Problem Statement:

**Evolving Data Sources and dynamic research needs make Manual Research sub-optimal with longer cycle times, reduced quality and increased costs & inefficiencies**

**Solution Overview:**

1. **Solution Approach**: Modular agents that dynamically accomplish multiple research tasks and orchestration to manage the flow of tasks. This is enabled thru a chat interface which navigates the user progressively thru the research - Discovery, Extraction, Reasoning, Analysis & Reporting on enterprise-wide and web-based data sources varying in their content and format.
2. **Your Solution:** Application harnessing Generative AI & Agentic flows for efficient Capital Market Research for automated insights and decision support in enterprises. This is illustrated with a workflow for an analyst looking to improve his investment portfolio
3. **Key Features:**

•**Interface –** Easy conversational interface to accomplish a variety of research goals and queries answered

•**Modular Agentic Flow** – Orchestration agent dynamically allocates tasks to multiple task agents

•**Discovery –** Know most relevant content for the research from enterprise sources and alternative web-based sources for the user scenarios alongside summaries, key topics of the artefact explain the relevance

•**Extract** – Automated Key Metric extraction from multiple relevant sources

•**Analyze** – Ask deeper questions on extracted metrices in a conversational mode

•**Report** – Dynamic dashboard to visualize extracted metrics thru charts, summaries and downloaded reports

•**Configuration** – Define data sources and workflows to establish boundaries for research

1. **Technical Implementation:** Tech Stack comprisingGen AI Models(Claude Sonnet, AWS Titan), AI/ML, Python, Web Technologies, AWS Services
2. **Industry Impact, Collaboration and Production Viability:**

**Impact:** Assisted, affordable and quality research to enable fast investment decisions

**Potential Path to Production:** Pilot the solution for limited user base with larger data and variety, fine-tune the application for production rollout

**Scalability** of your solution at an enterprise level: Modular design that can adapt to varied research goals, accommodate multiple data modalities, volumes while maintaining quality levels

Highlight **collaboration** with industry partners (if any): NA

Potential **challenges and limitations:** Might require more configuration efforts for other domains