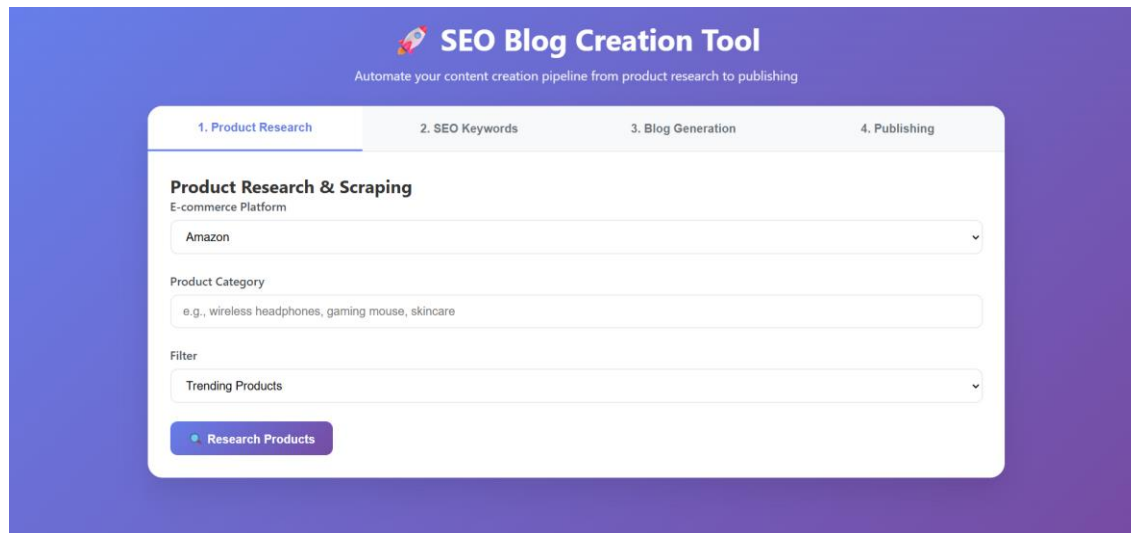


Report Task 2 : SEO Blog Post Creation Tool

Objective

The goal of this project is to create an AI-based tool that can automatically scrape trending products from e-commerce websites, find relevant SEO keywords, generate short blog posts using those keywords, and publish the posts on platforms like Medium, WordPress, or a personal website.



The screenshot shows the 'SEO Blog Creation Tool' interface. At the top, there's a rocket icon and the title 'SEO Blog Creation Tool' with the subtitle 'Automate your content creation pipeline from product research to publishing'. Below this is a progress bar with four steps: '1. Product Research' (active), '2. SEO Keywords', '3. Blog Generation', and '4. Publishing'. The main content area is titled 'Product Research & Scraping' and contains three input fields: 'E-commerce Platform' (with 'Amazon' selected), 'Product Category' (with 'e.g., wireless headphones, gaming mouse, skincare' as a placeholder), and 'Filter' (with 'Trending Products' selected). A 'Research Products' button is at the bottom.

Pipeline Overview

1. Product Scraping

- **Source:** E-commerce platforms (e.g., Amazon).
- **Implementation:**
 - The tool scrapes product names, prices, ratings, and short descriptions.
 - `scraper.py` or equivalent file handles this.
 - Libraries used: `requests`, `BeautifulSoup`, `fake_useragent`.

2. SEO Keyword Research

- **Tool Used:** Google Keyword Planner / Ubersuggest (manual input or semi-automated).

- **Process:**
 - For each product, 3-4 relevant keywords are identified.
 - Keywords are stored and used in the blog content.
 - Optionally automated via keyword scraping or static lookup.

3. AI Blog Content Generation

- **Implementation:**
 - Uses OpenAI API (or another model) to generate blog posts of 150-200 words.
 - Prompts are crafted to include product features and SEO keywords naturally.
 - Output stored in /blogs folder or database.
 - Script: generate_blog.py

4. Blog Publishing

- **Approach:**
 - Generated content can be:
 - Copied to Medium manually or via API.
 - Posted to a WordPress site using XML-RPC API.
 - Displayed in a self-hosted site via Flask/Django interface.
 - Automation for posting can be extended.

