■ NLP-Based Instant Feedback System

■ Algorithm: NLP Instant Feedback

Input: User's text (string)
Output: Feedback list with suggestions

Load spaCy and TextBlob NLP libraries. Receive user input text. Process each sentence using spaCy: Check for passive voice (auxpass tag). Check for long sentences (> 25 tokens). Check for spelling errors using TextBlob. Analyze sentiment polarity using TextBlob: Negative if polarity < -0.2 Positive if polarity > 0.5 Generate appropriate feedback messages. Display feedback to the user.

■ Flowchart Description:

Start → Load NLP Models → Get Input Text →
→ Analyze Sentences (Grammar, Length) → Spelling Check →
→ Sentiment Analysis → Generate Feedback → Output to User → End

■ Documentation of Findings:

Objective: To provide real-time feedback on user text using NLP.

Tools Used: Python, spaCy, TextBlob

Feedback Categories:
- Passive voice detection
- Sentence complexity
- Spelling corrections
- Sentiment analysis

Test Input: "The report was written by the students, and it was very bad."
Feedback:
- ■■ Passive voice detected
- ■■ Negative sentiment detected

Conclusion: The system effectively identifies linguistic issues and helps users improve writing instantly.