

Encryptz ERP - Functionality and Features Document

Version: 1.0

Date: 23rd November 2025

Project: Encryptz Accountz ERP - Core Module

Purpose: Comprehensive feature documentation for stakeholders and end users

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Executive Summary

Encryptz ERP is a comprehensive Enterprise Resource Planning system built with modern technologies (.NET 8, Angular 17+, PostgreSQL) designed to manage accounting, business operations, and user access control. The system supports multi-tenant architecture where users can manage multiple businesses with role-based permissions and subscription-based feature access.

Key Highlights

- **Multi-tenant Architecture:** Support for multiple businesses per user
- **Role-Based Access Control:** Granular permission system
- **Subscription Management:** Flexible subscription plans with feature-based access
- **Double-Entry Accounting:** Complete accounting module with vouchers, transactions, and ledgers
- **Audit Trail:** Comprehensive logging of all system activities
- **Modern UI:** Responsive Angular-based frontend with dynamic menu system
- **Secure Authentication:** JWT-based authentication with refresh token rotation

System Overview

Architecture

The system follows a layered architecture:

- **Frontend:** Angular 17+ with TypeScript
- **Backend:** .NET 8 Web API
- **Database:** PostgreSQL 14+
- **Authentication:** JWT with refresh token rotation
- **Deployment:** Linux-ready with Nginx reverse proxy support

Technology Stack

Backend:

- .NET 8.0 / C# 12
- Entity Framework Core (Repository Pattern)
- AutoMapper for DTO mapping
- JWT Authentication
- PostgreSQL (Npgsql)

Frontend:

- Angular 17+
- Angular Material / PrimeNG
- RxJS for reactive programming
- TypeScript

Infrastructure:

- PostgreSQL Database
- Nginx (Reverse Proxy)
- Linux Deployment Support

Core Features

1. Multi-Business Support

Users can create and manage multiple businesses within a single account. Each business operates independently with its own:

- Chart of Accounts
- Transactions and Vouchers
- Users and Roles
- Subscription Plan
- Financial Reports

The screenshot shows the Encryptrz Admin Control Center dashboard. At the top, it says "Hi, encryptzAdmin" and "Welcome to **encryptz** workspace". It prompts to "Select a business to continue where you left off." Below this, there are two main sections: "STEP 1 Your businesses" and "STEP 2 Select a module".

STEP 1 Your businesses: Shows a list of businesses. The first one is selected: "Encryptz Admin Control Center" (ADMIN-CTRL) with a "Default" status and a "Qeeb55c3" ID. There is a "+ Create business" button and a "Change selection" link.

STEP 2 Select a module: Shows modules for Encryptz Admin Control Center. Two modules are listed: "Accounts" (Manage chart of accounts, vouchers, ledgers, and statutory reports) and "Admin" (Manage users, subscriptions, and core configurations). Both have a blue arrow icon below them.

Key Functionality:

- Create unlimited businesses (subject to subscription plan)
- Switch between businesses seamlessly
- Set default business for quick access
- Business-specific user roles and permissions

