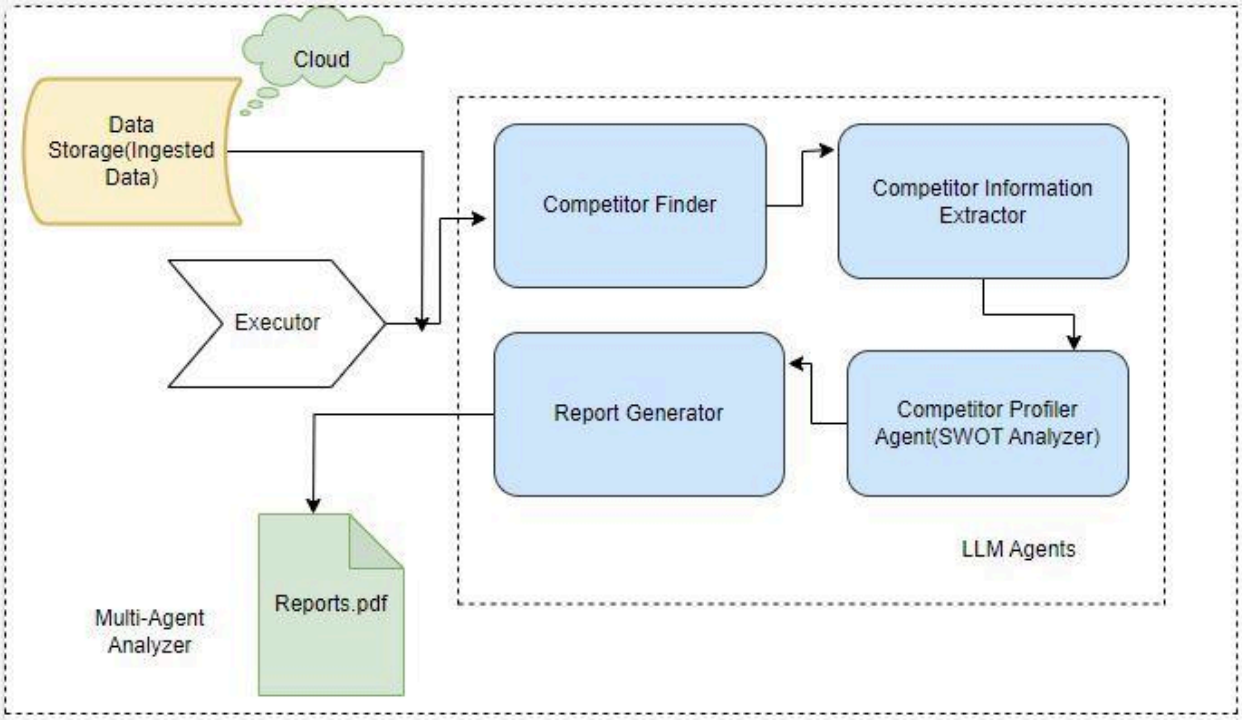


Fig:1 Multi Agents LLM Architechture

## Justification for Choosing vllm:

Compared to all other agentic llm, vllm is offered below benefits

- ☐ A high-throughput
- ☐ and memory-efficient inference
- ☐ and serving engine for LLMs

## Data Handling Strategies:

Designing the web scrapper for extracting data from two different sources such as google and g2. For data quality and handling missing or conflicting data, I used another agent by giving the input as prompts.

## Alternative Approach:

Plenty of alternatives include langchain, crewAI, OpenAI ChatGPT, llama,  and so on.

| Feature | LangChain | CrewAI | OpenAI ChatGPT | LLaMA | DeepSeek |
|---|---|---|---|---|---|
| **Purpose** | Framework for LLM applications | Multi-agent AI framework | General-purpose chatbot & API | Open-source LLM | Open-source LLM (China-based) |
| **Multi-Agent Support** | Partial (can orchestrate) | Yes (designed for multi-agent systems) | No direct support | No direct support | No direct support |
| **Integration & Extensibility** | Supports multiple models (OpenAI, LLaMA, etc.) | Uses LangChain for LLM execution | API-based, works with plugins | Can be fine-tuned | Can be fine-tuned |
| **Best for Text Analysis** | Yes (with proper setup) | Yes (multi-agent collaboration) | General NLP tasks, not structured analysis | Requires additional components | Requires additional components |
| **Data Handling** | Pipelines & retrieval-augmented generation (RAG) | Task-based agent collaboration | API-driven, limited customizability | Raw model, needs tooling | Raw model, needs tooling |
| **Customization** | High (can define agents & workflows) | High (multi-agent architecture) | Medium (via API parameters) | High (if fine-tuned) | High (if fine-tuned) |

| | | | | | |
|---|---|---|---|---|---|
| **Ease of Use** | Medium (requires setup) | Medium (requires configuration) | High (easy API use) | Low (requires fine-tuning) | Low (requires fine-tuning) |
| **Ideal Use Case** | Building complex AI pipelines | Multi-agent AI workflows | Chatbot & general NLP | Research & fine-tuning for custom tasks | Research & fine-tuning for custom tasks |