



FIN 422 - Student Managed Investment Fund

Group AI Assignment 1

AI Assistant/Chatbot Construction

This AI assignment must be done as a group, and all group members (unless there are unusual circumstances) will receive the same grade. The assignment must be uploaded to the D2L folder by the due date listed on the course schedule. Use the following title: "FIN 422 AI Ass. 1, Group X". Upload ONLY ONE assignment per group. All prompts (including the names of the AI models used) and (unedited) completions should be included in an appendix.

AI Assignment 1: AI Assistant/Chatbot Construction

Assignment Overview

Build an AI Assistant/chatbot that provides firm-specific analysis by integrating financial data and natural language processing (NLP).

Data

You will need to develop a series of data sources that the AI Assistant will use in responding to questions. In the appendix, there are examples of some of the data that you might included:

Notes:

1. You certainly do not want to include all of those sources. That amount of information might prove more confusing than helpful. Focus on the documents that relate to your analysis of this specific firm and its situation.
2. Upload all documents as PDF files.
3. The easiest way to get the financial statements is to download them from the SEC's [Edgar](#) as an Excel spreadsheet. Then save the relevant worksheets as separate PDF files.
4. Much of the other information can be found in S&P Capital IQ.

Construction

1. Design the instructions for the AI Assistant:
Basic Identity: You are...
Capabilities: You can...
Limitations: You cannot...
Communication Style: You should behave...
Response Format:
 Greeting
 Format when answering questions
2. Add the instructions to the AI Assistant.
3. Upload the knowledge sources as PDF files.
4. Published the AI Assistant.

Notes:

1. Use AI to help you design the instructions.
2. If a member of your group has a way to create AI Assistants, e.g., a ChatGPT plus subscription, use that. If not, let me know, and I will create it for you based upon what you put in this assignment. You will need to send me your instructions and a zip file containing the PDF files

Testing

Test your AI Assistant with a range of questions and check the accuracy of its responses. Depending on the AI model you use, the responses may be text only or it may be able to create images, graphs, and charts. Remember that some AI models are prone to hallucinations, that is, creating false or misleading information. Examples: What is the firm's P/E ratio? Summarize the last earnings report.

Submission

Submit a Word file that contains the instructions you developed, a list of the data sources, and the initial testing results.

Final Note: In this assignment you create the AI Assistant, and in the last assignment, after you have used it throughout the semester, you will evaluate the AI Assistant and include suggestions for improving it.

Appendix: Possible Data Sources

Financial Data Sources:

- SEC filings (10-K, 10-Q, 8-K reports) containing financial statements, business descriptions, risk factors, and management discussion
- Earnings call transcripts and presentation materials
- Historical stock price and trading volume data
- Credit ratings and analyst reports
- Financial ratios and industry comparison metrics

Company-Specific Information:

- Corporate website content including press releases, blog posts, and product information
- Patent portfolios and intellectual property records
- Executive biographies and leadership team changes
- Corporate governance documents and proxy statements
- Mergers, acquisitions, and divestiture history

Industry and Market Context:

- Industry reports and market research
- Competitor analysis and market share data
- Economic indicators relevant to the company's sector
- Regulatory framework and compliance requirements
- Supply chain relationships and major partnerships

Social and Media Coverage:

- News articles and media coverage
- Social media sentiment analysis
- Customer reviews and feedback
- Employee reviews and workplace culture information
- Environmental, Social, and Governance (ESG) metrics and sustainability reports

Operational Data:

- Geographic footprint and facility locations
- Product catalogs and service offerings
- Major customer and supplier relationships
- Distribution channels and logistics networks
- Technology infrastructure and digital presence

Historical Context:

- Company founding and major milestones
- Past strategic initiatives and their outcomes
- Historical leadership changes and organizational restructuring
- Previous market challenges and responses
- Brand evolution and marketing campaigns