"Application of Natural Language Processing: Text Summarization"

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ABSTRACT

While looking for research papers and literature review papers, there are many tasks to complete, which adds significantly to the workload. Therefore, the primary goal of automatic text summarization is to make it simple for researchers to summarize data that is provided in the form of a PDF document, such as a research paper or a literature review. Abstractive and extractive text summarizing techniques are used to summarize the data in a way that can assist the researcher understand how the paper that has been submitted as input has really been used. Text summarization automatically generates a summary that includes all relevant information from the original text as well as important words. Additionally, the methods or methodology may be presented in audio form utilizing the Google Text To Speech API. The result in this article is presented in table format, which can be more dependable and clear than the summary in paragraph style.

1. TITLE

The primary goal of automatic text summarization is to make it simple for researchers to summarize data that is provided in the form of a PDF document, such as a research paper or a literature review. Text summarization automatically generates a summary that includes all relevant information from the original text as well as important words.

1.1 PROBLEM DEFINITION

The problem at hand is to develop a system or algorithm that can automatically generate concise and coherent summaries of given text documents.

The goal is to extract the most important information from the original text.

1.2 MOTIVATION

Automatic text summarization is motivated by several factors that address the challenges and needs of information processing in today's digital .Overall, automatic text summarization addresses the growing demand for efficient information processing, helps manage information overload, and facilitates effective communication and decision-making in various domains.

2 system requirements

2.1 Software Requirements

 1. Platform: Windows 7 and above
2. Programming Languages: Python
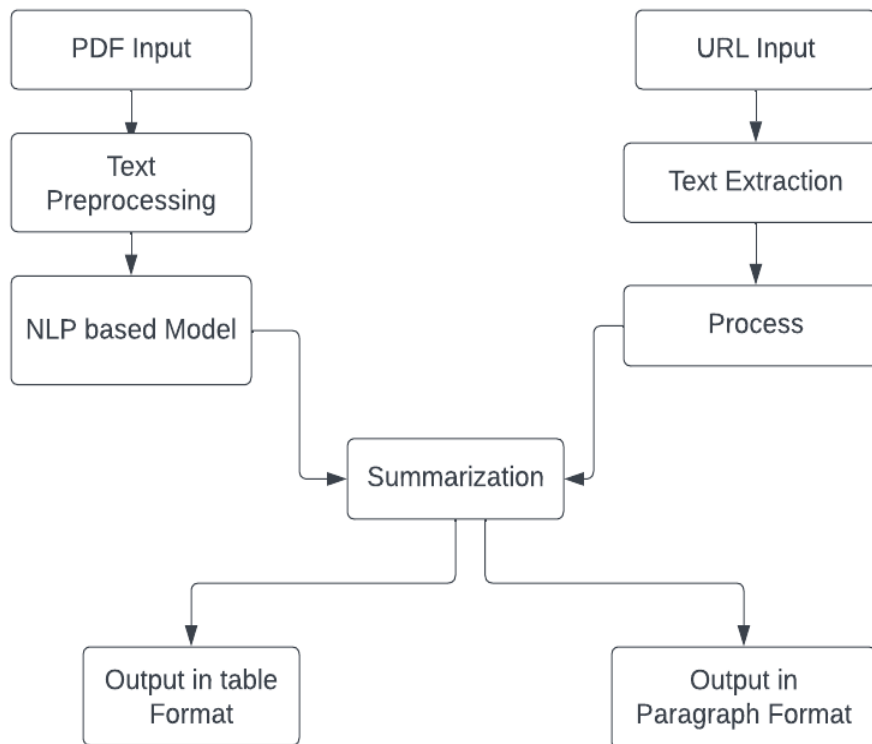
3. Tools Used: Python IDLE 3.10.5

2.2 Hardware Requirements

1. Intel Core Processor
2. RAM 2GB and above.
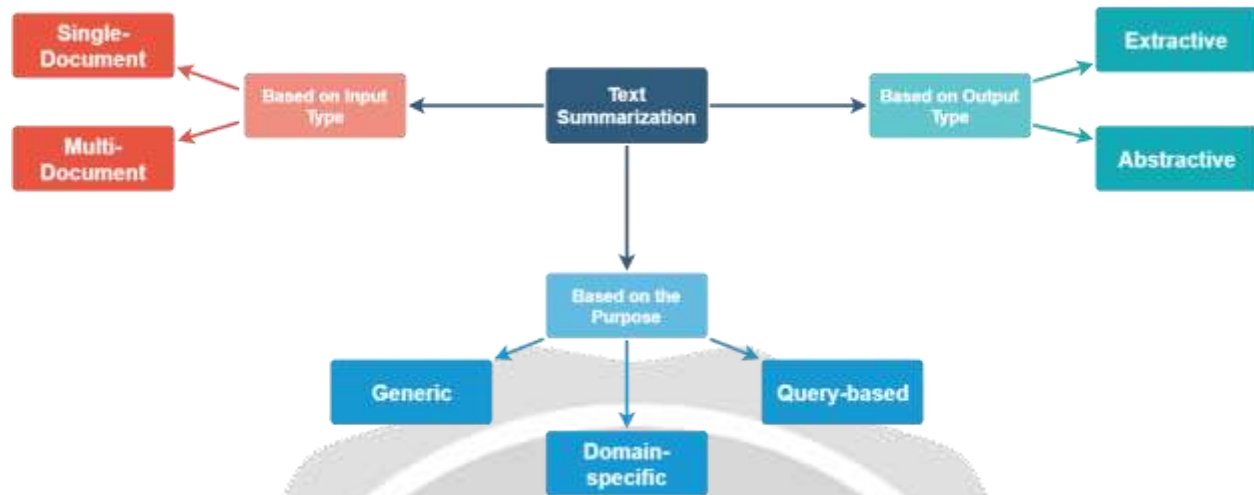 3. Hard Disk 256 GB and above.

3. NONFUNCTIONAL REQUIREMENTS

- A system with Windows 7 & above or Linux operating system
- Accessible libraries for design coordinating with calculation
- Python IDLE

4.1 System Architecture

4.2 Activity Diagram-

4.3 FURURE SCOPE

Current text summarization methods mainly focus on single documents. However, in the future, there will be an increasing need for summarizing information from multiple documents, such as news articles covering the same event. Developing techniques to extract and summarize information across multiple sources will be a significant area of research. As information is generated at a rapid pace, real-time summarization becomes crucial for tasks like news updates, social media analysis, and live event coverage. Future research will focus on developing efficient and scalable algorithms to provide instantaneous summaries as new information becomes available.

5. CONCLUSIONS

Automatic text summarization is an important tool that streamlines the process of condensing lengthy documents or articles into shorter, concise versions. Through the utilization of natural language processing (NLP) techniques and algorithms, automatic text summarization systems can effectively extract key information and present it in a coherent and coherent manner.

6. REFERENCES

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