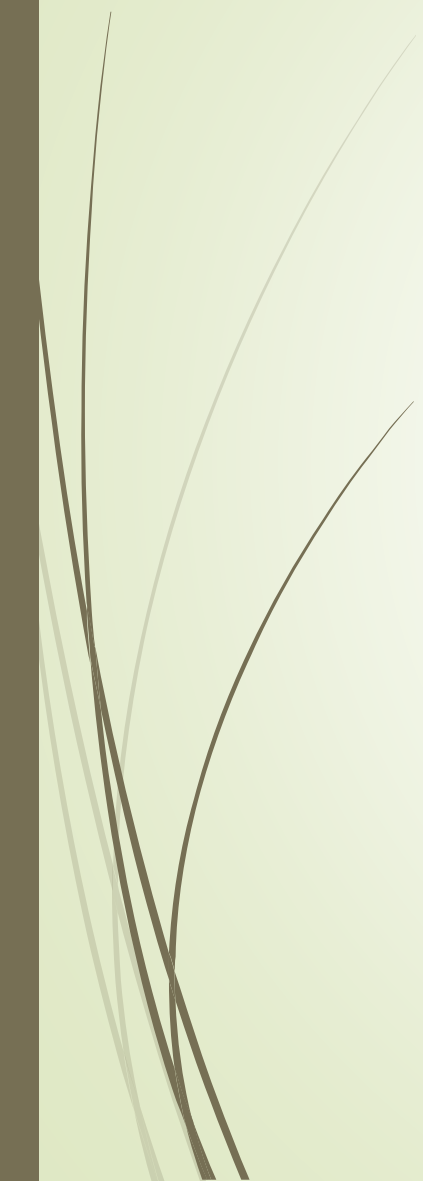




News Sentiment Analysis Tool

- Analyze Perception from Online News
 - Presented by: Mandar Kishore More
 - Course: DLBDSME01
- 



Project Objective









- Goal:
- Develop a tool that fetches recent news articles for a company and classifies their sentiment.
- Use Case:
- Marketing uses this tool to track how the company is perceived.



Chosen Technologies



Languages & Frameworks:

-  - Python
-  - Streamlit
-  - NewsAPI
-  - NLTK (VADER)
-  - HuggingFace Transformers (BERT)
-  - Pandas



System Architecture

- Shared the image in file



Preprocessing

- Steps:

- - Lowercase conversion
- - Remove punctuation
- - Remove stopwords
- - Normalize text

- Reason:

- Improves model consistency and accuracy.



Sentiment Models



Model

- VADER
- Roberta
- FinBert
- Zero-shot
- Textblob



Sample Output

- Screenshot suggestions:
 - - Streamlit interface with input
 - - Results table with sentiments
 - - Bar chart of sentiment counts
- Shared screenshot in different pdf



Validation & Evaluation

- Methods:

- - Manual validation
- - VADER vs BERT vs FINBERT vs ZERO-SHOT vs TEXTBLOB output comparison
- - Error inspection

- Planned Improvements:

- - Labeling UI
- - Performance tracking



Reflection & Iteration



- Challenges:
 - - Ambiguous headlines
 - - API limits
 - - Model disagreements
- Solutions:
 - - Preprocessing
 - - Two model toggle
 - - Article limit



Next Steps & Conclusion

- Next Steps:

- - Add feedback loop
- - Support multiple news APIs
- - Cloud deployment

- Conclusion:

- Tool meets requirements with live crawling, dual-model sentiment analysis, and UI.