

## Agentic AI Assignment

Thank you for your interest in Tech9. We ask that all of our AI engineering candidates participate in a short take home assignment. Below are the requirements. Please take time to complete each requirement and return it to me within 2 days. Please reach out if you have any questions.

### Assignment: Competitive Blog Post Generator (Multi-Agent System)

#### Objective

Develop a competitive blog post generator using any agentic AI framework of your choice. Examples include **LangGraph**, **CrewAI**, **LangChain**, **LlamaIndex**, **SmolAgents**, or similar. The system should be capable of **planning, researching, and writing a high-quality blog post**.

#### Requirements

##### 1. Framework Flexibility

Choose **any modern agentic AI framework** (e.g., CrewAI, LangGraph, LangChain, LlamaIndex, SmolAgents).

##### 2. Competitive Blog Generation Focus

The output should demonstrate a **competitive advantage**, such as:

- SEO-optimized content
- A unique tone, voice, or structure
- Strong domain-specific insights

##### 3. Multi-Agent Architecture

Define **clear responsibilities** for each agent (e.g., *Outline Generator*, *Research Analyst*, *Writer*, *Editor*).

Show **orchestration**—agents must collaborate either in **sequence** or via a **hierarchical flow**.

##### 4. Tool Integration

Integrate **at least one external tool** or data source in the workflow. Examples:

- Web search API
- Keyword analyzer
- Persistent memory store
- Any domain-specific API

##### 5. Observability & Configurability

Include **monitoring mechanisms** to observe agent workflows.

Allow **non-technical users** to adjust prompts, parameters, or behavior (e.g., via a config file or UI).

## 6. Documentation

Provide a **README** covering:

- Architectural choices and rationale

- The chosen framework and why it was selected

- How agents collaborate

- What makes your solution competitive

You can submit the solution on the google drive or Github location