Project Documentation: Dashboard System

Project Overview

The Dashboard System is a web-based application designed to provide role-based dashboards for Super Admin, Sub Admin, User, and Customer roles. It supports user authentication, password recovery, and role-specific functionalities such as user management, customer management, and performance tracking. The application features a responsive UI with animations (via Framer Motion), data visualization (via Recharts), and a modular architecture for scalability.

Technology Stack

The project utilizes a modern web development stack to ensure performance, scalability, and developer productivity:

- **Frontend**:
  - **React**: JavaScript library for building dynamic user interfaces.
  - **React Router**: For client-side routing and navigation.
  - **Tailwind CSS**: Utility-first CSS framework for responsive and customizable styling.
  - **Framer Motion**: For animations and transitions in UI components.
  - **Recharts**: For rendering charts (AreaChart, BarChart) in dashboards.
  - **React Icons**: For iconography (e.g., FaEnvelope, FaLock).
- **Build Tools**:
  - **Vite**: Development server and bundler (assumed, based on modern React setup).
  - **ESLint/Prettier** (assumed): For code linting and formatting.
- **Other**:
  - **LocalStorage**: For storing authentication tokens and user data.
  - **CDN**: React and dependencies are assumed to be hosted via cdn.jsdelivr.net for production.

Folder Structure

The project follows a modular, MVC-inspired folder structure for the frontend, promoting maintainability and scalability. Below is the folder structure with a textual tree representation: login screen1/

```
 ├── public
|   ├── index.html
 ├── src
|   ├── components
|   |   ├── Login
|   |   |   ├── Login.css
|   |   |   ├── Login.jsx
|   |   |   ├── LoginForm.jsx
|   |   ├── AuthContext.jsx
|   |   ├── Dashboard.jsx
|   |   ├── Navbar.jsx
|   ├── pages
|   |   ├── Dashboard
|   |   |   ├── SubAdminDashboard.jsx
|   |   |   ├── SuperAdminDashboard.jsx
|   |   ├── CustomerDashboard.jsx
|   |   ├── ForgotPassword.jsx
|   |   ├── UserDashboard.jsx
|   |   ├── CampaignManagement.jsx
|   ├── services
|   |   ├── Authservices.js
|   ├── App.css
|   ├── App.jsx
|   ├── index.css
|   ├── main.jsx
 ├── tailwind.config.js
 ├── package.json
 ├── package-lock.json
```

Folder Structure Screenshot:

- To visualize the folder structure, use the tree command in your terminal (tree -a -I 'node_modules' to exclude node_modules) or capture a screenshot of your IDE's file explorer showing the above structure.

Feature-wise Component & API Flow

The application is organized into key features, each involving specific components and API interactions. Below is the flow for major features:

1. Authentication (Login/Forgot Password)

- **Components**:
  - Login.jsx: Renders the login page layout with logo and form.
  - LoginForm.jsx: Manages login form inputs, validation, and submission. o

    ForgotPassword.jsx: Handles password reset email requests.
  - AuthContext.jsx: Manages authentication state across the app.
- **API Flow**:
  - **Login**:
    - User submits credentials in LoginForm.jsx.
    - handleSubmit uses mock authentication (checks hardcoded credentials).
    - In a real implementation, calls loginUser from authservices.js to send POST request to /api/auth/login.
    - Stores token and user data in localStorage and updates AuthContext.
    - Redirects to role-specific dashboard (/super-admin-dashboard, /subadmin-dashboard, /user-dashboard, /customer-dashboard).

- **Forgot Password**:
  - User submits email in ForgotPassword.jsx.
  - Simulates API call (2-second delay) or calls forgotPassword from authservices.js to send POST to /api/auth/forgot-password.
  - Displays success or error message.