User Management & Authentication

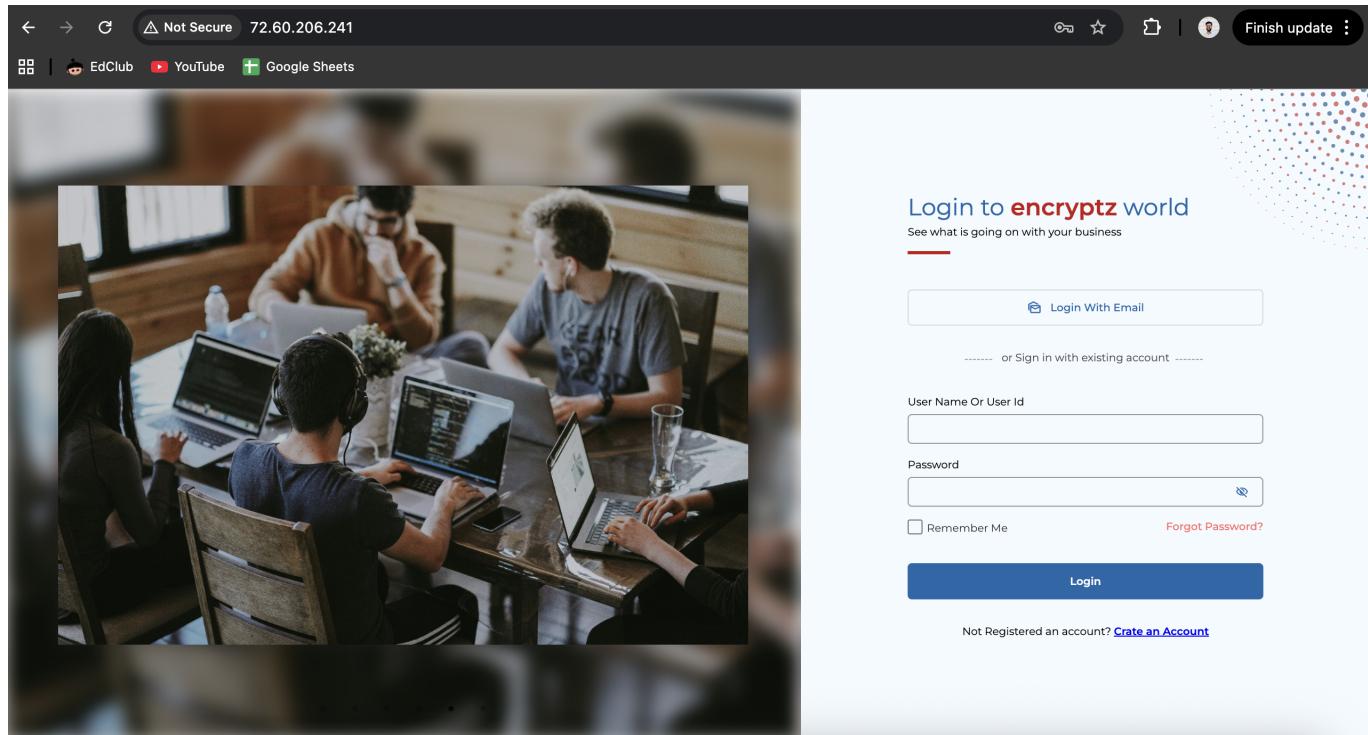
Registration & Login

Registration Features:

- User handle (unique identifier)
- Email and/or mobile number
- PAN card number (encrypted storage)
- Aadhar number (optional, encrypted)
- Password with secure hashing (BCrypt)

Login Features:

- Email/Username and password login
- OTP-based login (via email/mobile)
- Google Sign-in (planned)
- Mobile OTP login (planned)
- JWT token-based authentication
- Refresh token rotation for security



User Profile Management

- Complete user profile setup
- Profile completion tracking
- User handle management
- Contact information updates
- PAN/Aadhar verification status

Password Management

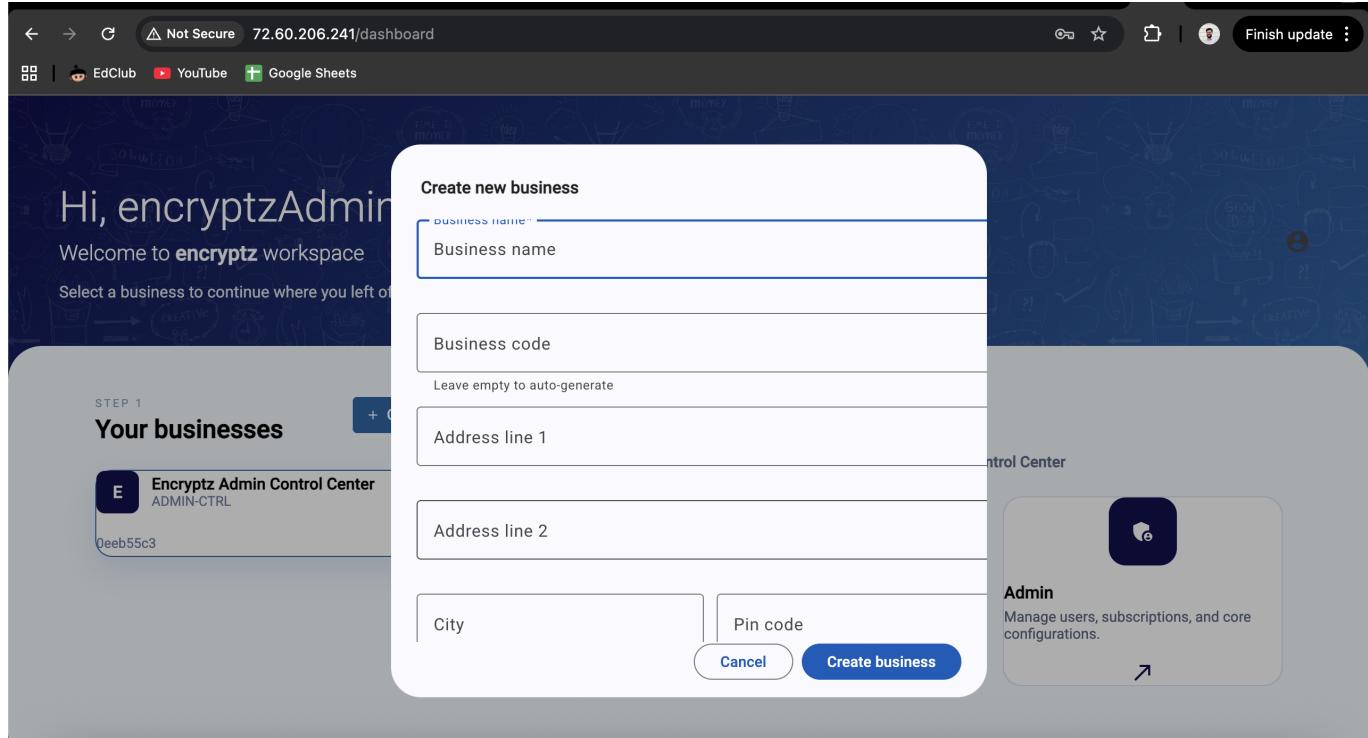
- Secure password hashing (BCrypt)
- Password reset functionality
- Password strength validation
- Account lockout after failed attempts

