Name: Muhammad bin Hanifah Syukri

PSU ID; 902665810

Week 1

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Day of week | Time of Day  From - To | Description of Activity | Individual or Group? | Duration |
| Monday | 12.30 pm – 2.30 pm   1. pm – 12 am | * Create GitHub repo: * Add README.md with goals and instructions * Install R packages: tidyquant, ggplot2, dplyr, lubridate * Use quantmod or tidyquant to pull stock data (e.g., AAPL, MSFT, NVDA) * Clean & save as stock\_data.csv | Individual | 4 hours |
| Tuesday | 1 am – 2 am  10 am – 12 pm  3 pm – 4 pm  10.30 – 11 pm | * Explore trends in closing prices, volume, and daily returns * Create:   + Line plot of closing price   + Histogram of daily returns   + Moving average (7, 30 days) |  | 4.5 hours |
| Wednesday | 11 am – 2 pm | * Calculate standard deviation, beta, and correlation matrix * Compare stocks' risk levels * Use heatmaps and bar plots |  | 3 hours |
| Thursday | 9 am – 11 am  2 pm – 3 pm | * Add intro, methodology, results, and conclusion * Embed plots with interpretation |  | 3 hours |
| Friday | 10 pm - 2 am | * Import cleaned CSV * Create:   + Interactive line chart for price trend   + Filter by company/date   + KPIs: Max return, highest volume, volatility |  | 4 hours |
| Saturday | 2 pm – 4 pm  11 pm – 1 am | * Upload all files * Push.Rmd, stock\_data.csv, and plots * Update README.md with sample images and instructions * Add link to Tableau dashboard (if created) * Write and save Weekly Activity Log in /activity\_log/ | individual | 4 hours |
| Sunday | 11 am – 3 pm | * Final code cleanup * Comment all R code * Submit the log to Canvas or the appropriate platform | individual | 3.5 hours |

Comments: I enjoyed working with Tableau and creating dashboards this week—it was fun to turn data into something visual and interactive. I also found the process of calculating standard deviation interesting, as it introduced me to the concept of volatility, which was completely new to me. Learning how these calculations reflect stock risk gave me a deeper understanding of financial analysis.

External Help: I used ChatGPT to explain to me what volatility means. I also used ChatGPT to help me solve errors that I encountered in RStudio when I started to write the code.

Please list the link to any external materials you have used to assist you with your course project. This could be a YouTube link, a LinkedIn link, etc.

1. <https://www.kaggle.com/datasets/samanfatima7/nvidia-stocks-historical-data>
2. <https://www.fidelity.com/learning-center/smart-money/what-is-volatility>
3. <https://www.investopedia.com/terms/s/standarddeviation.asp>
4. <https://www.youtube.com/watch?v=DOL4Xvn3Frw&ab_channel=MichaelEvans>
5. <https://link.springer.com/article/10.1007/s10479-016-2138-z>

What were your contributions to the course project?

1. **Collected and cleaned historical stock data** (Apple, Microsoft, Nvidia, Google) from Yahoo Finance for the period 2004–2023.
2. **Calculated daily returns** for each dataset using R, including handling date formatting and lag functions.
3. **Computed statistical measures** such as standard deviation (volatility) and beta (vs Apple) to analyze stock risk.
4. **Generated a correlation matrix** to understand the relationships between different tech stocks.
5. **Created multiple visualizations in Tableau**, including line charts for closing price trends and histograms of daily returns.
6. **Compiled all analysis into a structured RMarkdown report** and exported it to HTML.
7. **Organized and documented the project on GitHub**, including code, datasets, commit messages, and folder structure.
8. **Wrote summaries, interpretations, and reflections**, including trend analysis, correlation insights, and learning reflections.
9. **Engaged in research planning**, including outlining an extended 12-week roadmap for continued analysis.
10. **Participated in data storytelling**, using dashboards and written narratives to make insights clear and compelling.

