Lab Task 11

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Difference Between Concepts

1. LangChain

LangChain is a framework designed to build applications that use large language models (LLMs). It enables chaining together different components like prompts, LLMs, and memory to create more advanced AI applications.

2. RAG (Retrieval-Augmented Generation)

RAG is an architecture that combines information retrieval with text generation. It fetches relevant documents from a knowledge base and uses that data to generate more informed and accurate responses.

3. LLMs (Large Language Models)

LLMs are powerful AI models like GPT or BERT trained on vast amounts of text data. They understand and generate human-like language based on the patterns they've learned.

4. FAISS

FAISS (Facebook AI Similarity Search) is a library for efficient similarity search and clustering of dense vectors. It is often used to quickly find the most relevant documents in a large dataset.

5. Vector

A vector is a numeric representation of data, such as text or images. In AI, vectors capture the semantic meaning of words or documents in numerical form.

6. VectorDB

A Vector Database stores and manages vectors. It allows efficient searching and matching of similar vectors, which is crucial for applications like RAG or semantic search.

7. Generative AI

Generative AI refers to models that can create new content-like text, images, music-based on training data. Examples include ChatGPT, DALL·E, and others.

8. GANs (Generative Adversarial Networks)

GANs are a type of generative model consisting of two neural networks-a generator and a discriminator-that work against each other to produce high-quality synthetic data.