# 🛠️ Developer Toolkit Module (API, Webhooks, Docs)

## ✅ Module Overview

The Developer Toolkit provides all external developers, partners, or brand-side engineers with robust tools to integrate, extend, or automate Lavishta SaaS features. It offers programmatic access via REST APIs, event-driven Webhooks, dynamic API documentation, and testing playgrounds. This makes the platform open for modular innovation while remaining secure and controlled.

## 🎯 Goals

* Enable external integrations with WooCommerce, Shopify, CRM tools, or custom dashboards
* Empower agencies to build their own branded extensions
* Support deeper automation via events and API triggers
* Maintain security with scoped API keys and audit logs

## 📦 Toolkit Contents

### 1. **REST API Gateway**

* Secure, versioned API base (e.g., https://api.lavishta.ai/v1/)
* OAuth2 or token-based access
* Supports CRUD actions on key modules:
  + Campaigns
  + Blogs
  + Inbox Replies
  + Customers
  + Orders (read-only)
  + UGC Points + Leaderboard
  + Product Bundles
  + Loyalty Rewards

#### Example Endpoints:

* GET /campaigns?brand\_id=123
* POST /ugc-replies
* GET /customers/{id}/profile

### 2. **Webhook Manager**

* Define and register custom Webhook endpoints per brand
* Events supported:
  + campaign.created
  + ugc.submitted
  + order.placed
  + points.redeemed
  + customer.linked
* Retry with exponential backoff
* Signature verification + timestamp check

### 3. **OAuth App Platform (Multitenant)**

* Brands or agencies can create/manage OAuth apps
* Scopes:
  + ugc:read, campaign:write, order:read, etc.
* Per-brand app keys and secrets
* Admin approval required to publish
* Throttling & quota control via superadmin

### 4. **Interactive Docs + Playground**

* Swagger UI with live API tryout per brand
* Auto-updated OpenAPI spec
* Code snippets: Python, JS (Axios), PHP, cURL
* Sample request builders

### 5. **Plugin SDK + Quickstarts**

* NPM package for frontend widgets (e.g., leaderboard)
* Starter templates:
  + Custom inbox bot
  + UGC display on brand sites
  + Reward points tracker embed
* WordPress plugin skeleton (for Woo/Shopify hybrid use)

## 🔐 Security

* Scoped tokens with TTL
* Refresh tokens + revoke mechanism
* IP whitelisting (optional)
* Logged per API key usage
* Alert on unusual patterns or abuse

## 🧠 Superadmin Controls

* Set per-brand API limits (daily, hourly)
* Approve/reject webhook registrations
* View logs by:
  + IP
  + Brand
  + Endpoint
  + Error type

## 💡 Use Cases

* Brand devs auto-publish campaign data to external dashboards
* Resellers sync UGC points to CRM
* Shopify brand auto-issues coupons on ugc.submitted
* Affiliate tools track shares/clicks via webhook

✅ Document complete. Let me know if you’d like to export, illustrate the API Explorer UI, or generate SDK scaffolding next.