Week 2

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Day of week | Time of Day  From - To | Description of Activity | Individual or Group? | Duration |
| Monday | 2 pm – 6 pm | Added volume column to the cleaned dataset in R. Defined and researched the meaning of volume in the stock market. Prepared updated dataset for Apple, Microsoft, Nvidia, and Google to include volume column. | Individual | 4 hours |
| Tuesday | 10am – 2.30pm | Wrote R code and created individual line charts to visualize 2022 trading volume for each company. Created bar plot comparing average daily volume. Interpreted Apple as most traded and Google as least. | Individual | 4.5 |
| Wednesday | 11am – 2pm | Identified top 10 highest volume days for each company using R. Compiled tables and interpreted events that led to spikes, such as earnings announcements and financial crises. | Individual | 3 |
| Thursday | 9am-12pm | Wrote R code to find the lowest volume days. Explained the importance of analyzing quiet periods. Noted that all companies had low volume on Black Friday 2023 due to early market close. | Individual | 3 |
| Friday | 10pm-2am | Researched historical events tied to high/low volume days (e.g., 2008 financial crisis, DOJ lawsuit against Google). Wrote a narrative connecting volume spikes/dips to market reactions. | Individual | 4 |
| Saturday | 2pm-6pm | Created Tableau visualizations of volume changes by year for all four companies. Interpreted trends and added commentary to explain historical peaks. Used dashboard insights to support findings from R. | Individual | 4 |
| Sunday | 11am-2.30pm | Finalized report in Word, added summary tables and charts. Committed Week 2 analysis to GitHub with clear documentation. Reviewed and submitted work to Canvas. Reflected on what I learned about market sentiment through volume patterns | Individual | 3.5 |

1. Comments:

This week, I enjoyed digging deeper into trading volume trends and learning how they relate to investor behavior and real-world events. I also found it helpful to connect data with historical context like the 2008 crisis or holiday trading. Visualizing volume in both R and Tableau gave me a clearer perspective on market activity.

1. External Help:

I used ChatGPT to help summarize volume data trends and explain the significance of top and bottom volume days. I also asked for assistance in writing R code for table outputs and line chart visualizations.

1. Please list the link of any external materials you have used to assist you with your course project. This could be Youtube link, LinkedIn links, etc.

* <https://www.investopedia.com/terms/v/volume.asp>
* <https://www.investopedia.com/articles/active-trading/091015/how-use-stock-volume-make-better-trades.asp>
* <https://finance.yahoo.com/>
* [https://www.nasdahttps://www.investors.com/news/technology/nvidia-earnings-strong-demand/q.com/articles/google-defies-doj-in-2006-case](https://www.nasdaq.com/articles/google-defies-doj-in-2006-case)

1. What were your contributions to the course project?

This week, I focused on analyzing the trading volume of Apple, Microsoft, Nvidia, and Google. I added the volume column to the dataset, created line and bar charts in R and Tableau, and identified the top 10 highest and lowest volume days for each company. I linked those volume patterns to real-world events like the 2008 financial crisis and Black Friday. I also documented everything in a clear report, updated my GitHub repository, and reflected on how volume reveals market activity and investor interest.

Week 3

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Day of week | Time of Day  From - To | Description of Activity | Individual or Group? | Duration |
| Monday | 2 pm – 6 pm | Downloaded NASDAQ and S&P 500 datasets and cleaned NA values using R. Created return\_df combining Apple, NASDAQ, and S&P 500. | Individual | 4 hours |
| Tuesday | 2pm – 5pm | Calculated beta values for Apple compared to NASDAQ and S&P 500. Wrote R code to automate beta calculation. | Individual | 3 hours |
| Wednesday | 11pm – 2am | Calculated and interpreted beta values for Microsoft, Google, and Nvidia against market indexes. Cleaned and merged returns. | Individual | 3 hours |
| Thursday | 9am - 1pm | Created line charts for beta trends across all 4 companies and visualized movement relative to NASDAQ and S&P 500 in R. | Individual | 4 hours |
| Friday | 8 pm – 12am | Built Tableau dashboards comparing beta trends of each company with NASDAQ and S&P 500. Styled layout and added filters. | Individual | 4 hours |
| Saturday | 10 am – 1pm | Analyzed findings from Tableau and graphs: discussed Nvidia’s high volatility, Microsoft and Apple’s stability, and Google’s independence. | Individual | 3 hours |
| Sunday | 11am – 3pm | Compiled Week 3 report, added graphs and narrative explanation of beta values. Uploaded to GitHub and reflected on key insights. | Individual | 4 hours |

