# 🏢 Superadmin Module: White-Label Manager

## 🎯 Objective

Enable the SaaS platform to operate in fully white-labeled mode per brand/tenant — allowing each customer to offer the solution as their own branded platform. This increases perceived ownership, premium appeal, and market flexibility.

## 🧩 Core Capabilities

### 1. 🔖 Brand Identity Manager

* Allow each brand to upload and manage:
  + Logo (horizontal and square)
  + Favicon
  + Primary/Secondary color palette
  + Typography (Google Fonts)
  + App/Meta Title
  + Custom Footer Text or Copyright

### 2. 🌐 Custom Domain Mapping

* Each tenant can map their own subdomain (e.g., portal.brandname.com)
* SSL certificate auto-provisioned (via Let’s Encrypt)
* CNAME setup guide UI + verification check

### 3. 🧠 AI Voice Customizer

* Inject each brand’s tone/voice into AI outputs across:
  + Blog content
  + Inbox replies
  + Campaign captions
  + Product suggestions
* Support brand instructions for LLM prompt injection (stored per tenant)

### 4. 🛠️ UI Skin Engine

* Each white-labeled portal adapts to brand’s colors/logo
* Login screen branding + welcome copy
* Navbar + dashboard elements auto-match the tenant

### 5. 📦 Optional Feature Toggling

* SaaS owner (superadmin) can enable/disable:
  + Modules per tenant (e.g., Gamification, Blog)
  + Advanced/Pro features (e.g., SEO auto refresh)
  + Usage limits and quotas per plan tier

### 6. 🔐 Access Control Labels

* White-labeled tenants see only their own users, data, and branding
* No OpenAI or platform branding unless explicitly opted in

### 7. 📬 Custom Email Sender + Templates

* Brands can:
  + Set their own SMTP or verified sending email
  + Customize email headers, footers, and disclaimers
  + Override system-wide templates with branded ones

### 8. 📱 App Store + SDK Branding (Optional Phase 2)

* Support for:
  + White-labeled mobile apps (iOS/Android)
  + App icons, splash screen, login theme
  + Embed widgets with per-brand tracking ID

## 👨‍🔧 Superadmin Controls

* 🔁 Force Reset Branding
* 🧪 Preview Mode: See what each tenant UI looks like
* 🧰 Diagnostics: Detect missing favicon, misconfigured SMTP, broken CNAME
* 🚨 Rebrand Reset Warnings if switching tenant visuals

## 🧱 Tech Architecture

* **Frontend**: Tailwind + React with dynamic theme injection
* **Storage**: S3 / Firebase for brand assets
* **Domains**: Cloudflare API for DNS checks (optional)
* **Backend**: Tenant context injection for theme overrides
* **DB**: tenant\_settings, branding\_assets, custom\_prompts, email\_templates tables

## 🔄 Integration Points

* AI Prompt System → Inject brand voice into replies
* Email System → Brand template overrides
* Admin Panel → Module toggles + subscription plans
* Mobile App Builder (optional)

## ✅ Benefits

* Higher brand affinity
* Reseller or agency appeal
* Trust boost for end users
* Unlocks white-label business model

## 📈 Future Extensions

* 🔄 Multi-brand toggler (agencies managing >1 brand)
* 🧩 Per-feature micro branding (e.g., watermark per post)
* 🛒 Marketplace listing as white-label solution
* 🖼️ Brand asset CDN delivery for speed

This module enables powerful white-label SaaS deployments while preserving system stability, control, and upgrade consistency.