Automated Blog Article Creation Using Agentic Method with LLMs

Objective

To create an automated system for generating news/story/narrative blog articles on given topics using an agentic method with large-language-models (LLMs). The system will involve three types of agents: researcher, writer, and editor.

Project Scope

1. **Researcher Agent:** Gathers the latest news and trends in a specified industry, producing a comprehensive report.
2. **Writer Agent:** Crafts a compelling narrative based on the researcher's report.
3. **Editor Agent:** Refines and finalizes the content, ensuring accuracy and coherence.

Frameworks and Libraries

- **CrewAI Framework:** For creating and managing the agents and their tasks.
- **LangChain Framework:** For supporting various LLMs and ensuring flexibility in model selection during development phase and comparisons later.

APIs and Tools

- **SerperDevTool():** Utilizes the Serper API for Google search to extract relevant news.
- **googleGemini-1.5-flash:** The primary LLM used for content generation (cost-effective and currently free).

Workflow

Step 1: Researcher Agent

Task: To gather the latest news and trends on a provided topic.

Tools:

- **SerperDevTool():**
  - Uses Serper API to conduct Google searches.
  - Extracts top 10-20 relevant articles.

Process:

1. **Query Formation:** Generate queries related to the given topic.

2. **API Call:** Use SerperDevTool() to fetch search results.
3. **Output:** Compile the extracted information into a 2 paragraph comprehensive report.

Step 2: Writer Agent

Purpose: To create a smooth, accurate, and engaging narrative.

Tools:

- **googleGemini-1.5-flash:**
    - Generates content based on the research report.

Process:

1. **Input Report:** Take the researcher's report as input.
2. **Content Generation:** Use googleGemini-1.5-flash to generate a blog article.

Step 3: Editor Agent

Purpose: To refine and finalize the blog content.

Tools:

- **CrewAI Framework:** For managing the editing process.

Process:

1. **Review Content:** Analyze the writer's output.
2. **Edit and Update:** Make necessary changes for clarity, coherence, and accuracy.
3. **Finalization:** Ensure the final piece is polished and ready for publication.

Publishing

- LinkedIn and a personal blogging website via Sprout Social's automated scheduling API (free 30-day trial).
- Publish one blog each week

Conclusion

This project leverages an agentic method using LLMs and the CrewAI framework to automate the creation of news/narrative blog articles. By employing researcher, writer, and editor agents, the system ensures the generation of accurate, engaging, and polished content based on the latest industry trends.