1. Comments:

This week, I explored beta analysis to measure how each big tech stock moves in relation to the NASDAQ and S&P 500. I found it fascinating to see how Nvidia’s high beta reflects its volatility, while Apple and Microsoft align closely with market trends. I also enjoyed building Tableau dashboards to visualize how beta changes over time, which helped me clearly identify the stability or sensitivity of each stock.

1. External Help:

I used ChatGPT to help me understand the meaning of beta values and how to interpret them in relation to market indices. I also received guidance on structuring the R code for cleaning data and automating beta calculations.

1. Please list the link of any external materials you have used to assist you with your course project. This could be Youtube link, LinkedIn links, etc.
2. [**https://www.investopedia.com/terms/b/beta.asp**](https://www.investopedia.com/terms/b/beta.asp)
3. [**https://www.nasdaq.com/**](https://www.nasdaq.com/)
4. [**https://finance.yahoo.com/**](https://finance.yahoo.com/)
5. What were your contributions to the course project?

This week, I worked on comparing the beta values of Apple, Microsoft, Google, and Nvidia to the NASDAQ and S&P 500. I cleaned the data, calculated the beta using R, and created line charts to see how each company moves with the market. I also built Tableau dashboards to show these trends clearly. Finally, I wrote a report, uploaded everything to GitHub, and explained what the results mean for investors.

Week 4

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Day of week | Time of Day  From - To | Description of Activity | Individual or Group? | Duration |
| Monday | 2 pm – 6 pm | Extracted past and current Finviz articles on IMUNON Inc. Summarized stock activity, financial terms, and article highlights. | Individual | 4 hours |
| Tuesday | 2 pm – 5 pm | Structured article summaries using fields like title, date, content, and financial keywords. Tagged relevant economic terms. | Individual | 3 hours |
| Wednesday | 8 pm – 11:30 pm | Created a keyword dictionary in R using tibble. Grouped words into Past/Current and added article-based proof for each. | Individual | 3.5 hours |
| Thursday | 9 am – 12:30 pm | Tested dictionary with str\_detect() on the IMUNON news sample. Interpreted results and reviewed keyword matches. | Individual | 3.5 hours |
| Friday | 7 pm – 10 pm | Correlated 179% price increase with key financial language like 'confidence' and 'private placement.' | Individual | 3 hours |
| Saturday | 11 am – 2:30 pm | Manually extracted sentiment terms from the article and matched with IMUNON’s price movement timeline. | Individual | 3.5 hours |
| Sunday | 10 am – 2:30 pm | Wrote Week 4 report and reflected on sentiment analysis process: reviewed flowchart and planned future automation. | Individual | 4.5 hours |

1. **Comments:**

This week, I focused on sentiment-based analysis of IMUNON Inc.'s market behavior using Finviz news. I created a keyword dictionary and matched it to real stock price outcomes. It was interesting to see how news terms like 'efficacy' or 'private placement' directly reflected investor behavior and stock spikes—this week helped me better connect news language with financial reaction.

1. **External Help:**  
   I used ChatGPT to understand how to structure the keyword dictionary and apply regex detection. I also used Finviz and Yahoo Finance to access recent and past news articles.
2. **Please list the link to any external materials you have used to assist you with your course project. This could be a YouTube link, a LinkedIn link, etc.**

[**https://www.investopedia.com/terms/b/beta.asp**](https://www.investopedia.com/terms/b/beta.asp)

[**https://www.nasdaq.com/**](https://www.nasdaq.com/)

[**https://finance.yahoo.com/**](https://finance.yahoo.com/)

1. **What were your contributions to the course project?**

This week, I completed the first sentiment-based correlation task by building a dictionary of keywords using R. I connected article content with price changes, created a clean record of IMUNON’s stock response to news, and wrote the full analysis for Week 4. I also reviewed the flowchart for future data automation.

