

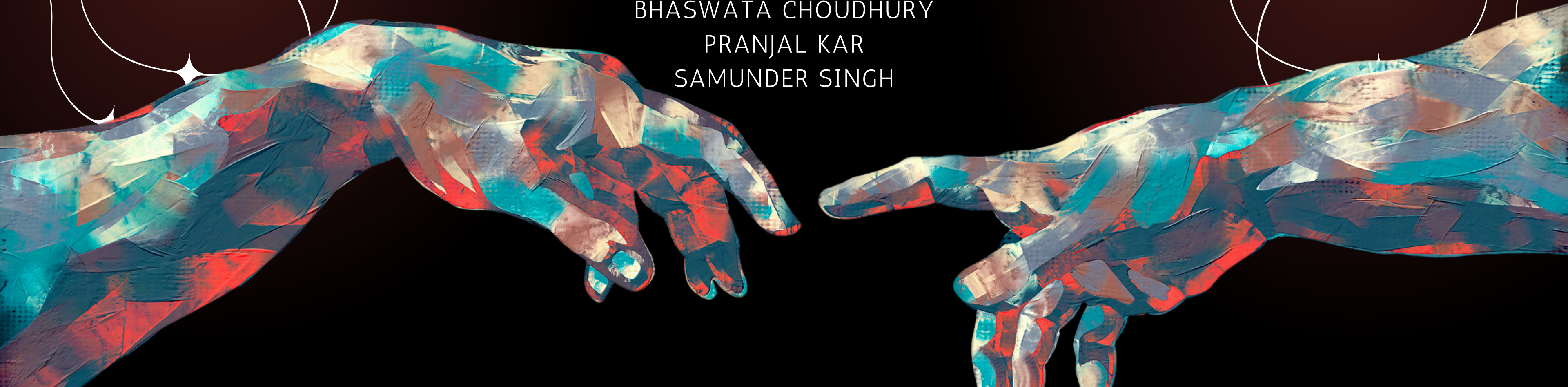


ADVANCED RAG HACKATHON



# EDULANCE.AI

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# Problem

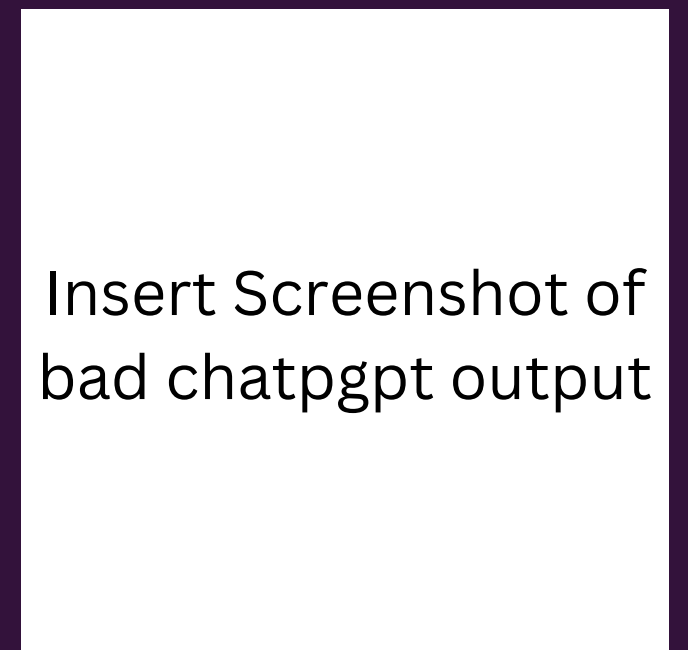
Watching lengthy lecture videos is time-consuming and tedious.

- Students face challenges in finding relevant questions and Teachers have to create quizzes or notes manually.
- Lack of practice due to limited access to Personalized Content.
- Students with learning disabilities, such as those with attention disorders face difficulties.
- Preparation for Examinations



# Problem Research -LLMs

wRITE 3 problems due to simply using LLMs , and problems with conventional LLM outputs



