

Code Document

Tech Stack

Backend

- **Runtime:** Node.js
- **Framework:** Express.js
- **Database:** MongoDB
- **Libraries:**
 - jsonwebtoken (JWT): For authentication and session management.
 - Stripe: For payment processing and webhook handling.
 - dotenv: To manage environment variables securely.
 - cors: To enable cross-origin resource sharing.
 - bcrypt.js: For password hashing.
 - Mongoose: To model and interact with MongoDB.

Frontend

- **Framework:** React.js
- **State Management:** Redux with Redux Toolkit
- **Styling:** Tailwind CSS
- **Libraries:**
 - Redux Toolkit: For managing slices and asynchronous actions.
 - React Router DOM: For navigation and route management.
 - Axios: For API communication.

Backend API Endpoints

Authentication

- POST /api/auth/superadmin/register: Register a Super Admin.
- POST /api/auth/superadmin/login: Super Admin login.
- POST /api/auth/admin/register: Register an Admin and create an organization.
- POST /api/auth/user/login: Login for Admins and Users.
- POST /api/auth/user/logout: Logout for Admins and Users.

Plan Management

- POST /api/plans: Create a new plan (Super Admin only).
- PUT /api/plans/:id: Update an existing plan (Super Admin only).
- DELETE /api/plans/:id: Delete a plan (Super Admin only).
- GET /api/plans: Retrieve all available plans.

Organization Management

- GET /api/organizations: Retrieve all organizations (Super Admin only).
- GET /api/organizations/:id: Retrieve details of a specific organization.
- PUT /api/organizations/:id/plans: Admin purchases or updates a plan for their organization.

User Management

- POST /api/users: Add a new user (Admin only, within plan limits).
- PUT /api/users/:id: Update user details (Admin only).
- DELETE /api/users/:id: Remove a user (Admin only).
- GET /api/users/:id: Retrieve details of a specific user.

Stripe Integration

- POST /api/payments/checkout: Initiate a Stripe checkout session.
- POST /api/payments/webhook: Handle Stripe payment confirmation and update the database.

Frontend API Endpoints

Redux Slices

- **authSlice:**
 - Handles authentication state and JWT token storage.
 - Manages login, logout, and registration actions.
- **planSlice:**
 - Tracks available plans and the currently active plan.
- **userSlice:**
 - Handles user-specific data like profile updates and organization roles.
- **paymentSlice:**
 - Manages checkout sessions and payment status updates.

Service Files

- **authService.js:**
 - Functions for registering, logging in, and logging out users.
- **planService.js:**
 - Fetches plans and handles plan-related actions.
- **userService.js:**
 - CRUD operations for users.
- **paymentService.js:**
 - Integrates Stripe APIs for checkout and payment updates.

Frontend Pages

1. **Landing Page:**
 - Displays available subscription plans for new users.

- Publicly accessible.
- 2. **Role-Based Dashboards:**
 - **Super Admin:**
 - Manage plans.
 - Monitor and review all organizations.
 - **Admin:**
 - Purchase subscription plans.
 - Manage users within the organization.
 - View organization details and handle payments.
 - **User:**
 - View organization details.
 - Access active subscription details.
- 3. **Plan Management:**
 - Browse and purchase plans.
 - Upgrade current plans as required.
- 4. **Cart and Checkout:**
 - Integrated with Stripe for seamless payment flow.
- 5. **Order History:**
 - Displays past orders and active subscriptions for users.

Frontend API Routes

Public Routes

- **/**
The main landing page for all users.
- **/user/login**
Login page for all users.
- **/admin/register**
Registration page for admins.
- **/superadmin/register**
Registration page for superadmins.

Protected Routes

(These routes are protected by the RoleRoute component, ensuring access based on roles.)

Admin Routes

- **/admin/dashboard**
Admin's main dashboard.
- **/admin/plans**
List of available plans for admins.
- **/admin/orders**
Order history page for admins.

- **/admin/cart**
Shopping cart for admins.
- **/admin/checkout**
Checkout page for admins (integrated with Stripe).

Superadmin Routes

- **/superadmin/dashboard**
Superadmin's main dashboard.
- **/superadmin/plans**
List of available plans for superadmins.
- **/superadmin/organizations**
View and manage organization details.

User Routes

- **/user/dashboard**
User's personal dashboard.

Fallback Route

- *****
Redirects any undefined routes back to the landing page.