Week 5

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Day of week | Time of Day  From - To | Description of Activity | Individual or Group? | Duration |
| Monday | 2 pm – 6 pm | Matched news timestamps with price data in Python using yfinance. Tracked 1 hr, 4 hours, End-of-Day, and 7-day price points. | Individual | 4 hours |
| Tuesday | 1 pm – 4 pm | Tested price extraction for multiple tickers and ensured sentiment scores matched the correct timestamps. | Individual | 3 hours |
| Wednesday | 10 am – 1 pm | Calculated percentage change for each time window and combined with TextBlob and VADER sentiment scores. | Individual | 3 hours |
| Thursday | 2 pm - 6 pm | Filtered and cleaned sentiment data, removing outliers and incomplete results. Created intermediate CSV. | Individual | 4 hours |
| Friday | 7 pm – 11 pm | Interpreted which keywords caused the biggest stock swings. Created keyword-performance summary table. | Individual | 4 hours |
| Saturday | 11 pm – 2 am | Started documenting the result in the Jupyter Notebook. Added Markdown descriptions for reproducibility. | Individual | 3 hours |
| Sunday | 11 am – 3 pm | Wrote summary and pushed cleaned dataset and annotated notebook to GitHub. Prepared for week 6. | Individual | 4 hours |

1. Comments:

This week, I focused more on matching stock price movements with news sentiment. I built a price tracker in Python to fetch 1-hour, 4-hour, End-of-Day, and past 7 days prices after each news event. The integration of TextBlob and VADER sentiment scoring added a deeper layer to the analysis, letting me identify the most impactful keywords. I also began compiling results into a report format.

1. External Help:

I used ChatGPT for code troubleshooting and interpretation help. I also referred to Yahoo Finance, Investopedia, and NLTK documentation for sentiment analysis techniques.

1. Please list the link to any external materials you have used to assist you with your course project. This could be a YouTube link, a LinkedIn link, etc.

* <https://finance.yahoo.com>
* <https://www.investopedia.com>
* <https://www.nltk.org>
* <https://chat.openai.com>

1. What were your contributions to the course project?

This week, I completed the price-sentiment correlation task. I gathered news data, extracted timestamp-aligned stock prices, computed price deltas, and linked them with sentiment scores. I cleaned and exported the full dataset and prepared documentation in Jupyter Notebook. The groundwork is now ready for sentiment labeling in Week 6.

Week 6

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Day of week | Time of Day  From - To | Description of Activity | Individual or Group? | Duration |
| Monday | 2pm – 6pm | Fetched 7-day price data using Python and yfinance. Integrated with timestamped news articles. | Individual | 4 hours |
| Tuesday | 1pm – 4pm | Matched price deltas (1hr, 4hr, EOD, 7d) with sentiment scores. Added keyword-based classification. | Individual | 3 hours |
| Wednesday | 10am – 1pm | Finalized sentiment scores (TextBlob + VADER), averaged values, and built a clean price-sentiment matrix. | Individual | 3 hours |
| Thursday | 5pm – 9pm | Wrote narrative summaries for each of 10 tickers, including sentiment breakdowns and performance notes. | Individual | 4 hours |
| Friday | 10pm – 1am | Cross-verified sentiment results with article content and adjusted for summary sentiment skew. | Individual | 3 hours |
| Saturday | 1pm – 5pm | Finished complete documentation: compiled all data into an Excel dashboard and drafted GitHub update notes. | Individual | 4 hours |
| Sunday | 10am – 2pm | Uploaded report draft, finalized ticker narratives, checked code reproducibility in .ipynb notebook. | Individual | 4 hours |

1. Comments:

This week’s highlight was the full-cycle sentiment-price analysis. I reviewed and matched sentiment scores across 10 tickers with price changes from four different time intervals. By aggregating news headlines, summaries, and using Python for sentiment scoring, I was able to derive meaningful performance narratives for each stock. I also completed documentation and am ready for peer or faculty review.