Insert Screenshot of  
bad chatpgpt output



# Solution

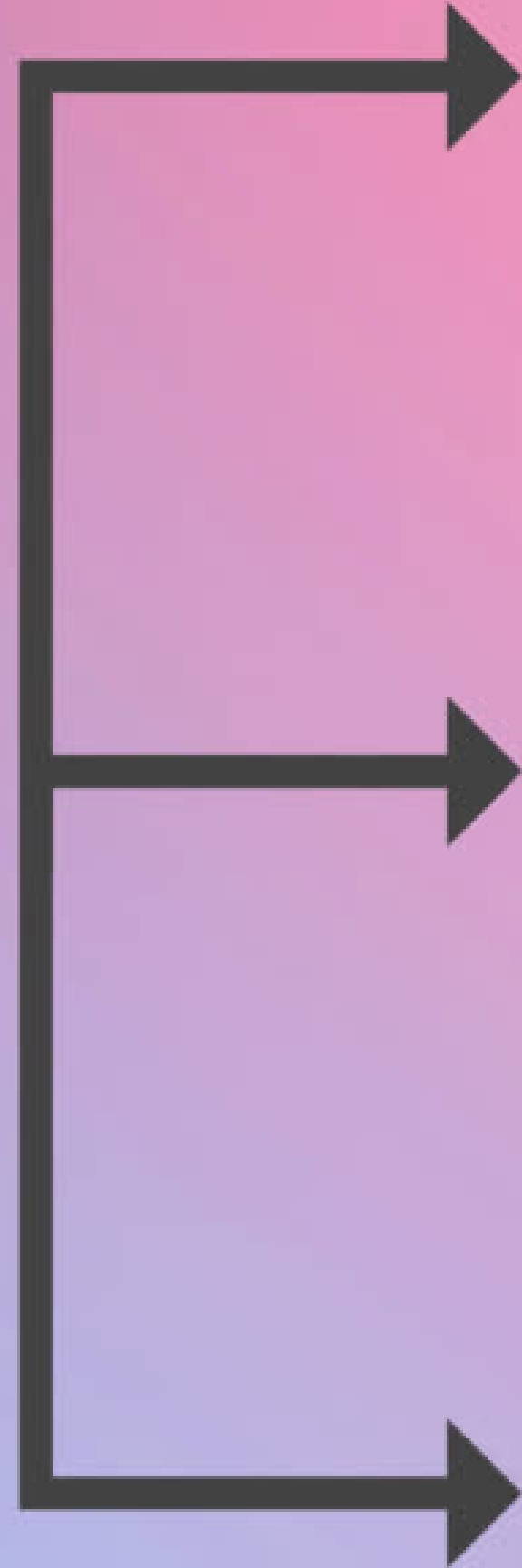
Use a hybrid approach to generate high quality Lessons based on the given input video.

- Multi-modal Agentic approach that extracts, text, audio and visual context from YouTube videos.
- Generate High Quality Video lectures from the extracted corpus.
- Incorporate a Hybrid RAG System for question answering on the given topic for doubt resolution.

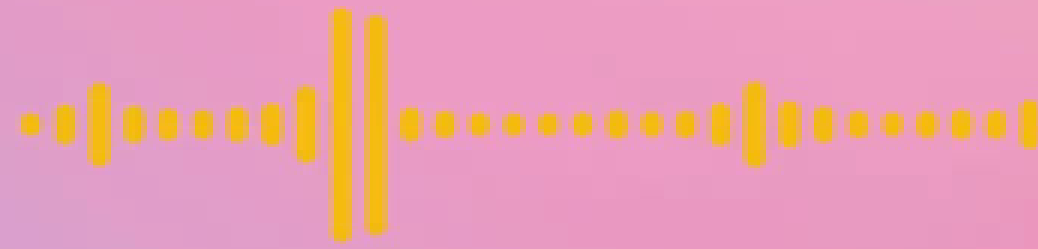
At the end, the user will have access to:

- High quality Lessons
- Question and Answers generated on the given YouTube video.
- Ability to ask questions and answers on the given video.

# Our Approach



Transcript  
extraction



Audio extraction

# Roadmap

## 01

### Preprocessing

- Scraping Data
- Frame Extraction & preprocessing
- Audio extraction, Transcript extraction, Metadata Extraction

## 02

### Model Training & Corpus Creation

- Image Tuning
- OCR on frame
- Vectara RAG for OCR and transcript.

## 03

### Agentic Generation

General characteristic

Presentations are tools that can be used as demonstrations.

# Models Used



# Demo

# Future Roadmap

Add Levenshien Distance based

