

# **Reflection Journal**

## **1. Team Collaboration Analysis**

Working together on this project was a mix of planning, problem-solving, and sharing ideas. I worked on different parts of the work, like cleaning the data, building the models, or making the results look good. I wrote the code in different pages and tested them out, and found what seemed to be the problem. Sometimes it was tricky to keep up with what I needed to do.

## **2. Technical Integration Challenges**

It was more difficult than we anticipated to assemble the NewsBot system. I had to make sure that the code for classifying articles and identifying significant names interacted properly with the code for text cleaning. Version problems occasionally caused the programs I used to not function well together, particularly in Google Colab. Setting up the API keys required additional steps to obtain data from Kaggle. To ensure that everything went smoothly from beginning to end, we had to address numerous minor issues.

## **3. Business Value Assessment**

In the real world, this project can be very helpful. Companies can use it to monitor news about their competitors or brand and determine whether the coverage is favorable or unfavorable. Additionally, it could assist businesses in comprehending public sentiment regarding sports, politics, or health trends. Our system can swiftly identify key information and provide a summary in place of a human reading hundreds of articles. This helps people make better decisions based on the news and saves time.

#### **4. Individual Contributions**

I set up the text cleaning procedures, added sentiment analysis, and ensured that the data could be loaded from Kaggle because I worked on this project myself. In addition, I concentrated on developing the Named Entity Recognition component, training the models, and producing the graphs and charts. In order to ensure that the system produces accurate results, I worked on testing it.

#### **5. Future Enhancements**

There are many ways I could make this project better. I could add real-time news feeds so the system updates automatically. Maybe also make it work in different languages so people around the world could use it. Using more advanced AI models like BERT could

improve accuracy. Another idea is to build a website dashboard where users can click on charts and see trends over time. These changes would make the system more powerful and user-friendly.

## **6. Professional Development Impact**

I learned a lot about natural language processing (NLP), or how computers comprehend and interact with human language, from this project. Along the way, I gained knowledge about how to run machine learning models, prepare data, and resolve technical issues. My ability to work in a team, including allocating tasks equitably and assisting others when they needed it, also improved. Above all, I gained knowledge about how to relate technology to actual business issues. I will benefit from this experience for upcoming assignments and employment.