Business Management

Business Creation

Business Master Data:

- Business Name
- Business Code (unique identifier)
- GSTIN (GST Identification Number)
- TAN Number
- Complete Address (Line 1, Line 2, City, State, PIN, Country)
- Active/Inactive status



Business Operations

- View all businesses associated with user
- Set default business
- Edit business details
- Activate/Deactivate businesses
- Business-specific dashboard

The screenshot shows the Encryptrz Admin Control Center. The left sidebar includes 'User Management', 'Security Center', 'System Setup', 'Modules', 'Menu Builder', 'Subscription Plans', and 'Audit & Activity'. The main area displays 'Recent Users' and 'Recent Businesses'. The 'Recent Users' table lists handles, names, and emails. The 'Recent Businesses' table lists business names, locations, and creation dates. A 'Recent Activity' section is also visible at the bottom.

Handle	Name	Email
abdulla.encryptz	New User	abdulla.encryptz@encr...
abdulla	New User	abdulla@encr...
encryptzAdmin	Encryptz System Admin	admin@encr...
abdu9744	Abdulla ET	abdu9744@encr...

Business	Location	Created
New User's Workspace	—	Nov 24, 2025
Encryptz Admin Control Center	Bengaluru	Nov 23, 2025
New User's Workspace	—	Nov 22, 2025
New User's Workspace	—	Nov 22, 2025
New User's Workspace	—	Nov 22, 2025

Subscription Management

Subscription Plans

The system supports multiple subscription tiers with different features:

Plan Features:

- Maximum number of users
- Maximum number of businesses
- Feature-based permissions
- Pricing information
- Public visibility control

Screenshot Placeholder:

The screenshot shows the 'Subscription Plans' page within the Encryptz admin dashboard. The left sidebar contains navigation links for Dashboard, User Management, Security Center, Roles, Permissions, System Setup, Modules, Menu Builder, and the currently selected 'Subscription Plans'. The main content area has a dark header with 'SUBSCRIPTION PLANS' and a search bar labeled 'Search plans'. Below is a table listing four subscription plans: FREE, GOLD, PLATINUM, and SILVER. Each plan row includes columns for Plan name, Price, Limits, Visible status (checked), Status (Active), and edit/delete icons. At the bottom right of the table are buttons for 'Items per page: 10' and '0 of 0'.

Plan	Price	Limits	Visible	Status	Action	Action
FREE Free plan with basic features	₹0.00	2 users · 1 businesses	<input checked="" type="checkbox"/>	Active		
GOLD Gold plan with premium features	₹3,499.00	5 users · 5 businesses	<input checked="" type="checkbox"/>	Active		
PLATINUM Platinum plan with all features	₹4,999.00	999999 users · 999999 businesses	<input checked="" type="checkbox"/>	Active		
SILVER Silver plan with enhanced features	₹2,499.00	2 users · 1 businesses	<input checked="" type="checkbox"/>	Active		

User Subscriptions

- Subscribe businesses to plans
- Track subscription status (Active, Expired, Trial, Cancelled)
- Trial period management
- Subscription start and end dates
- Automatic expiration handling

Screenshot Placeholder:

