What is Generative AI	**AI systems capable of creating new content (text, images, videos) based on patterns and data they've been trained on.**
Statistical ML:	Deals with structured data. Example: House price prediction.
Neural Networks:	Handles unstructured data. Example: Classification tasks (e.g., identifying features like pointy ears, whiskers).
Recurrent Neural Networks (RNN):	Used for sequences like text. Example: Predicting next word in a sentence (e.g., movie reviews).
Semi-Supervised Learning:	Combines a small amount of labeled data with a large amount of unlabeled data.
LLMs	Extremely large AI models that predict the next word or set of words in a sequence, enabling them to generate coherent and contextually appropriate text. Example: Completing the phrase "Once upon a time there was a..." with "princess" or "dragon" based on context.
Popular LLM Models:	Developed by companies like OpenAI, Google, Meta.
RLHF	A key method for improving Generative AI where the AI gets better through feedback provided by humans.
Embeddings:	Numeric representations of text in vectors capturing the meaning of words. Techniques: GloVe, Word2vec, fastText, BERT, GPT
Vector Database:	Uses hashing techniques like Locality Sensitive Hashing for efficient retrieval of embeddings. Example: Pinecone, Chroma, milvus
RAG	Combines retrieval of relevant information from a database before generating new content.
LangChain:	A Python library that simplifies building applications with LLMs.