- **Flow Diagram**:
- User -> LoginForm.jsx -> authservices.js -> (/api/auth/login) -> AuthContext > Dashboard
- User -> ForgotPassword.jsx -> authservices.js -> (/api/auth/forgot-password) -> Success/Error UI

2. Dashboards (Super Admin, Sub Admin, User, Customer)

- **Components**:
  - Dashboard.jsx: Core dashboard with role-based metrics and charts.
  - SuperAdminDashboard.jsx: Wraps Dashboard.jsx with role="superadmin". ○ SubAdminDashboard.jsx: Wraps Dashboard.jsx with role="subadmin". ○ UserDashboard.jsx: Manages user data with filtering and actions. ○ CustomerDashboard.jsx: Manages customer data with filtering and actions.
  - Navbar.jsx: Provides navigation across dashboards.
- **API Flow**:
  - Uses mock data (superAdminMetrics, subAdminMetrics, initialUsers, initialCustomers).
- **Flow Diagram**:
- User -> App.jsx -> Routes -> Dashboard (SuperAdmin/SubAdmin) -> Fetch Metrics -> Render Charts/Cards
- User -> UserDashboard.jsx -> Filter Users -> Render Table/Cards
- User -> CustomerDashboard.jsx -> Filter Customers -> Render Cards

3. Navigation and Logout

- **Components**:
  - Navbar.jsx: Renders role-based navigation and logout button.

    - AuthContext.jsx: Handles logout logic by clearing localStorage.

- **Flow Diagram**:
- User -> Navbar.jsx -> handleLogout -> AuthContext.logout -> Clear localStorage -> Redirect to /login

Component Descriptions

Below is a detailed explanation of each file's purpose and functionality:

1. **Login.css**

- **Purpose**: Defines styles for the login page, including animations and responsive design.
- **Functionality**:
    - fadeIn animation for login container entrance. ○ shake animation for error messages. ○ Input focus effects with blue shadow.
    - Button hover (translate) and active states.
- **Usage**: Applied to Login.jsx and LoginForm.jsx via className.

2. **Login.jsx**

- **Purpose**: Renders the login page layout with a logo, title, and LoginForm.
- **Functionality**:
    - Displays a gradient logo and centered title. ○ Renders LoginForm within a shadowed card. ○ Includes a footer with copyright text.
    - Uses Tailwind CSS for responsive styling.
- **Dependencies**: LoginForm.jsx, Login.css.

3. **LoginForm.jsx**

- **Purpose**: Manages the login form, user input, and authentication logic.
- **Functionality**:
    - Handles email, password, "Remember Me," and show/hide password state. ○ Validates email against hardcoded list (superadmin@example.com, etc.).
    - Checks credentials for Super Admin (SuperPass123), Sub Admin (SubPass123), User (user123), and Customer (customer123).

    - Stores email in localStorage if "Remember Me" is checked. ○ Redirects to role-specific dashboards using useNavigate.
    - Displays error messages and loading spinner.
    - Uses icons (FaEnvelope, FaLock, FaEye, FaEyeSlash) for UI.
- **Dependencies**: react, react-router-dom, react-icons/fa.

4. **AuthContext.jsx**

- **Purpose**: Provides a context for authentication state management.
- **Functionality**:
    - Creates AuthContext and useAuth hook. ○ Manages user, isAuthenticated, and loading states. ○ Checks localStorage for authToken and userData on mount. ○ Provides login, logout, getToken, and updateUser methods.
    - Wraps app with AuthProvider to share context.
- **Dependencies**: react.

5. **Dashboard.jsx**

- **Purpose**: Renders role-specific dashboard content with metrics and charts.
- **Functionality**:
    - Displays superAdminMetrics (Total Users, Customers, Revenue, Campaigns, Active Sub Admins) or subAdminMetrics (Assigned Tasks, Reviewed Screenshots, Wallet Actions) based on role.
    - Uses Recharts for Super Admin charts (AreaChart for user growth, BarChart for campaign performance).
    - Uses Framer Motion for animated counters and card transitions.

      Includes Sub Admin quick action buttons (Screenshot Verification, Task Assignment).

6. **Dependencies**: react, recharts, framer-motion.
   Navbar.jsx

- **Purpose**: Renders a responsive navigation bar with role-based branding.
- **Functionality**:

    - Displays logo with role-specific initials (e.g., "SA" for admins).
    - Shows role-specific title and color (purple-600 for Super Admin, green-600 for Sub Admin).
    - Includes notification button (hidden on mobile) and user avatar.
    - Provides logout button to clear localStorage and redirect to /login.
- **Dependencies**: react, react-router-dom.

7. **SubAdminDashboard.jsx**
    - **Purpose**: Entry point for Sub Admin dashboard.
    - **Functionality**:
        - Renders Navbar with role="subadmin". o Renders Dashboard with role="subadmin".
        - Sets gray background for the page.
    - **Dependencies**: Navbar.jsx, Dashboard.jsx.