Plan	Price	Limits	Visible	Status
FREE Free plan with basic features	₹0.00	2 users · 1 businesses	<input checked="" type="checkbox"/>	Active
GOLD Gold plan with premium features	₹3,499.00	5 users · 5 businesses	<input checked="" type="checkbox"/>	Active
PLATINUM Platinum plan with all features	₹4,999.00	999999 users · 999999 businesses	<input checked="" type="checkbox"/>	Active
SILVER Silver plan with enhanced features	₹2,499.00	2 users · 1 businesses	<input checked="" type="checkbox"/>	Active

Items per page: 10 0 of 0

Subscription Status

- Active: Fully operational
- Expired: Access restricted
- Trial: Limited time access
- Cancelled: Subscription terminated

Role-Based Access Control (RBAC)

Roles

System Roles:

- **Business Owner:** Ultimate control over business account, subscription, and billing
- **Admin:** Full access to all modules within the business
- **Accountant:** Access to Accounts module for transactions, ledgers, and reports
- **Sales Staff:** Access to CRM and POS modules
- **Read Only:** View-only access to data and reports

Custom Roles:

- Create custom roles with specific permissions
- Assign permissions to roles
- Role-based menu visibility

Screenshot Placeholder:

The screenshot shows the 'ROLES' section of the Encryptz Admin interface. The left sidebar has a dark blue theme with categories like Dashboard, User Management, Security Center, Roles (selected), Permissions, System Setup, Modules, Menu Builder, Subscription Plans, and Audit & Activity. The main area has a white background with a header 'ROLES' and a sub-header 'Control who can access admin capabilities'. A search bar labeled 'Search roles' is at the top. Below is a table with columns 'Role', 'Description', and 'System'. The table contains five rows: Business Owner, Admin, Accountant, Sales Staff, and Read Only. Each row has a toggle switch, a shield icon, a pen icon, and a trash bin icon. At the bottom right are buttons for 'Items per page: 10' and '0 of 0'.

Role	Description	System
Business Owner	Has ultimate control over the business account, including subscription and billing.	<input checked="" type="checkbox"/>
Admin	Can manage users and has full access to all modules within the business.	<input checked="" type="checkbox"/>
Accountant	Has access to the Accounts module for managing transactions, ledgers, and reports.	<input type="checkbox"/>
Sales Staff	Has access to CRM and Point of Sale (POS) modules.	<input type="checkbox"/>
Read Only	Can view data and reports but cannot create or edit records.	<input type="checkbox"/>

Permissions

Permission System:

- Granular permission keys
- Module-based permissions
- Menu item associations
- Permission descriptions
- Subscription plan permissions

User-Business-Role Assignment

- Assign users to businesses
- Assign roles to users within businesses
- Multiple roles per user per business
- Role-based UI visibility
- Permission-based API access

Accounting Module

Chart of Accounts

Account Management:

- Hierarchical account structure
- Account types (Asset, Liability, Equity, Income, Expense)
- Account codes and names
- Parent-child relationships
- Account status (Active/Inactive)

- Opening balances

Screenshot Placeholder:

Account Types:

- Assets
- Liabilities
- Equity
- Income
- Expenses

Screenshot Placeholder: [Add screenshot of Account Types page]

Transactions

Transaction Management:

- Create journal entries
- Double-entry bookkeeping validation
- Transaction headers and details
- Reference numbers
- Transaction dates
- Descriptions
- Debit/Credit validation

Screenshot Placeholder: [Add screenshot of transaction entry form]

Transaction Features:

- View all transactions
- Filter by date range
- Search by reference number

- View transaction details
- Edit draft transactions
- Delete transactions (with restrictions)

Vouchers

Voucher Types:

- Payment Voucher
- Receipt Voucher
- Journal Voucher
- Contra Voucher
- Sales Voucher
- Purchase Voucher

Voucher Workflow:

1. Create draft voucher
2. Add voucher lines (debit/credit entries)
3. Validate double-entry balance
4. Post voucher (creates transactions)
5. Generate ledger entries

Screenshot Placeholder: [Add screenshot of voucher creation form]

Voucher Features:

- Draft management
- Post vouchers
- Voucher numbering
- Voucher status tracking
- Date-based filtering
- Type-based filtering

Ledger

Ledger Features:

- Account-wise ledger view
- Opening balance display
- Transaction-wise balance
- Running balance calculation
- Date range filtering
- Export capabilities

Screenshot Placeholder: [Add screenshot of ledger view]

Reports

Financial Reports:

- Trial Balance
- Profit & Loss Statement
- Balance Sheet
- Account Summary
- Transaction Reports

Screenshot Placeholder: [Add screenshot of reports page]

Dashboard & Reporting

Business Dashboard

Dashboard Components:

