Project Title:

Generative AI Text Summarization Using IBM Watsonx

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PROBLEM STATEMENT

This project addresses the challenge of information overload. To overcome the inefficiency of reading lengthy texts, our goal is to provide a Generative AI application that automatically generates concise summaries, helping users quickly understand key points and save time.

Project Description

This project demonstrates a powerful text summarization tool built on the IBM Watsonx.ai platform.

The application allows a user to input any lengthy piece of text. It then communicates with a state-of-the-art Large Language Model (LLM) hosted on Watsonx. Through a technique called prompt engineering, we instruct the AI to read, understand, and distill the core concepts of the input text.

Finally, the model generates a brand new, concise summary that accurately reflects the original document's key messages. The process is fast, automated, and designed to produce high-quality, human-like text.

WHO ARE THE END USERS?

This tool is for anyone who needs to process large volumes of text quickly and efficiently.

- Students & Researchers: To quickly screen academic papers and articles for relevance, speeding up literature reviews.

- Business Analysts & Executives: To summarize dense market reports, financial documents, and long email chains to make informed decisions faster.

- Journalists & Content Creators: To condense press releases, interviews, and source materials into key takeaways for their stories or content.

Technology Used

Our summarizer is powered by a modern, cloud-based technology stack.

- Core AI Platform: IBM Watsonx.ai, a next-generation enterprise studio for building, managing, and deploying AI models.

- Foundation Model: Google Flan-T5-XL-3B and llama-3-3-70b-instruct accessed via Watsonx. These are pre-trained models capable of understanding and generating natural language.

RESULTS

To achieve high accuracy, we provided the model with five examples of topics and their desired summaries

RESULTS

The model successfully generated high-quality summaries for new, unseen topics. Here is a specific example from our tests.
Demo Link: https://github.com/Umaralp/Text-Summarization-Using-IBM-Watsonx

Thank you