8. **SuperAdminDashboard.jsx**
    - **Purpose**: Entry point for Super Admin dashboard.
    - **Functionality**:
        - Renders Navbar with role="superadmin". o Renders Dashboard with role="superadmin".
        - Sets gray background for the page.
    - **Dependencies**: Navbar.jsx, Dashboard.jsx.

9. **CustomerDashboard.jsx**
    - **Purpose**: Manages customer data with filtering and actions.
    - **Functionality**:

        Displays mock customer data (initialCustomers) with name, email, plan, campaigns, wallet, and stats.
        - Supports filtering by name/email and plan (Bronze, Silver, Gold). o Renders expandable cards with action buttons (Approve Campaigns, Adjust Wallet, Change Plan, View Stats).

    - Uses dynamic badge colors for plans (e.g., yellow-500 for Gold).
- **Dependencies**: react.

Campaign Management.jsx

- **Stats Table:** Likes, Shares, Views (platform-wise)
- **Actions:** Approve / Reject, Assign Tasks, Pause / Edit
- **UX Enhancements:** Progress bars (performance), Campaign thumbnails (quick glance)

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10. ForgotPassword.jsx

- **Purpose**: Handles password reset requests.
- **Functionality**:
    - Renders email input form with a simulated API call (2-second delay). ○ Displays success message with email confirmation or error message. ○ Provides "Try again" and "Back to Sign in" options.
    - Includes logo, title, and footer.
- **Dependencies**: react, react-router-dom, react-icons/fa.

11. UserDashboard.jsx

- **Purpose**: Manages user data with filtering and actions.
- **Functionality**:
    - Displays mock user data (initialUsers) with name, email, location, age, gender, referral, and wallet.
    - Supports filtering by search, location, age, gender, and referral. ○ Renders table (desktop) or cards (mobile) with action buttons (View Profile, Assign Task, Verify User, Ban User, Adjust Wallet).
    - Updates user state for verification, banning, and wallet adjustments.
- **Dependencies**: react, react-icons/fa.

12. Authservices.js

- **Purpose**: Provides API service functions for authentication.

- **Functionality**:
    - Defines loginUser to send POST to /api/auth/login.

      Defines forgotPassword to send POST to /api/auth/forgot-password.
    - Uses environment-based API_URL (/api/auth for development).
    - Handles errors with meaningful messages.
- **Dependencies**: axios.

13. App.jsx

- **Purpose**: Configures client-side routing.
- **Functionality**:
    - Uses react-router-dom to define routes for /login, /super-admin-dashboard, /sub-admin-dashboard, /user-dashboard, /customer-dashboard, and /forgotpassword.
    - Renders components based on URL path.
- **Dependencies**: react-router-dom, all page components.

14. App.css

- **Purpose**: Placeholder for application-specific styles.
- **Functionality**: Not used in the provided code; can be used for custom styles outside index.css.
- **Dependencies**: None.

15. index.css

- **Purpose**: Defines global styles for the application.
- **Functionality**:
    - Imports Google Fonts (Inter) and Tailwind CSS. o Sets default font and background color (#f6f3f3).
    - Customizes input focus styles with blue ring.
- **Dependencies**: Tailwind CSS, Google Fonts.

16. main.jsx

- **Purpose**: Entry point for rendering the React application.