- Key Performance Indicators (KPIs)
- Recent Activities
- Quick Action Shortcuts
- Subscription Status
- Business Summary

Screenshot Placeholder: [Add screenshot of business dashboard]

KPIs Include:

- Total Transactions
- Total Vouchers
- Active Accounts
- Monthly Revenue (if applicable)
- Pending Items

Recent Activities:

- Latest transactions
- Recent vouchers
- User activities
- System events
- Audit log entries

Screenshot Placeholder:

The screenshot shows the Encryptz Admin Dashboard at the URL 72.60.206.241/admin. The left sidebar contains a navigation menu with items like Dashboard, User Management, Security Center, Roles, Permissions, System Setup, Modules, Menu Builder, Subscription Plans, and Audit & Activity. A message 'Ready for provisioning' is displayed at the top. Below it are two sections: 'Recent Users' and 'Recent Businesses'. The 'Recent Users' section lists four entries: 'abdulla.encryptz' (Handle), 'New User' (Name), and 'abdulla.encryptz' (Email). The 'Recent Businesses' section lists five entries: 'New User's Workspace' (Business), '-' (Location), and 'Nov 24, 2025' (Created). At the bottom, there is a section titled 'Recent Activity'.

Admin Dashboard

Admin Features:

- System-wide statistics
- User management overview
- Business statistics
- Subscription analytics
- System health monitoring

Screenshot Placeholder:

The screenshot shows the Encryptz Admin Dashboard at the URL 72.60.206.241/admin. The left sidebar is identical to the previous screenshot. At the top right, the user 'encryptzAdmin' is logged in. Below the sidebar is a 'System Overview' section with a subtitle 'Live snapshot of platform adoption and activity'. It displays four key metrics: 'TOTAL USERS' (2), 'BUSINESSES' (8), 'SECURITY OBJECTS' (5), and 'NAVIGATION ASSETS' (15). Below this is a 'SUBSCRIPTION PLANS' section showing '4' plans and a status 'Ready for provisioning'. At the bottom are 'Recent Users' and 'Recent Businesses' sections, which are identical to the ones in the first screenshot.

Audit & Compliance

Audit Logging

Audit Trail Features:

- Track all data changes
- User action logging
- Timestamp recording
- Change details (before/after)
- Table and record tracking
- Operation type (INSERT, UPDATE, DELETE)

Screenshot Placeholder:

The screenshot shows the 'Audit Log' page of the Encryptz application. The URL in the browser bar is 72.60.206.241/admin/audit-log. The top navigation bar includes tabs for EdClub, YouTube, and Google Sheets, along with a 'Finish update' button. On the left, a dark sidebar menu lists various sections: Dashboard, User Management, Security Center (with Roles and Permissions), System Setup (with Modules and Menu Builder), Subscription Plans, and Audit & Activity (which is currently selected). The main content area has a header 'AUDIT LOG' and a sub-header 'Audit Log' with the sub-instruction 'Track recent configuration changes inside the platform'. It features four input fields: 'Table', 'Action', 'From dd/mm/yyyy', and 'To dd/mm/yyyy', with a 'Limit' set to 50. Below these are two buttons: 'Reset' (red) and 'Apply' (blue). A table below the filters displays audit log entries with columns: Table, Action, User, Timestamp, and Record Id. The table is currently empty.

Audit Information Captured:

- User ID
- Operation type
- Table name
- Record ID
- Change description
- Timestamp (UTC)

Compliance Features

- PAN card encryption
- Aadhar number encryption
- Secure password storage
- Data privacy compliance

- Audit trail for regulatory requirements
-

User Interface Features

Dynamic Menu System

Menu Features:

- Module-based organization
- Hierarchical menu structure
- Role-based visibility
- Permission-based access
- Icon support
- Custom display order

Responsive Design

- Mobile-friendly interface
- Tablet optimization
- Desktop full-featured view
- Adaptive layouts
- Touch-friendly controls

UI Components

Shared Components:

- Confirmation dialogs
 - Loading indicators
 - Snackbar notifications
 - Form validations
 - Data tables with pagination
 - Search and filter controls
-

Security Features

Authentication Security

- JWT token-based authentication
- Refresh token rotation
- HTTP-only cookies for refresh tokens
- Token expiration management
- Secure token storage
- IP address tracking

Data Security

- Encrypted PAN card storage

- Encrypted Aadhar storage
- BCrypt password hashing
- Secure API endpoints
- HTTPS enforcement
- CORS configuration

