** Modern design with Material-UI components, date pickers, toggles, and file uploads. Mobile-responsive for on-the-go use.

The Accounting tab opens a dedicated screen with sub-section selectors, customizing workflows based on user input.

Accounting Tab Overview

Upon clicking the Accounting tab from the main dashboard, a full-screen view loads with a

clean layout:

- **Header:** "Accounting" title, search bar for transactions, and filters (date range, type).
- **Sub-Sections:** Displayed as clickable cards or horizontal tabs:
 - BUY
 - SELL
 - Expenditure
 - CAPITAL & DRAWINGS
 - BANK
 - LOAN
- **Additional Features:**
 - Transaction history table below selectors, sortable by date/amount/type.
 - Quick-add floating action button (FAB) for common actions.
 - Real-time balance summaries (e.g., cash on hand, outstanding payables/receivables).
- **Navigation Flow:** Clicking a sub-section opens a dedicated page with forms for new entries and a list of existing records. All pages include back buttons, save drafts, and export options.

Data is stored in Firestore under `organizations/{orgId}/accounting/{sub-section}`, with each transaction as a document containing fields, timestamps, user IDs, and audit metadata.

1. BUY Sub-Section

This sub-section manages purchase transactions. Upon clicking BUY, the page displays:

- **Initial Form Fields:**

Field	Type	Options/Notes
Date	Date	Default: Current date (editable picker).
Type	Select	Raw Material / Inventory / Capital Asset (required; triggers workflow-specific form).
Vendor Name	Text	Optional; auto-suggest from historical vendors or contacts.
Payment Method	Select	Cash / Bank / Credit (Pay Later).
Amount	Number	Required; positive value with currency formatting.
GST Applicable	Toggle	Yes/No; If Yes, reveals % (number input) or Type (dropdown: e.g., IGST, CGST+SGST).
GSTN	Text	Required if GST Yes; validated for format.
Type of GST	Select	Regular / Composite.
Remarks	Textarea	Optional; for notes.
Import/Export	Number	Optional; with type selector (e.g., duty percentage).
Tax		

- **Workflow-Specific Forms** (Opened as a modal or sub-page after selecting Type):

- **Raw Material:**
 - Additional Fields: Product Name (text, required), Quantity (number, required).
 - Data Storage: Full form data saved to Firestore accounting/buy . Includes: Product Name, Quantity, Vendor Name, Payment Method, Amount, GST details, Remarks, Import/Export Tax.
 - Automation: Triggers inventory update (add to stock), journal entry (Debit Purchases / Credit Cash/Bank/Payables).
- **Inventory:**
 - Additional Fields: Product Name (text, required), Price (number, required), Quantity (number, required).
 - Data Storage: Similar to Raw Material, plus Price field.
 - Automation: Updates inventory ledger with cost averaging if applicable.
- **Capital Asset:**
 - Additional Fields: Asset Name (text, required), Quantity (number, required).
 - Data Storage: Similar to Raw Material, with Asset Name instead of Product Name.
 - Automation: Adds to fixed assets register; depreciation scheduler integration if enabled.
- **Submission Process:** Validate inputs (e.g., Amount > 0), save to database, notify user via toast message. Edge cases: Handle zero-rated GST for exports.

2. SELL Sub-Section

This handles sales transactions. Clicking SELL opens:

- **Form Fields:**

Field	Type	Options/Notes
Date	Date	Default: Current date.
Type	Select	Product / Other (required).
Buyer Name	Text	Optional; auto-suggest from customers.
Payment Method	Select	Cash / Bank / Credit (Receive Later).
Amount	Number	Required.
GST Applicable	Toggle	Yes/No; If Yes, shows % or Type.
GSTN	Text	Required if GST Yes.
Type of GST	Select	Regular / Composite.
Remarks	Textarea	Optional.
Import/Export Tax	Number	Optional.

- **Data Storage:** Saved to `accounting/sell`. Includes all fields.
- **Automation:** Auto-generates invoice if linked to Invoicing tab; journal entry (Debit Cash/Receivables / Credit Sales + GST Payable); reduces stock if Type=Product.
- **Features:** Preview total with taxes; link to inventory for product selection.

3. Expenditure Sub-Section

For recording business expenses. Clicking Expenditure opens:

- **Form Fields:**

Field	Type	Options/Notes
Date	Date	Default: Current date.
Expense Type	Select	Electricity / Office Rent / Salary (extendable with "Other").
Payment Method	Select	Cash / Bank A/C / Credit (to pay later).
Amount	Number	Required.
Paid To	Text	Optional.
GST Applicable	Toggle	Yes/No; If Yes, shows GSTN and Type.
GSTN	Text	Required if GST Yes.
Type of GST	Select	Regular / Composite.
Upload Bill	File	Optional; stored in Firebase Storage, linked via URL in Firestore.
Remarks	Textarea	Optional.
Import/Export Tax	Number	Optional.

- **Data Storage:** Saved to accounting/expenditure . Includes bill URL if uploaded.
- **Automation:** Journal entry (Debit Expense / Credit Cash/Payables); categorize for reports.
- **Features:** Bill preview modal; recurring expense setup for salaries/rent.

4. CAPITAL & DRAWINGS Sub-Section

Manages owner/partner equity. Clicking opens a form for contributions, drawings, or transfers.

- **Form Fields:** Date, Partner/Owner (select from users), Type
(Contribution/Drawing/Transfer), Payment Method, Amount, GST Applicable (toggle with

(Contribution/Drawing/Transfer), Payment Method, Amount, GST Applicable (toggle with details), Remarks.

- **Data Storage:** accounting/capital . Tracks equity balances.
- **Automation:** Updates capital accounts in ledger; audit logs for changes.

5. BANK Sub-Section

Handles banking transactions.

- **Form Fields:** Date, Bank Account (select from linked accounts), Transaction Type (Deposit/Withdraw/Transfer), Payment Method, Amount, GST details, Remarks.
- **Data Storage:** accounting/bank .
- **Automation:** Reconciles with uploaded statements; balance tracking.

6. LOAN Sub-Section

Tracks loans and repayments.

- **Form Fields:** Date, Loan Provider, Amount (Disbursed/Repaid), Interest %, EMI (calculated), Payment Method, GST details, Remarks.
- **Data Storage:** accounting/loan .
- **Automation:** Amortization charts; overdue alerts.

Compliance and Testing

- **GST Handling:** Supports Regular (detailed breakdowns) and Composite (lump-sum). Test calculations across percentages, exemptions, and exports.

~~Calculations across purchases, exemptions, and exports.~~

- **Audit:** All entries immutable with logs; role-based edits (e.g., approve button for managers).
- **Edge Cases:** Zero amounts, negative quantities (errors), file upload failures.
- **Integration:** Links to Reports tab for P&L, Balance Sheet generation from these data.

This module ensures accurate, compliant financial tracking, with scalable design for future enhancements.