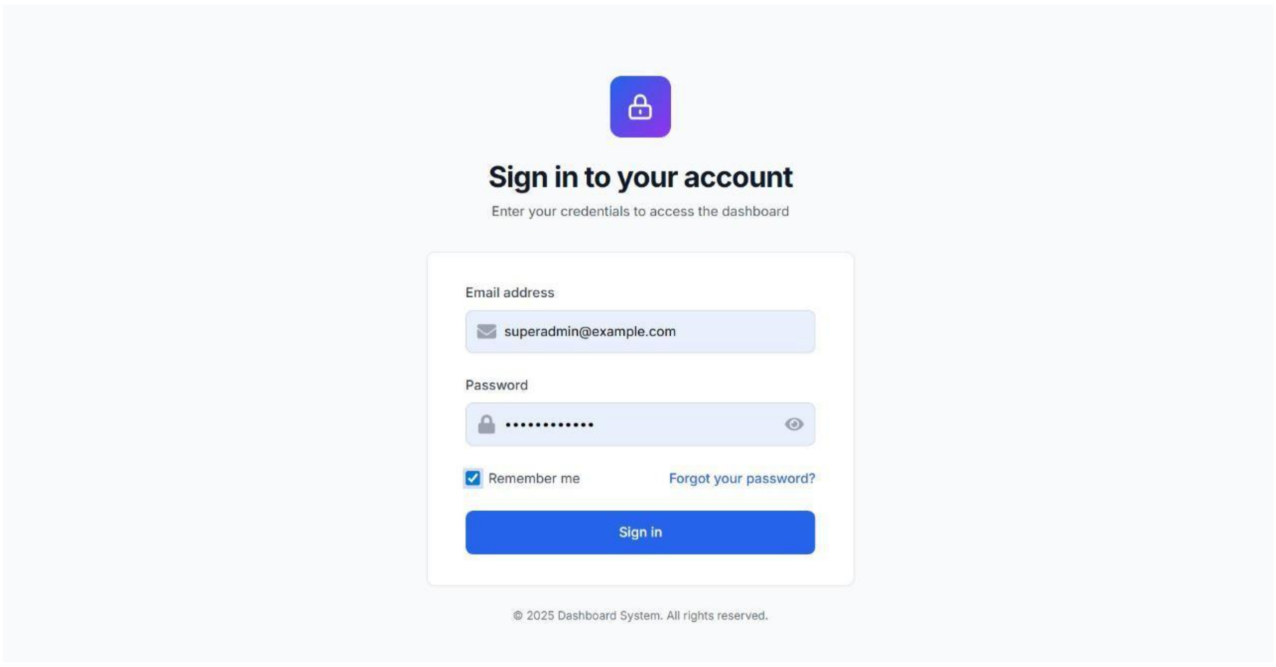
- **Functionality**:
    - Renders App.jsx into the DOM at #root.
    - Wraps App with AuthProvider for authentication context.

- **Dependencies**: react, react-dom, AuthContext.jsx, App.jsx.

17. tailwind.config.js

- **Purpose**: Configures Tailwind CSS.
- **Functionality**:
    - Specifies content files for Tailwind to scan (index.html, src/**/*).
    - Extends theme with custom colors (primary, secondary, accent, background) and font family (Inter).
- **Dependencies**: Tailwind CSS.
-