Authorization

- Role-based access control
- Permission-based API access
- Business-level data isolation
- User-level data access
- API endpoint protection

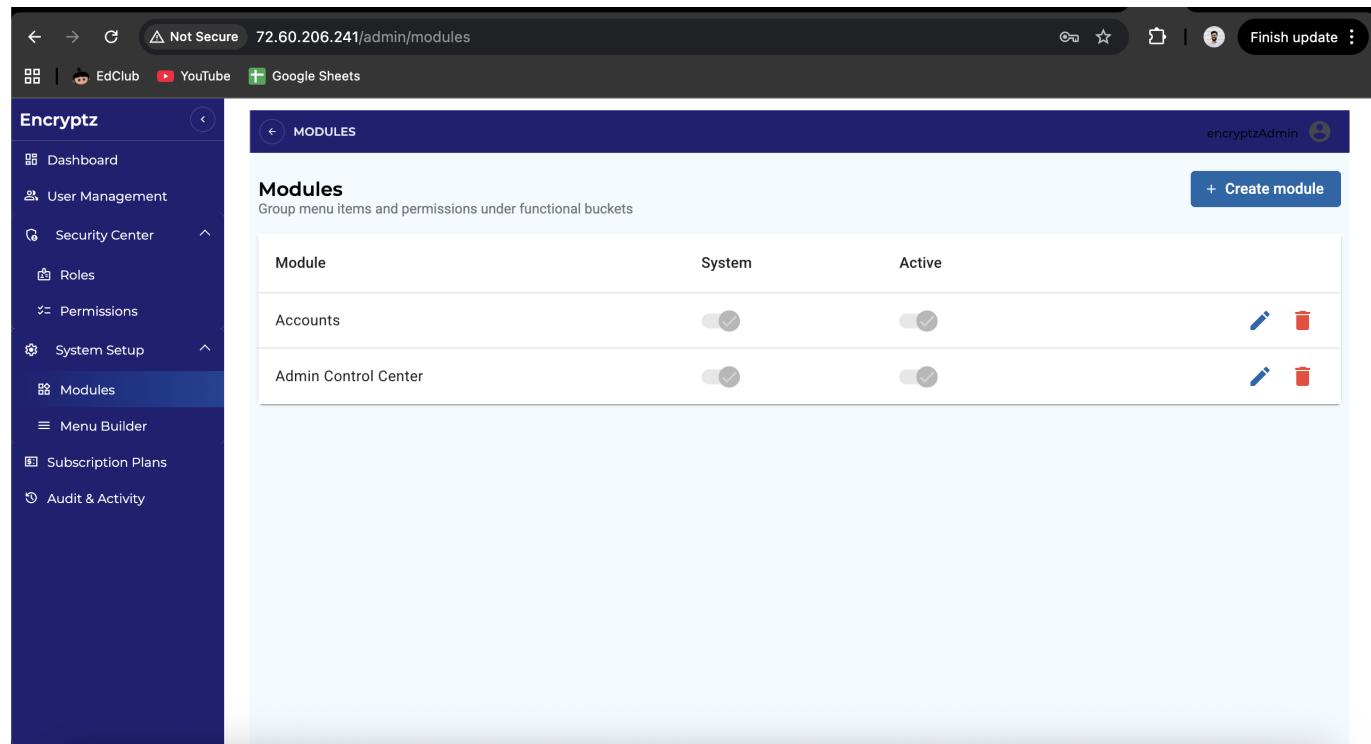
System Administration

Module Management

Module Features:

- Create system modules
- Define module hierarchy
- Module activation/deactivation
- System module protection

Screenshot Placeholder:



The screenshot shows a web browser window with the URL `72.60.206.241/admin/modules`. The page title is "MODULES". On the left, there is a sidebar menu with the following items: Dashboard, User Management, Security Center, Roles, Permissions, System Setup, **Modules** (which is currently selected), Menu Builder, Subscription Plans, and Audit & Activity. The main content area has a header "Modules" with the sub-instruction "Group menu items and permissions under functional buckets". A "Create module" button is located in the top right. Below this, there is a table with three columns: "Module", "System", and "Active". The table contains two rows: "Accounts" and "Admin Control Center". Each row has a "Edit" icon (pencil) and a "Delete" icon (trash can) in the last column. The "System" and "Active" columns for both rows have toggle switches.

