



Text Summarization Using NLP

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ABSTRACT:

The purpose of automatic text summarising is to condense large papers into more manageable and cost-effective forms, which is a task that would be difficult and time consuming to do manually. When you don't need to rely on someone to help you write a brief and fluent summary, you're referred to as an automatic text summarizer.

Keywords: NLP (natural language processing), extractive, abstractive, encoding, decoding are some of the key terms.

Introduction:

There is a need for a strategy that helps us sort through the massive volume of text available on the internet. One of the most difficult and intriguing problems in Natural Language Processing is automatic text summarization. It's a method for extracting a brief and meaningful summary of text from a variety of text sources, including books, news stories, blog posts, research papers, emails, and tweets. Extraction and abstraction are the two primary types of current approaches to automatic summarization. To create the summary, extractive algorithms select a subset of the original text's words, phrases, or sentences. Abstractive methods, on the other hand, construct an internal semantic representation first, then generate a summary using natural language generation techniques.

1. Motivation

The task of compressing a piece of text into a shorter version, lowering the size of the original text while keeping crucial informational aspects and content meaning, is known as summarization. Because manual text summarising is a time-consuming and typically arduous activity, automating it is expanding in popularity and hence provides a strong incentive for academic research. This was the primary motivation for choosing this topic for project development.

1.2 Challenges

Topic identification, interpretation, summary production, and evaluation of the created summary are all important difficulties in text summarizing. The majority of effective text summarizing systems use extractive summarization. Abstraction-based summarization is intrinsically more challenging and is currently under investigation.

2. System Requirements

2.1 Software Requirements

Operating System : Windows 10.

Frontend : Html ,CSS, Bootstrap, JavaScript

Tool : Sublimetext3, Pycharm.

Database : MySQL.

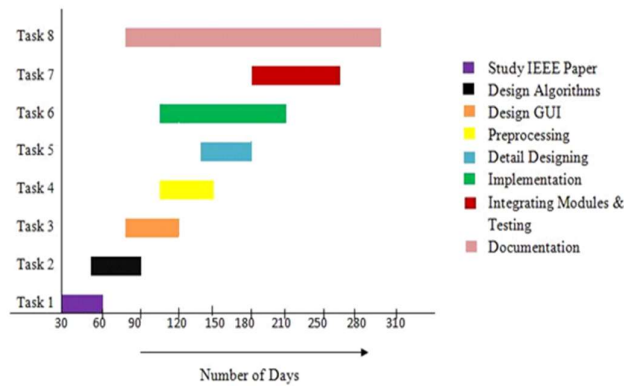
2.2 Hardware Requirements

System : Intel I3 Processor,

Hard Disk : 200 GB.

Monitor : 15 VGA Color.

Ram : 4 GB



The requirements section of hardware includes minimum of 180 GB hard disk and 4 GB RAM with 2 GHz or higher speed. The primary requirements include a memory of 4GB for the Android Application development and MySQL

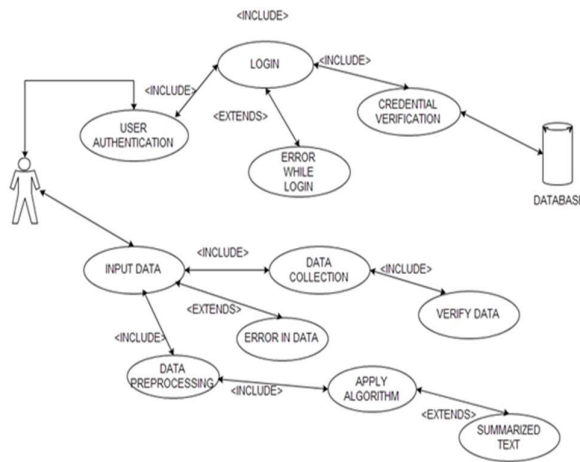


Fig -1: User Case

The paper discusses ABS or Extractive summaries of text documents (extracts) are the most common outputs of the methods presented in this study. The majority a significant portion of the effort the structured and semantic approaches to text documents summarization.

The following are some additional perks of text summarization:

- Automatically generating article summaries saves time and effort for content editors who would otherwise have to do so by hand.
- Instant Response: It saves the user time and effort in finding the information they need. With automatic text summarizing, a person can summarize an article in a matter of seconds, reducing their reading time.
- Text Summarization allows the user to examine the contents of a text for accurate, short, and exact information, which increases productivity. As a result, the tool relieves the user of work by reducing the size of the text and increasing productivity by allowing the user to focus their energy on more important tasks.

CONCLUSION:

Automatic text summarization is a technique that allows people to increase their productivity by decreasing the amount of information they are exposed to on a daily basis. It is possible to summarise a lengthy article in a matter of seconds using automatic text summarising software. As a result, the tool relieves the user of work by reducing the size of the text and increasing productivity. Text summarising is a fast expanding field, with specialised tools being developed to handle ever-increasingly condensed summary jobs. As increasing availability of open-source software and word-embedding packages users are broadening the range of applications for this technology.

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