Screenshots



Sign in to your account

Enter your credentials to access the dashboard

Email address: superadmin@example.com

Password: ••••••••••••

[✓] Remember me

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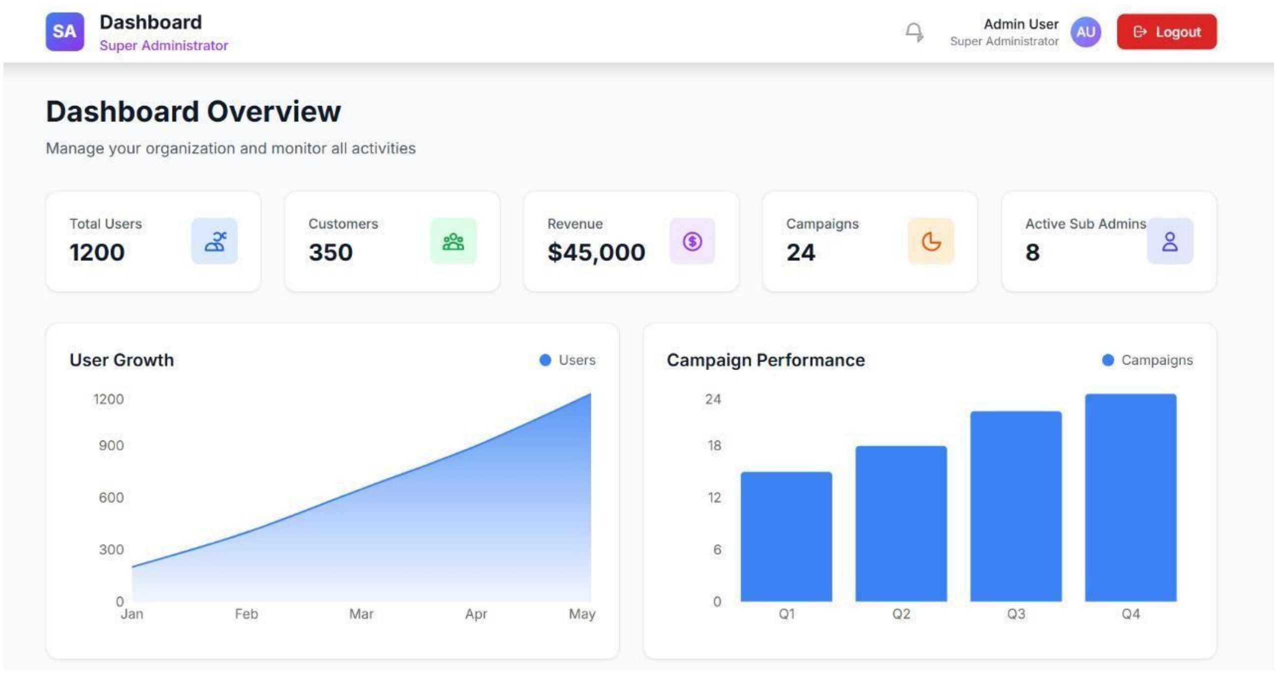
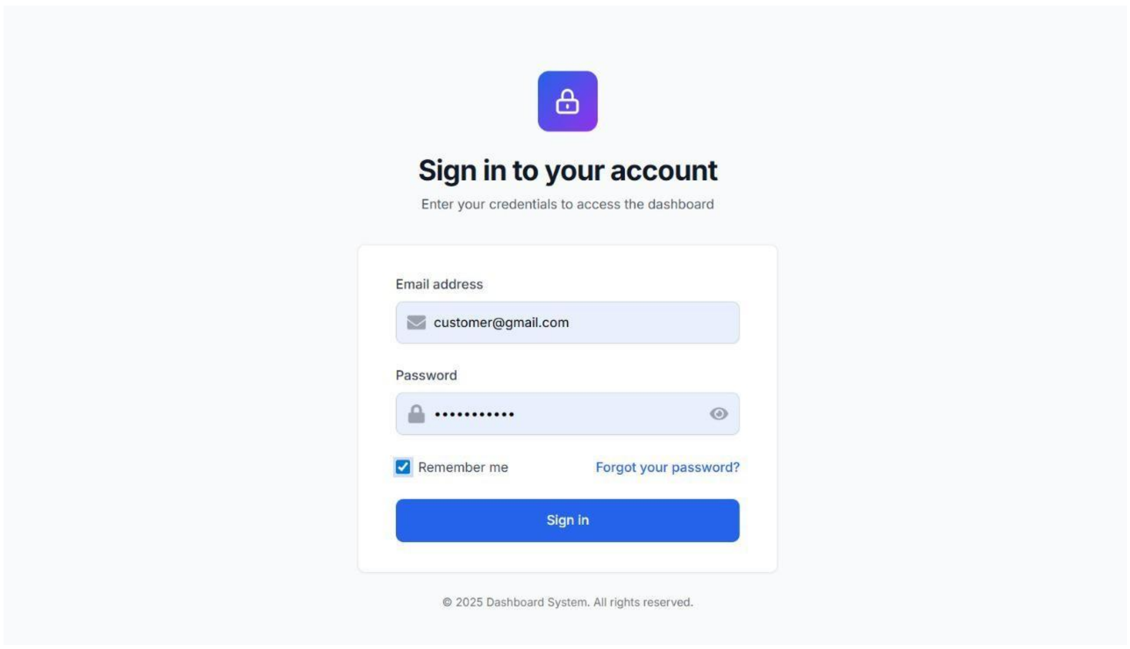


Dashboard Overview

Manage your organization and monitor all activities

Total Users	Customers	Revenue	Campaigns	Active Sub Admins
1200	350	$45,000	24	8



Sign in to your account

Enter your credentials to access the dashboard

Email address

customer@gmail.com

Password

•••••••••••

[✓] Remember me

Forgot your password?