Module	System	Active
Accounts	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Admin Control Center	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Menu Builder

- Create menu items
- Define menu hierarchy

- Assign to modules
- Set display order
- Configure icons
- Set URLs and routes

Screenshot Placeholder:

The screenshot shows a web browser window for 'Encryptz' at the URL 72.60.206.241/admin/menu-builder. The page title is 'MENU BUILDER'. On the left, there's a sidebar with a dark blue background containing the following menu items:

- Dashboard
- User Management
- Security Center
- Roles
- Permissions
- System Setup
- Modules
- Menu Builder** (selected)
- Subscription Plans
- Audit & Activity

On the right, the main content area is titled 'Menu Builder' with the subtitle 'Manage navigation menus for modules'. It lists several menu items with edit and delete icons:

- Dashboard (Group) - /admin/dashboard
- User Management (Group) - /admin/user-management
- Security Center (Group) - /admin/security-center
- System Setup (Group) - /admin/system-setup
- Subscription Plans (Group) - /admin/subscription-plans
- Audit & Activity (Group) - /admin/audit-log

A dropdown menu labeled 'Module' is open, showing 'Admin Control Centre...' and a '+ Add menu item' button.

Permission Management

- Create permissions
- Assign to modules
- Link to menu items
- Assign to roles
- Assign to subscription plans

User Management (Admin)

- View all users
- Activate/Deactivate users
- View user details
- Manage user-business associations
- View user roles

Screenshot Placeholder:

The screenshot shows the 'USER-MANAGEMENT' section of the Encryptz application. On the left is a dark sidebar with the 'Encryptz' logo and a navigation menu including 'Dashboard', 'User Management' (which is selected), 'Security Center', 'Roles', 'Permissions', 'System Setup', 'Modules', 'Menu Builder', 'Subscription Plans', and 'Audit & Activity'. The main area has a header 'USER-MANAGEMENT' and a sub-header 'Users: Manage admins and platform level accounts'. It features a search bar 'Search users' and a button '+ Create user'. A table lists two users: 'encryptzAdmin' (Handle: encryptzAdmin, Name: Encryptz System Admin, Email: admin@encryptz.com, Phone: +91 9876543210, Created: Nov 23, 2025, Status: Active) and 'abdu9744' (Handle: abdu9744, Name: Abdulla ET, Email: abdu9744@gmail.com, Phone: +91 9744322544, Created: Nov 18, 2025, Status: Active). There are edit and delete icons for each user. At the bottom, there's a pagination bar showing 'Items per page: 10' and '0 of 0'.

Feature Summary Table

Feature Category	Features	Status
Authentication	Registration, Login, JWT, Refresh Tokens, OTP	✓ Complete
User Management	Profile, Multi-business, User-Business-Role	✓ Complete
Business Management	Create, Edit, Activate, Default Business	✓ Complete
Subscription	Plans, Subscriptions, Status Tracking	✓ Complete
RBAC	Roles, Permissions, Role-Permission Mapping	✓ Complete
Accounting	Chart of Accounts, Transactions, Vouchers, Ledger	✓ Complete
Reports	Trial Balance, P&L, Balance Sheet	✓ Partial
Dashboard	KPIs, Recent Activities, Quick Actions	✓ Complete
Audit	Audit Logging, Change Tracking	✓ Complete
Admin	Module Management, Menu Builder, User Management	✓ Complete

User Workflows

New User Onboarding

1. User visits ERP website
2. Registration with email/mobile
3. OTP verification

4. Profile setup (PAN card, details)
5. Create first business OR explore with default business
6. Select subscription plan
7. Start using the system

Screenshot Placeholder:

Hi, encryptzAdmin

Welcome to **encryptz** workspace

Select a business to continue where you left off.

STEP 1

Your businesses

+ Create business Change selection

E Encryptz Admin Control Center
ADMIN-CTRL
Default
Qeeb55c3

STEP 2

Select a module

Showing modules for Encryptz Admin Control Center

Accounts
Manage chart of accounts, vouchers, ledgers, and statutory reports.

Admin
Manage users, subscriptions, and core configurations.

