

TASK 2 REPORT

AI-Based SEO Blog Post Creation Tool

Introduction

The objective of Task-2 was to design and implement an **AI-based SEO Blog Post Creation Tool** that automates the process of selecting a product from an e-commerce platform, researching SEO keywords, generating high-quality blog content, and preparing it for publication on a blogging platform.

The system focuses on automation, scalability, and reliability, ensuring that blog content can be generated dynamically without manual intervention.

Objective

The main objectives of this task were:

- To automatically fetch trending or best-selling products from an e-commerce source
- To generate SEO-friendly keywords for the selected product
- To create a **150–200 word SEO-optimized blog post** using AI
- To output the blog in a reusable and publish-ready format
- To ensure the pipeline remains functional despite scraping or API limitations\

System Overview

The system follows a fully automated pipeline:

Product Selection → SEO Keyword Generation → Blog Content Creation → Markdown Output

To improve robustness and real-world applicability, a **hybrid strategy** is adopted for product sourcing and content generation.

Detailed Pipeline Explanation

◇ Step 1: Product Selection from E-commerce Platform

- The system fetches product data from a publicly accessible e-commerce API (FakeStore API).
- This API provides realistic product information such as:

- Product name
- Category
- Description
- On each execution, a random product is selected to ensure content variability.

Why this approach?

Major platforms like Amazon and eBay use strong anti-scraping protections. Using a public e-commerce API ensures:

- Ethical data access
- Reliable execution
- Dynamic product selection on every run

This approach satisfies the task requirement of sourcing products from an e-commerce platform while maintaining system stability.

◇ Step 2: Automated SEO Keyword Research

- SEO keyword research is performed using an AI-assisted approach powered by Google Gemini.
- Google Gemini is used to analyze the selected product and generate 3–4 high-intent SEO keywords
- The generated keywords are:
 - Short and relevant
 - Purchase-oriented
 - Naturally integrable within blog content
- **Why Google Keyword Planner / Ubersuggest Are Not Directly Used:**
- Although tools like Google Keyword Planner and Ubersuggest are industry-standard for SEO research, they do not provide free or publicly accessible APIs suitable for automated integration.
- To overcome this limitation, the system uses Google Gemini as an intelligent proxy, simulating real-world SEO research by:
 - Understanding product intent

- Identifying buyer-focused search terms
- Generating keywords similar to those suggested by professional SEO tools
- This approach ensures:
 - Full automation
 - Zero dependency on paid tools
 - Compliance with project constraints

◇ Step 3: AI-Based Blog Content Generation

- The system generates a **150-200 word blog post** using Google Gemini.
- Inputs provided to the AI:
 - Product name
 - Product category
 - Generated SEO keywords

Content guidelines enforced:

- Natural keyword placement (no stuffing)
- Informative and promotional tone
- Clear call-to-action
- SEO-friendly structure

◇ Step 4: Markdown Output Generation

- The final blog is saved as a **Markdown (.md) file**.
- The output includes:
 - Blog title
 - Blog content
 - SEO keywords section

Markdown format allows easy publishing on platforms such as:

- Medium
- WordPress
- GitHub Pages

Output & Results

- A dynamic SEO blog post is generated on every execution.
- Each run selects a **different product**, resulting in unique content.
- The blog is successfully published on a blogging platform (Medium).
- The system produces production-ready, SEO-optimized content.

Output File:

Task-2/outputs/blog_post.md

Blog link: <https://medium.com/@anshabrol101/1a94985c09d8>