MINI PROJECT: MULTIMODAL APPLICATION

Objectives

A great part of the information about the world comes to us as images and text. To be able to process, analyse and generate multimedia automatically, often we need to convert it into numeric data sets (vectors).

The process of converting or transforming data into a set of vectors is called vectorization. Text vectorisation is an essential prerequisite of the modern Natural Language Processing (NLP) and Understanding (NLU), maintained by the Generative AI.

The objectives of this project are:

• understanding the basic concepts and use of text vectorisation and vector similarity
• understanding the role of RAG (retrieval-augmented generation)
• gaining experience in implementation of methods, algorithms, and libraries for working with text in BI and Python programming.

Task

Your task is to create a simple chat-bot page in Streamlit, which would enable the users of your BI application to communicate with both local and external sources of information in text and images format.

This is a group project. It brings 20 study points.