**AAI-520 – Team Project Status Update Form**

Team Number: 9

Team Leader/Representative: Matt Hashemi

Title of Your Project: Multi‑Agent Investment Research System

**Short Description of Your Project and Objectives:** Agentic AI is rapidly gaining traction in finance; earnings calls and VC funding show a sharp rise in AI‑agent projects. These agents can plan tasks, use external tools and learn from feedback. Our project will develop a **multi‑agent investment research system**. A central agent will plan research steps for a stock, call tools for price data, news and economic indicators, evaluate its own outputs, and store short‑ and long‑term memories. Specialised sub‑agents will handle news sentiment and fundamental screening. Through prompt‑chaining, routing and evaluator‑optimizer loops the system will iteratively refine its analysis and output a concise report.

**Description of Your Selected Dataset (data source, number of variables, size of dataset, etc.):**

1. **Yahoo Finance / yfinance** – supplies daily price and key financial ratios for each company.
2. **Federal Reserve Economic Data (FRED) –** hosts **hundreds of thousands of economic time‑series** from numerous sources; we will pull GDP, inflation and interest‑rate data.
3. **Financial News with Ticker‑Level Sentiment (Kaggle)** – provides **over 5 000 news articles** with titles, summaries, tickers, sentiment scores and metadata for our news‑analysis agent.

Provide the GitHub link of the final project: https://github.com/Matt-Hashemi/AAI-520-Final-Project-Group9

How many times have your members met in the last two weeks? I am working independently on the project (with prior approval), so there have been no team meetings.

List the specific contributions that each team member is providing for the Final Team Project in the table below.

|  |
| --- |
| Team Member 1 (Matt Hashemi) |
| • Designed project scope, objectives and agentic workflows.  • Researched and selected datasets/APIs (yfinance, FRED, Kaggle news).  • Implementing the core agent and workflow (prompt‑chaining, routing, evaluator–optimizer).  • Maintaining the GitHub repository and preparing the final notebook. |

Comments/ Roadblocks: Working solo means balancing planning, data collection, coding and documentation on my own. Integrating data from disparate sources while keeping the system interpretable and compliant remains a key challenge.