Sign in

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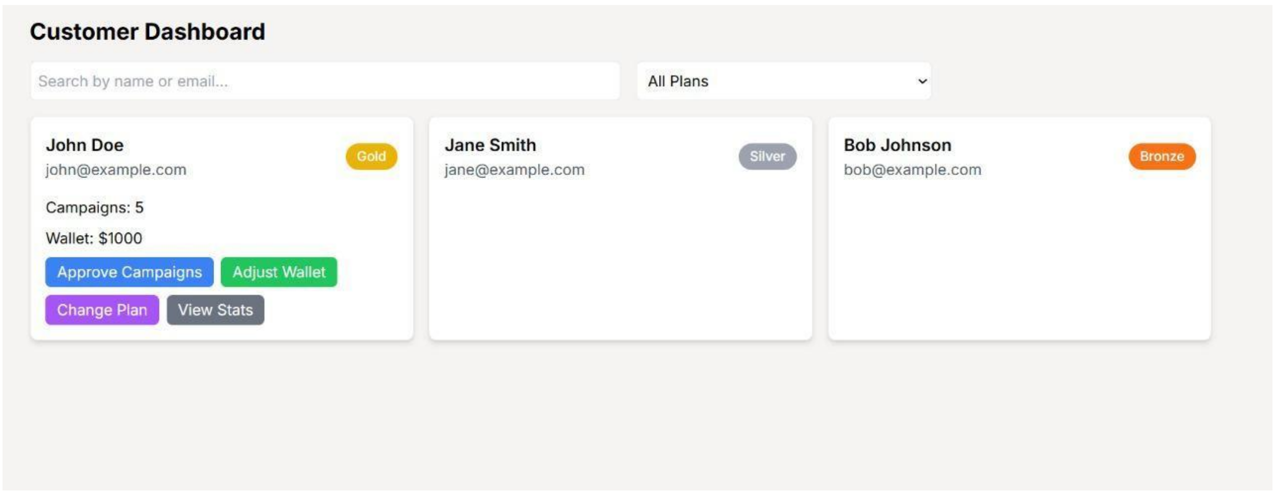


Customer Dashboard

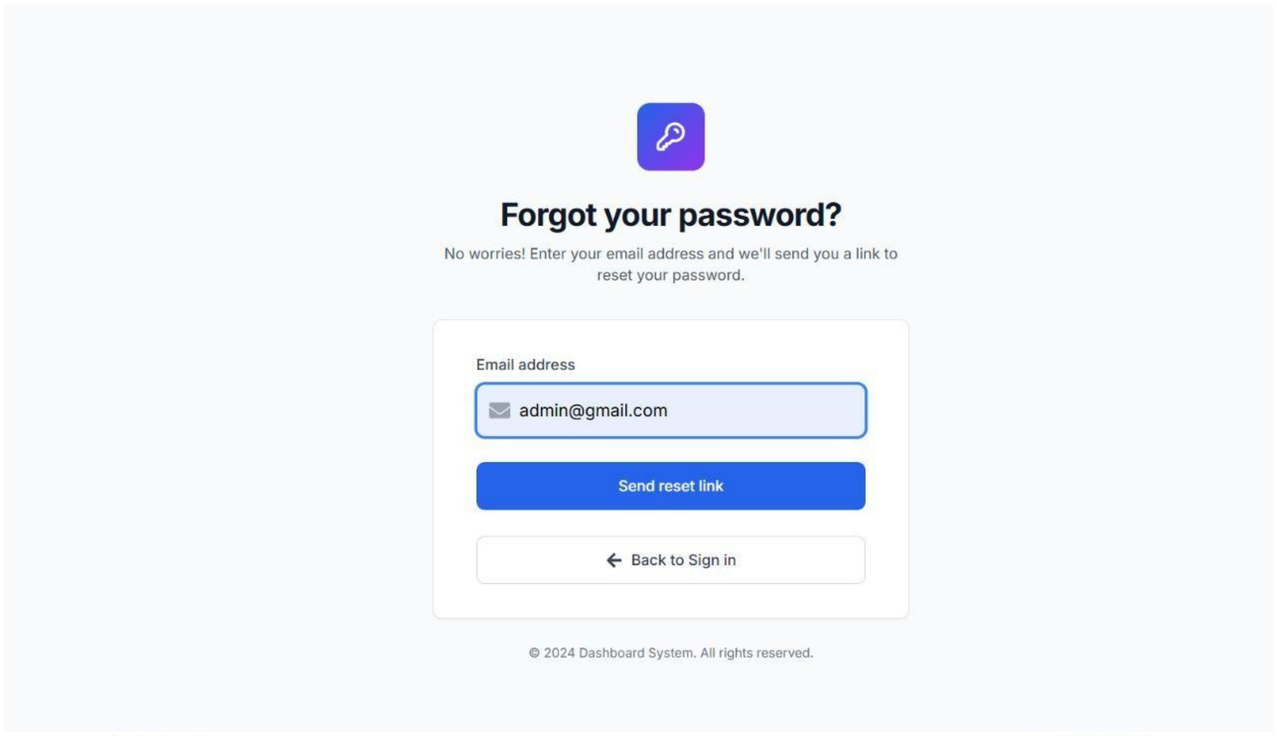
Search by name or email...