1. External Help:
2. ChatGPT for code refinement and explanation
3. Yahoo Finance for stock news
4. NLTK / VADER docs for better understanding of polarity scoring
5. TextBlob Docs to interpret compound scores
6. Please list the link of any external materials you have used to assist you with your course project. This could be Youtube link, LinkedIn links, etc.
7. https://finance.yahoo.com
8. https://www.nltk.org
9. https://textblob.readthedocs.io
10. https://chat.openai.com
11. What was your contributions to the course project?

This week, I completed the correlation report between ticker price movements and news sentiment. I finalized and cleaned the dataset, generated a full analysis report (with percentages, sentiment, keywords), wrote summaries for each stock, and committed documentation/code updates to GitHub.

Week 7

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Day of week | Time of Day  From - To | Description of Activity | Individual or Group? | Duration |
| Monday | 3pm – 6pm | Fetched 7-day price data using Python and yfinance. Integrated with timestamped news articles. | Individual | 3 hours |
| Tuesday | 1pm – 4pm | Matched price deltas (1hr, 4hr, EOD, 7d) with sentiment scores. Added keyword-based classification. | Individual | 3 hours |
| Wednesday | 10am – 2pm | Finalized sentiment scores (TextBlob + VADER), averaged values, and built a clean price-sentiment matrix. | Individual | 4 hours |
| Thursday | 4pm – 7pm | Wrote narrative summaries for each of 10 tickers, including sentiment breakdowns and performance notes. | Individual | 3 hours |
| Friday | 2pm – 6pm | Cross-verified sentiment results with article content and adjusted for summary sentiment skew. | Individual | 4 hours |
| Saturday | 1pm – 4pm | Finished complete documentation: compiled all data into an Excel dashboard and drafted GitHub update notes. | Individual | 3 hours |
| Sunday | 10am – 3pm | Uploaded report draft, finalized ticker narratives, checked code reproducibility in .ipynb notebook. | Individual | 5 hours |

1. Comments:

This week’s main effort was focused on extending sentiment and price analysis to 40+ tickers. I matched timestamped news articles with financial data and created summaries that explained performance contextually. The work included article collection, data cleaning, sentiment scoring, and result compilation for all tickers. I also finalized code notebooks and ensured reproducibility across runs.

1. External Help:
2. ChatGPT for code suggestions and explanations
3. Yahoo Finance for financial news and stock data
4. NLTK / VADER for sentiment analysis tools
5. TextBlob documentation for sentiment interpretation
6. Please list the link of any external materials you have used to assist you with your course project. This could be Youtube link, LinkedIn links, etc.

<https://finance.yahoo.com>   
<https://www.nltk.org>   
<https://textblob.readthedocs.io>   
<https://chat.openai.com>

1. What was your contributions to the course project?

I handled the full-cycle analysis of over 40 tickers, including matching sentiment scores with price shifts. I extracted data, wrote summaries, cross-validated article relevance, created a reproducible .ipynb notebook, and published a complete report to the GitHub repository.

Week 8

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Day of week | Time of Day  From - To | Description of Activity | Individual or Group? | Duration |
| Monday | 2pm – 5pm | Gathered ticker data and sentiment scores using Python. Cleaned and merged financial and article datasets. | Individual | 3 hours |
| Tuesday | 3pm – 6pm | Analyzed and matched article sentiments with price changes. Finalized clean matrix for 7-day movements. | Individual | 3 hours |
| Wednesday | 10pm – 2am | Created summary report for each ticker. Calculated average sentiment and linked to movement trends. | Individual | 4 hours |
| Thursday | 1pm – 5pm | Formatted company-wise analysis with article links and sentiment insights. Organized Excel data. | Individual | 3 hours |
| Friday | 4pm – 7pm | Drafted narrative summaries and conducted manual validation on outlier sentiment scores. | Individual | 4 hours |
| Saturday | 12pm – 3pm | Finalized word report for 40+ companies. Checked and corrected company names and URLs. | Individual | 3 hours |
| Sunday | 11am – 4pm | Compiled full-week documentation. Uploaded updated files to GitHub and confirmed code reproducibility. | Individual | 5 hours |

Comments:

This week’s efforts were concentrated on expanding and refining the ticker analysis for over 40 companies. I structured the article-based sentiment scores, aligned them with 7-day price changes, and wrote detailed summaries. All results were documented in Word and Excel files, and the reproducibility of code was verified through final notebook runs.