Daily User Workflow

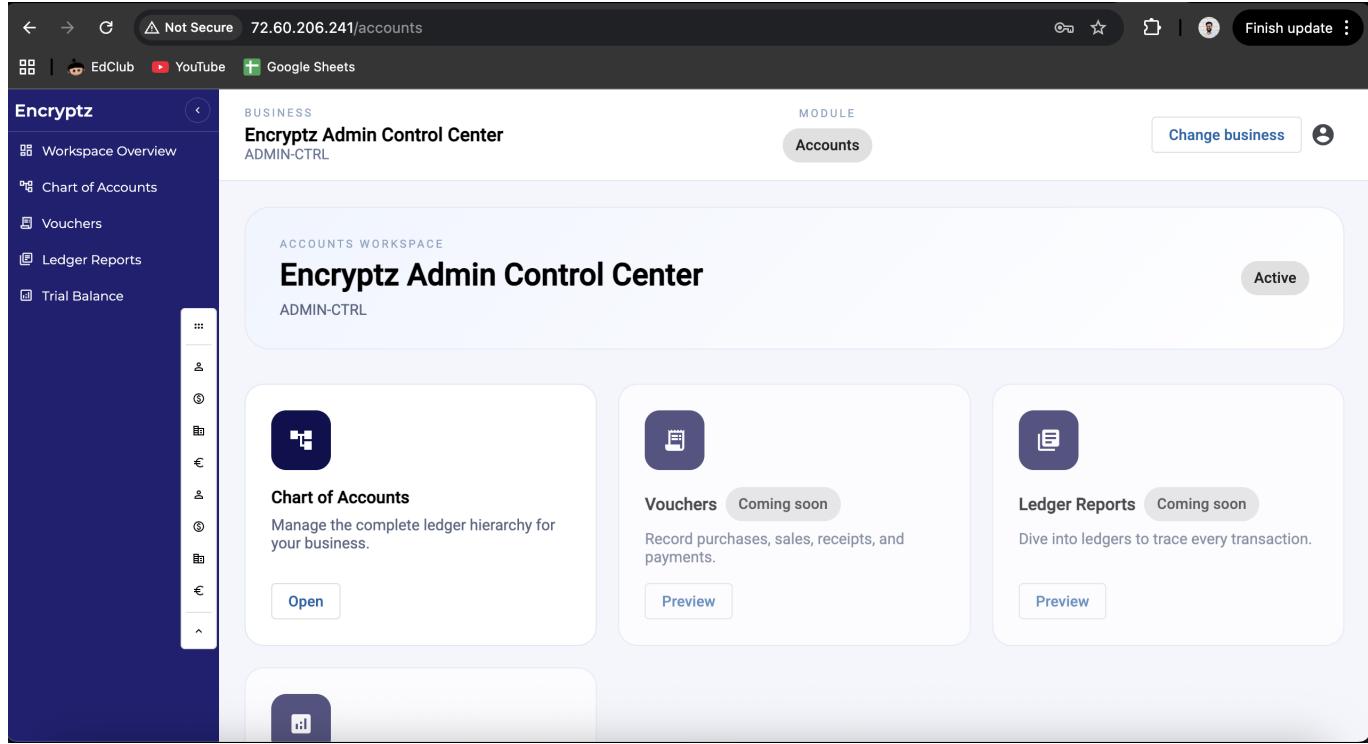
1. Login to system
2. Select business (if multiple)
3. View dashboard
4. Navigate to module (e.g., Accounts)
5. Perform actions (create voucher, view ledger)
6. View reports
7. Logout

Screenshot Placeholder:

Business Owner Workflow

1. Login
2. Select business
3. View subscription status
4. Manage users and roles
5. View financial reports
6. Manage subscription
7. View audit logs

Screenshot Placeholder:



System Requirements

Browser Support

- Chrome (latest)
- Firefox (latest)
- Safari (latest)
- Edge (latest)

Device Support

- Desktop (Windows, macOS, Linux)
- Tablet (iOS, Android)
- Mobile (iOS, Android)

Network Requirements

- Internet connection
- HTTPS support
- API endpoint access

Future Enhancements

Planned Features

- **CRM Module:** Customer relationship management
- **POS Module:** Point of sale integration
- **Inventory Management:** Stock tracking

- **Advanced Reporting:** Custom report builder
 - **Mobile App:** Native iOS and Android apps
 - **Email Integration:** Automated email notifications
 - **Payment Gateway:** Subscription payment processing
 - **Multi-currency:** Support for multiple currencies
 - **Tax Management:** GST, TDS, and other tax calculations
-

Support & Documentation

Additional Documentation

- Technical Documentation (for developers)
- API Documentation (Swagger)
- Database Schema Documentation
- Deployment Guide
- Testing Documentation

Contact Information

For support and queries, please refer to the project repository or contact the development team.

Appendix

Glossary

- **RBAC:** Role-Based Access Control
- **JWT:** JSON Web Token
- **OTP:** One-Time Password
- **GSTIN:** GST Identification Number
- **TAN:** Tax Deduction and Collection Account Number
- **PAN:** Permanent Account Number
- **KPI:** Key Performance Indicator
- **P&L:** Profit & Loss Statement

Version History

Version	Date	Changes
1.0	23rd November 2025	Initial documentation

Last Updated: 23rd November 2025