Topic : Searching in Audio/Video file based on user's input given in text/audio format

No.	Task Title	Task Description
1	Extract Audio from Video	Extract clear audio from video files. Ensure audio is clean, consistent, and standardized for processing.
2	Split Audio into Spoken Segments	Detect and segment speech parts in the audio. Output start and end timestamps for each speech segment.
3	Identify Which Segments Are Spoken by the Speaker	Given a sample of the speaker's voice, compare each segment. Label each segment as spoken by either the teacher or student(s).
4	Transcribe Spoken Segments to Hindi Text	Transcribe each audio segment into Hindi. Ensure each transcript includes timestamps and speaker label.
5	Prepare Segments for Semantic Search	Break transcript into searchable units (e.g., sentences). Prepare each unit for embedding or vectorization.
6	Enable Question-Based Search Over Transcripts	Accept a question in Hindi or English. Match it to relevant transcript units. Return the corresponding timestamp and speaker.
7	Design Unified Output Format	Design a consistent structure to store transcript + speaker + timestamp. Ensure this format can be used by both the search and UI layers.
8	Build Simple Search & Playback Interface	Create an interface to search transcripts and jump to specific times. Display speaker-labeled transcript alongside media playback.