# VIDEO INDEXING

## STEP5:STORING AND INDEXING

# Purpose of Segmentation

**1.1**

Store metadata persistently and create an index for efficient retrieval.

**1.2**

Index supports queries by keywords, sentiment, or themes.

Techniques Used

# METADATA STORAGE

## Tool

SQLite database.

## How

Stores metadata in a table with segment IDs, video paths, timestamps, keywords, sentiment, and cluster IDs.

## Why

Provides persistent, queryable storage for indexing and retrieval.

Techniques Used

# INVERTED INDEX CREATION

## Tool

Whoosh search library.

## How

Maps keywords and sentiment to segment IDs and timestamps (Fichier inverse).

## Why

Enables fast text-based search (e.g., “find ‘dog’ segments”).

Techniques Used

# SEARCH WITH RANKING

## Tool

Whoosh (TF-IDF).

## How

Searches index with queries, filters sentiment/time, and ranks results.

## Why

Delivers relevant results (e.g., highest-scoring “castle” scenes).

Techniques Used

# MODALITY FUSION

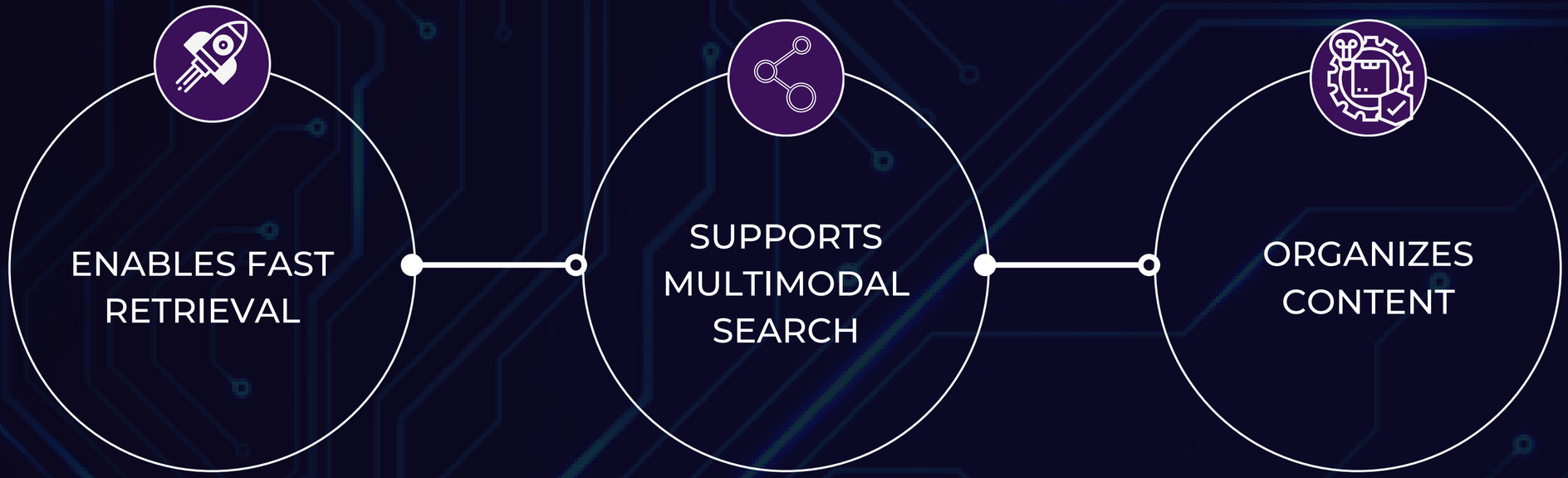
## How

Boosts keywords present in multiple modalities (e.g., text and visual) in the index (Fusion des modalités).

## Why

Improves search accuracy by combining multimodal features.

# Importance of Step 5




Inverted index allows instant lookup of segments by keywords or sentiment. Example: Query “dog” returns segment IDs [1, 3] in milliseconds.

Fusion of modalities ensures accurate results (e.g., “dog” in text and visual is prioritized).

Clustering groups similar segments, aiding browsing (e.g., “show all dog scenes”).