# 🎥 Module: Reels / Shorts Auto-Suggester

## 🎯 Purpose

Enable brands to generate engaging short-form video content (Instagram Reels, YouTube Shorts, TikTok) automatically from their: - Product catalog - Blog posts - UGC campaigns - Trending beauty themes

The goal is to boost organic reach, engagement, and brand recall without the need for manual video editing.

## 📦 Core Features

### 1. Smart Topic Detection

* Sources:
  + Recent blogs
  + Popular products
  + Viral UGC comments
  + Google Trends + seasonal beauty search terms
* Classifies into:
  + Tutorial ideas
  + Product hacks
  + Before/after transformations
  + Ingredient spotlights

### 2. Storyboard Generator (AI)

* Uses blog/product content to generate a 5–10 step storyboard:
  + Hook line (text + voiceover)
  + Visual suggestion (image or video type)
  + On-screen text / subtitle
  + CTA suggestion
* All framed under: 15–60 seconds formats

### 3. Canva-Based Auto Visuals (Default Mode ✅)

* Automatically selects template for each step of the storyboard
* Pulls product image, blog banner, UGC photo, or stock placeholder
* Generates animated text and transitions
* Adds background music (from a royalty-free pool)
* Exports final MP4 for manual or auto-publishing

### 4. Manual Override + Editing UI (Optional for Premium Brands)

* Drag and drop storyboard blocks
* Change visuals
* Change on-screen text or caption
* Upload voiceover or narration

### 5. Auto Caption Generator

* From blog summary or GPT
* Uses Reels-optimized, scroll-stopping copy
* Includes CTA, hashtags, and emojis

### 6. Auto-Post + Scheduler (Connected with Poster Module)

* Schedule reel uploads to IG/FB/TikTok (via API or reminder)
* Modes:
  + Manual upload
  + Assisted (download + email alert)
  + Auto (for FB/IG via API + preset time slot)

## 🧠 AI Capabilities

* GPT-4 Turbo: for summarizing, rewording, scripting
* Vision AI: (optional) for scanning UGC/photos and suggesting angles
* Trends Analyzer: maps with real-time queries via Google Trends API

## 🛠️ How to Build It

### Stack

* Backend: Node.js, Python, FFmpeg, Canva API, OpenAI
* Frontend: Next.js + Tailwind with rich video preview UI
* Storage: AWS S3 or GDrive export

### Tools/APIs

* Canva API: for video/image rendering
* GPT-4: storyboard + script generation
* Google Trends API: topic ranking
* FFmpeg: video composition + audio merging

### DB Tables

* reel\_templates
* reel\_requests
* reel\_outputs
* scheduled\_reels

### API Endpoints

* POST /reel/suggest → Suggest new reels from blogs/products
* POST /reel/build → Generate visuals based on storyboard
* GET /reel/history → List generated shorts per brand
* POST /reel/schedule → Connect to auto-posting queue

## 🔒 Admin + Superadmin Controls

* Set monthly reel generation quota
* Enable/disable video editing interface
* Logs of auto vs manual edits
* Review usage + analytics dashboard

## 🔗 Connected Modules

* Blog Engine → generates input for reels
* Product Brain → pulls metadata, images
* Auto Poster → schedules output
* Gamification → rewards best-performing videos

## 📈 Benefits

* Boost reach on IG/FB/TikTok
* Repurpose blog/product content as videos
* Save editing/design effort
* Increase discoverability through reels + hashtags

✅ This module will be included in the base platform but image/video rendering engine (Canva API) will be treated as an add-on.