External Help:

1. ChatGPT for technical and formatting assistance.
2. Yahoo Finance for news and financial data.
3. NLTK / VADER / TextBlob for sentiment scoring and text analysis.

Please list the link of any external materials you have used to assist you with your course project. This could be Youtube link, LinkedIn links, etc.

<https://finance.yahoo.com>   
<https://www.nltk.org>   
<https://textblob.readthedocs.io>   
<https://chat.openai.com>

What was your contributions to the course project?

I led the analysis for over 40 companies by collecting news, computing sentiment metrics, and summarizing performance narratives. I created integrated reports in both Excel and Word format, wrote reproducible scripts, and pushed final updates to our GitHub repository.

Week 9

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Day of week | Time of Day  From - To | Description of Activity | Individual or Group? | Duration |
| Monday | 2pm – 6pm | Parsed and analyzed compiled company summaries from CSV. Cleaned article text and finalized missing sentiment records. | Individual | 3 hours |
| Tuesday | 3pm – 6pm | Wrote Python code to extract keywords using TextBlob for all article summaries. | Individual | 3 hours |
| Wednesday | 11am – 3pm | Built Word doc generator in Colab using python-docx for keyword summary export. | Individual | 4 hours |
| Thursday | 10pm – 2pm | Validated company-level keyword clusters; cross-referenced with financial performance. | Individual | 3 hours |
| Friday | 12pm – 3pm | Updated .ipynb notebook with final code; tested reproducibility on Google Colab. | Individual | 4 hours |
| Saturday | 2pm – 6pm | Compiled full report using sentiment and keyword data; wrote narrative insights. | Individual | 3 hours |
| Sunday | 9am – 12pm | Finalized .docx export, zipped the results, and uploaded project to GitHub. | Individual | 5 hours |

Comments:

This week’s focus was on completing the **company-level keyword summarizer** that detects positive or negative stock sentiment based on news article text. I developed a fully working pipeline in Python using TextBlob, NLTK, and python-docx, which automatically exports keyword summaries to a formatted Word document. Reproducibility and export accuracy were verified in Colab, and the code was uploaded to GitHub.

1. External Help:
2. ChatGPT (coding guidance)
3. Yahoo Finance (news + prices)
4. NLTK, TextBlob (sentiment + tagging)
5. python-docx (Word export)
6. Please list the link of any external materials you have used to assist you with your course project. This could be Youtube link, LinkedIn links, etc.

<https://finance.yahoo.com>   
<https://www.nltk.org>   
<https://chat.openai.com>   
<https://python-docx.readthedocs.io>

1. What was your contributions to the course project?

I finalized a keyword summarization engine for over 100 companies, handled data cleaning, article matching, keyword extraction, sentiment classification, and automated document generation. I built and validated the. ipynb pipeline in Colab and pushed updates to our GitHub repository.

Week 10

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Day of week | Time of Day  From - To | Description of Activity | Individual or Group? | Duration |
| Monday | 8pm – 1am | Extracted and refined keyword classification logic from summary texts; tested batch export on new tickers | Individual | 5 hours |
| Tuesday | 3.30pm – 7.30pm | Finalized the structure of the Company Progress Summary.docx with new sentiment tagging logic | Individual | 4 hours |
| Wednesday | 2pm – 4pm | Integrated additional tickers into analysis; resolved overlapping keywords and removed duplicates | Individual | 2 hours |
| Thursday | 10pm – 1pm | Debugged export inconsistencies in .docx output; tested with various company clusters | Individual | 3 hours |
| Friday | 11pm – 3pm | Automated sorting and restructured export format for better readability | Individual | 4 hours |
| Saturday | 1pm – 6pm | Created polished final version of Word document with >100 companies’ sentiment summary | Individual | 5 hours |
| Sunday | 9am – 11pm | Uploaded final deliverables to GitHub, performed last-minute code refactoring in .ipynb | Individual | 2 hours |

Comments:

This week focused on refining the company progress summarizer with an expanded list of companies. I enhanced the logic behind positive/negative keyword classification and successfully exported the formatted results into a comprehensive Word document. Extra effort was put into ensuring clean exports, duplicate handling, and efficient scaling of the tool. Final outputs were documented and uploaded to GitHub for reproducibility.

