

Multilingual Zero Shot Image Search

Using Text and Image.

What is Zero-shot image classification?

Zero-shot image classification enables a model to recognize and classify images into categories it hasn't been explicitly trained on, by generalizing from related concepts rather than directly learning every possible category.

Problem Statement

Creating a system to help people easily find pictures they're looking for by using words or by showing a sample image.

Project Description

A system using zero-shot image classification, meaning it can find images without being trained on specific data beforehand. You can describe what you need in different languages or show a sample image, and it provides images related to the search.

Use cases:

Primary:

- Enhanced Image Search using Text or Image:
Describe the image you're looking for in words (E.g. A dog with a ball) using different languages or upload a sample image, it provides results with accurate matches.

Secondary:

- Image Classification / Segregation / Categorization:
Grouping Similar Images together.
- Recommendation Systems:
Using Text or Image to recommend similar Images or Products.

Examples:

- Image Search Using Text:

Text QUERY (ENGLISH)

Thumbs up

----->

Result Image:



Text QUERY (HINDI)

हाथ ऊपर ----->

Result Image:



- Image Search Using Image

Image Query:

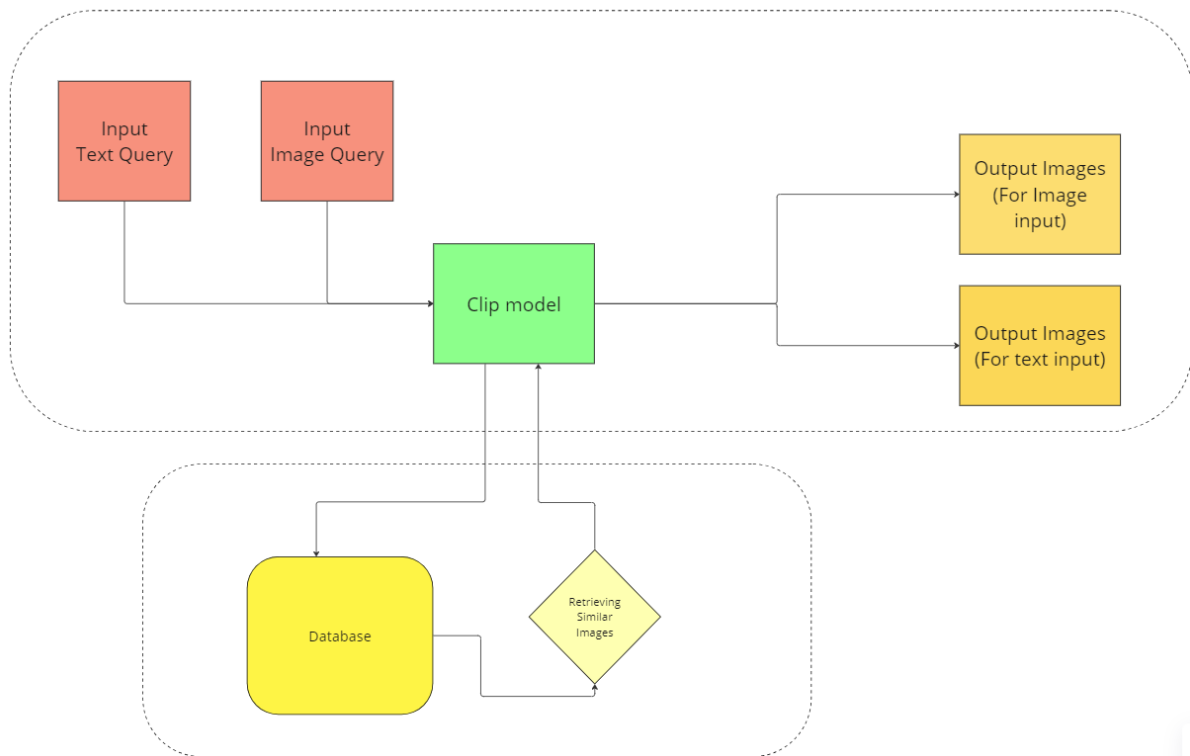


----->

Image Result:



User flow Diagram



Limitations:

- Lower accuracy on numerical text queries (e.g. 3 cars)
- Does not support HEIC and AVIF file extensions (implementation in progress)