TEXT SUMMARIZER

TEAM NAME: FALCONS

from KGiSL INSTITUTE OF TECHNOLOGY

TEAM MEMBERS:

A.TRESSA BERNICE

V.GUNASEKARAN

IDEA /APPROACH

- We have used the **TextRank algorithm** to rank sentences in the document and select the most important ones for the summary, it is a graph-based approach that uses the extractive summarization method.

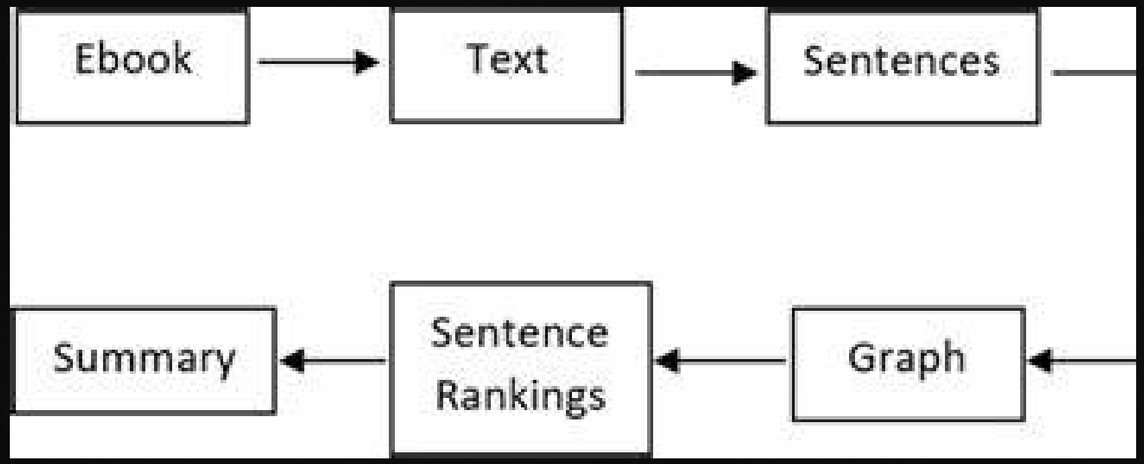
- It extracts sentences or phrases directly from the input text rather than generating new sentences.

- TextRank algorithm processes the text, calculates sentence similarities, ranks sentences, and selects the most important ones to create a summary.

- process_content: This function takes the input text content, processes it, and splits it into sentences.
- sentence_similarity: This function calculates the similarity between two sentences using the cosine distance metric.
- build_similarity_matrix: This function creates a similarity matrix between sentences.
- generate_summary: This function generates a summary of the input content.

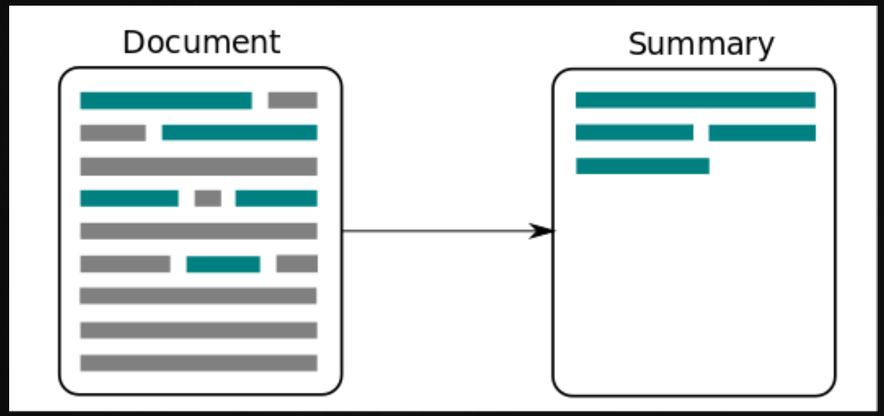
TECHNOLOGY STACK

1.Python
2. Streamlit
3. NLTK
4. Numpy
5.NetworkX
6.io module



USECASE

1. News Article summarization
2. Document summarization
3. Email summarization
4. Academic summarization
5. Automated Reporting



SHOW STOPPER

1. Language Support:

The code is designed for English text summarization.

2. File upload limitation:

Improvements in terms of user guidance, error handling, and interactivity could be considered for a production application.

3. User-interface:

Improvements in terms of user guidance, error handling, and interactivity could be considered for a production application.

THANK YOU