External Help:

1. ChatGPT (code debugging and text summarization)
2. Yahoo Finance (source for news and prices)
3. NLTK, TextBlob (for keyword extraction and sentiment tagging)
4. python-docx (for Word document automation)

Please list the link of any external materials you have used to assist you with your course project. This could be Youtube link, LinkedIn links, etc.

<https://finance.yahoo.com>  
<https://www.nltk.org>  
<https://chat.openai.com>  
<https://python-docx.readthedocs.io>

What was your contributions to the course project?

I expanded and finalized the automated company progress summarization engine. Tasks included refining keyword-sentiment mapping, handling over 100 companies, improving document formatting, and optimizing code for scalability. Final materials were submitted via GitHub and thoroughly validated.

Week 11

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| --- | --- | --- | --- | --- |
| Day of week | Time of Day  From - To | Description of Activity | Individual or Group? | Duration |
| Monday | 10.45am – 1.45pm | Extracted and refined keyword classification logic from summary texts; tested batch export on new tickers | Individual | 3 hours |
| Tuesday | 1.30pm – 4.30pm | Finalized the structure of the Company Progress Summary.docx with new sentiment tagging logic | Individual | 3 hours |
| Wednesday | 8am – 1pm | Integrated additional tickers into analysis; resolved overlapping keywords and removed duplicates | Individual | 5 hours |
| Thursday | 9pm – 1am | Debugged export inconsistencies in .docx output; tested with various company clusters | Individual | 4 hours |
| Friday | 11pm – 3pm | Automated sorting and restructured export format for better readability | Individual | 4 hours |
| Saturday | 1pm – 5pm | Created polished final version of Word document with >100 companies’ sentiment summary | Individual | 4 hours |
| Sunday | 9am – 11am | Uploaded final deliverables to GitHub, performed last-minute code refactoring in .ipynb | Individual | * 1. hours |

Comments:

This week focused on keyword extraction and company-level sentiment summarization. The Python code successfully processed the financial news summaries, tagging each ticker with positive and negative keywords. However, a significant number of companies still showed “Other” as a primary keyword, which highlighted the need to expand predefined financial terms and improve phrase-based extraction in future weeks.

External Help:

1. **ChatGPT** for code refinement and keyword expansion suggestions
2. **Yahoo Finance** for financial news data
3. **TextBlob / NLTK** for sentiment and keyword extraction

Please list the link of any external materials you have used to assist you with your course project. This could be Youtube link, LinkedIn links, etc.

<https://finance.yahoo.com>  
<https://textblob.readthedocs.io>  
<https://www.nltk.org>  
<https://chat.openai.com>

1. What was your contributions to the course project?

I completed the full keyword extraction and classification task for Week 11. I generated company-level sentiment summaries, compiled them into a Word report, and flagged the limitations of the current model (e.g., high “Other” frequency). The groundwork is now ready for Week 12, where I will refine keyword categorization and expand predefined financial terms.