All Plans

John Doe
john@example.com
Gold
Campaigns: 5
Wallet: $1000

Jane Smith
jane@example.com
Silver

Bob Johnson
bob@example.com
Bronze



Forgot your password?

No worries! Enter your email address and we'll send you a link to reset your password.

Email address

admin@gmail.com

Send reset link

Back to Sign in

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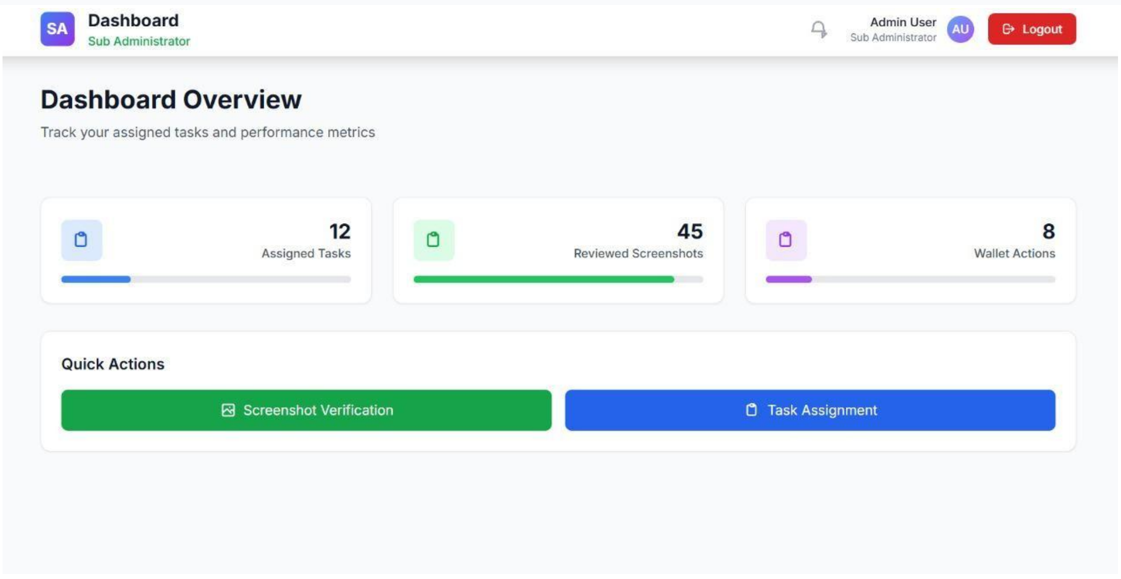

SA Dashboard
Sub Administrator

Admin User
Sub Administrator AU
Logout

Dashboard Overview

Track your assigned tasks and performance metrics

12 Assigned Tasks

45 Reviewed Screenshots

8 Wallet Actions

Quick Actions

Screenshot Verification

Task Assignment

How to Run the Project

Follow these steps to set up and run the project locally.

Steps

1. **Clone the Repository** (if applicable):
2. git clone <repository-url>
3. cd login-screen1
4. **Install Frontend Dependencies**:
5. npm install

Installs dependencies: react, react-router-dom, recharts, framer-motion, react-icons, axios, tailwindcss.

8. npm run dev o Starts the Vite development server at

   http://localhost:5173.

   - If using Create React App, use npm start (port http://localhost:3000).

7. **Access the Application**:

   - Open http://localhost:5173 in a browser.
   - Use credentials:
     - Super Admin: superadmin@example.com / SuperPass123
     - Sub Admin: subadmin@example.com / SubPass123
     - User: user@gmail.com / user123
     - Customer: customer@gmail.com / customer123

Conclusion

Challenges Faced

- **Mock Data**: Reliance on hardcoded data (initialUsers, initialCustomers, mock credentials) limits dynamic functionality.
- **Authentication**: LoginForm.jsx uses mock authentication, requiring integration with authservices.js for real API calls.
- **State Management**: AuthContext is sufficient for small apps for complex state handling.