Component	Technology / Library
UI Layout	HTML5
Styling	Tailwind CSS (via CDN), Google Fonts (Inter)
Scripting	Vanilla JavaScript
AI Backend	Google Gemini 2.0 Flash API (generativelanguage.googleapis.com)
Web Framework	Flask (Python)
Web Scraping	BeautifulSoup, requests, fake_useragent
AI Blog Generation	OpenAI API (<i>optional / alternative to Gemini</i>)
Environment Variables	dotenv
UX Features	Loading spinner, input validation, error/info message boxes
Clipboard Utility	<code>document.execCommand()</code> for copy-to-clipboard

Deployment (Optional)	GitHub, Render/Heroku (can be integrated)
------------------------------	---

Tools & Their Functionality

Tool/Component	Functionality
Product Scraper (scraper.py)	Scrapes product data (title, price, rating, etc.) from e-commerce sites like Amazon.
Keyword Research (Manual/API)	Helps identify 3–4 SEO-friendly keywords for each product (can use Google Keyword Planner or Ubersuggest).
AI Blog Generator (generate_blog.py or API call)	Uses Google Gemini 2.0 Flash API to generate a 150–200 word blog post using the product details and keywords.
Web Interface (app.py, index.html)	Provides a simple UI to input product data or trigger the automation process.
Styling (Tailwind CSS, Inter font)	Makes the frontend responsive and visually clean.
JavaScript Scripts (script.js)	Adds interactivity such as form validation, copy-to-clipboard, and dynamic messages.
UX Elements (Loader, Alerts)	Improves user experience with loading indicators and informative message boxes.
Blog Storage (/blogs/ folder)	Stores generated blog content locally for review or publishing.
Deployment Tools (Optional)	GitHub for version control, Render/Heroku for live hosting (optional).

Here are the screenshots showcasing working

- 1)Product Research and Scraping
- 2)SEO Keyword Search
- 3)AI Blog Post Generation
- 4)Publishing Blog Post

Product Research & Scraping

E-commerce Platform

Amazon

Product Category

wireless

Filter

Trending Products

🔍 Research Products

Found 4 trending products in wireless

🖼️ Product Image

wireless Bluetooth Headphones
with Noise Cancellation

\$79.99

🖼️ Product Image

wireless Office Chair with Lumbar
Support

\$199.99

🖼️ Product Image

wireless Fitness Tracker with Heart
Rate Monitor

\$129.99

🖼️ Product Image

wireless Skincare Set - Anti-Aging
Cream & Serum

\$89.99

AI Blog Post Generation

Writing Tone

Professional

Word Count

150-200 words

Call-to-Action Type

Encourage Purchase

🔥 Generate Blog Post

Blog post generated successfully! Word count: ~185 words

Wireless Bluetooth Headphones with Noise Cancellation: The Ultimate Guide for 2024

Looking for the perfect wireless bluetooth headphones? You've come to the right place! In today's competitive market, finding quality products that deliver exceptional value can be challenging.

The Wireless Bluetooth Headphones with Noise Cancellation stands out as a remarkable choice for anyone seeking wireless bluetooth. With its impressive 4.5-star rating from over 2847 satisfied customers, this product has proven its worth in the marketplace.

What makes this wireless bluetooth headphones special? First, its innovative design addresses common pain points that users face with similar products. The build quality exceeds expectations, while the competitive price point of \$79.99 makes it accessible to a wide range of consumers. Customer feedback consistently highlights the product's reliability and performance. Many users report significant improvements in their daily

SEO Keyword Research

Selected Product

Wireless Bluetooth Headphones with Noise Cancellation
\$79.99 | ⭐ 4.5

Keyword Research Tool

Google Keyword Planner

Target Audience

fitness

Generate Keywords

Generated 8 SEO-optimized keywords

Primary Keywords (High Volume, Low Competition)

wireless bluetooth headphones (2.2K/mo)

best wireless bluetooth (1.8K/mo)

wireless review (1.5K/mo)

top bluetooth 2024 (980/mo)

Long-tail Keywords

wireless bluetooth for fitness (720/mo)

affordable wireless bluetooth headphones (650/mo)

wireless buying guide (540/mo)

bluetooth comparison (420/mo)

Publish Your Blog Post



WordPress

Self-hosted or WordPress.com



Medium

Built-in audience



Blogger

Google's platform



Ghost

Modern publishing

WordPress Publishing Settings

WordPress Site URL

https://yourblog.com

Username

admin

Application Password

Generated app password

Publishing...

Successfully published to Wordpress!

Blog URL: https://wordpress.com/your-blog-post-url

Status: Published and indexed