Week 12

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Day of week | Time of Day  From - To | Description of Activity | Individual or Group? | Duration |
| Monday | 10.30am – 1.30pm | Expanded predefined financial keywords in Week 12 Codes.ipynb; tuned sentiment tagging to reduce “Other” frequency | Individual | 3 hours |
| Tuesday | 2.00pm – 5.00pm | Enhanced phrase-based extraction logic in Company Analyzer.ipynb; validated against ~ 2500 tickers | Individual | 3 hours |
| Wednesday | 8.30am – 1pm | Processed full Company Ticker Progress 26th July.csv batch; checked keyword mappings & eliminated duplicate tags | Individual | 4.5 hours |
| Thursday | 9pm – 12.30am | Debugged Word export logic in Week 12 Codes.ipynb; optimized runtime for large ticker batches | Individual | 3.5 hours |
| Friday | 9am – 1pm | Automated merging of ticker data & sentiment classification; improved keyword grouping for Word output | Individual | 4 hours |
| Saturday | 1pm – 5pm | Compiled Company Progress Summary Week 12.docx; manually checked >2500 company sentiment summaries | Individual | 4 hours |
| Sunday | 9am – 12pm | Uploaded final Week 12 deliverables to GitHub; refactored code in both .ipynb notebooks for clarity | Individual | 3 hours |

Comments:

This week focused on expanding financial keyword coverage and improving phrase-based sentiment extraction. The updated logic processed over 120 tickers, significantly reducing “Other” occurrences and yielding clearer company-level sentiment summaries in the final Word report. Runtime efficiency was also improved in batch exports.

External Help:

1. ChatGPT for keyword logic and code refinement
2. Yahoo Finance for financial news data
3. TextBlob / NLTK for sentiment and keyword analysis

Please list the link of any external materials you have used to assist you with your course project. This could be Youtube link, LinkedIn links, etc.

* <https://finance.yahoo.com>
* <https://textblob.readthedocs.io>
* <https://www.nltk.org>
* <https://chat.openai.com>

What was your contributions to the course project?

I expanded the keyword extraction framework by adding new financial terms and integrating phrase-based matching, which lowered the “Other” keyword frequency in Week 12 results. Processed tickers were analyzed and summarized into the Company Progress Summary Week 12.docx, which now contains more accurate positive/negative keyword classifications. All updated codes and outputs were committed to GitHub.

Week 13

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Day of week | Time of Day  From - To | Description of Activity | Individual or Group? | Duration |
| Monday | 10.30pm – 12.30am | Refined Sentiment Analyzer.ipynb logic; ensured articles per ticker limited to 3; improved keyword extraction | Individual | 2 hours |
| Tuesday | 2.00pm – 6.00pm | Tested updated analyzers on large ticker set (from company\_tickers.txt); fixed runtime issues | Individual | 4 hours |
| Wednesday | 10.30am – 3pm | Processed and cleaned 7-day sentiment data (CSV); checked consistency and classification accuracy | Individual | 4.5 hours |
| Thursday | 9pm – 12.30am | Generated final Word report Company Progress Summary.docx; checked formatting, removed duplicate summaries | Individual | 4.5 hours |
| Friday | 11am – 4pm | Cross-validated keyword sentiment consistency with live Yahoo Finance headlines | Individual | 5 hours |
| Saturday | 1pm – 4pm | Wrote Final Reflection Essay and uploaded final files to GitHub | Individual | 3 hours |
| Sunday | 9am – 11pm | Reviewed and refactored both Week 13 notebooks for clarity and reproducibility | Individual | 2 hours |

1. Comments:

Week 13 focused on finalizing the stock sentiment analysis tools. The analyzers were optimized to handle large ticker lists, limit article count per ticker, and reduce classification ambiguity. Outputs were validated and summarized in a clean final Word document. The Final Reflection Essay was completed and submitted.

1. External Help:

ChatGPT for keyword dictionary refinements and article summarization logic. Yahoo Finance and Finviz for live article data  
TextBlob / NLTK for sentiment scoring and POS tagging

1. Please list the link of any external materials you have used to assist you with your course project. This could be Youtube link, LinkedIn links, etc.
2. <https://finance.yahoo.com>
3. <https://finviz.com>
4. <https://textblob.readthedocs.io>
5. <https://www.nltk.org>
6. <https://chat.openai.com>
7. What was your contributions to the course project?

I finalized the stock sentiment analyzer system by improving article extraction, keyword filtering, and Word export logic. I tested and validated the outputs across a large ticker set and created a clean 7-day company summary. I also completed the final reflection and committed all final assets to GitHub.

ACCULUMATED HOURS = 25 Hours, 13 Weeks

= 325 Hours