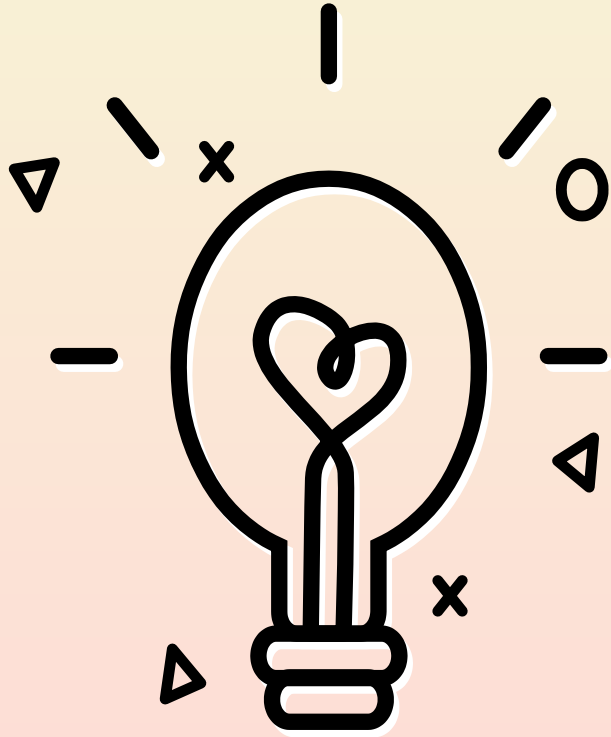


## Team Members:

Nilakhya Mandita  
Bordoloi  
Mrinmay Kalita  
Biswadeep Mazumder  
Janjyoti Ojah



# LearnSmart.

KamiKaze.

# PROBLEM STATEMENT:

## TACKLING THE PROBLEM OF ROTE LEARNING AND UNFAIR MARKING PRACTICES.

In the modern education system, rote learning and unfair marking practices have become significant hurdles in ensuring quality education.

Many students memorize concepts without truly understanding them, leading to a lack of critical thinking and creativity. Additionally, traditional assessment methods often involve biases, resulting in unfair grading.

To address these pressing issues, our team is developing an AI-powered evaluation system that will revolutionize the way students are assessed and graded.





## **SOLUTION.**

# **SOLUTION OVERVIEW:**

The primary goal of our project is to create a fair and knowledge-based assessment system that encourages creativity, real-world application, and impartial grading. Our system will achieve this by using AI to generate unique creative test questions for each student, ensuring personalized assessments that focus on conceptual understanding rather than memorization.

Furthermore, it will eliminate biases in grading by comparing student responses with AI-generated answers aligned with the teacher's intent.

Questions will focus on practical implementation of the things taught in class, ensuring students' efforts in the process of learning and understanding the concepts deeply. Although teachers will guide and train AI on what kind of response to expect from students, AI will be responsible for the marking of the answers, hence eliminating the chance of partiality by them.



# Tech-Stack.

## WEBSITE:

1. React:  
Designed Interactive Framework
2. TypeScript:  
Ensures data accuracy
3. Tailwind CSS:  
Responsive UI
4. React Router:  
Seamless Navigation between dashboards.
5. NodeJS:  
Managing Scalable BackEnd.



## MODEL:

Frontend & UI:

*Streamlit* → For creating the web application UI.

Backend & Logic:

Python → Core programming language.

Ollama → Used for AI-powered answer evaluation and QnA generation (with the Mistral model).

OpenAI → Powers the AI-driven doubt-solving functionality.

JSON → Storing and processing Q&A pairs.

File Handling & Processing:

PyPDF2 → Extracting text from PDFs.

pdf2image → Converting PDFs to images (for OCR processing).

pytesseract → Optical Character

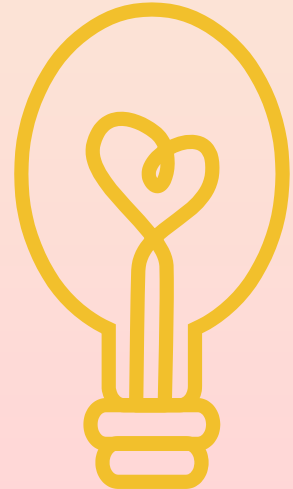
Recognition (OCR) for extracting text from image-based PDFs:

tempfile & os → Handling temporary file storage and cleanup.

Data Handling & Manipulation

JSON → Storing structured data.

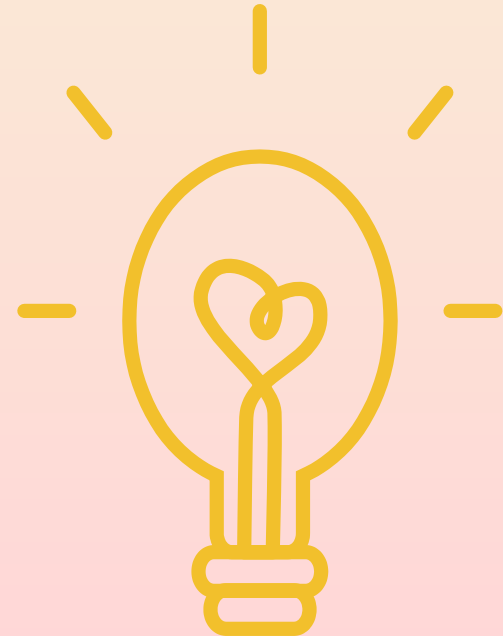
set() & list comprehension → Removing duplicate Q&A pairs.





# TEAM MANAGEMENT:

- **Model:** Nilakhya Mandita Bordoloi and Biswadeep Mazumder.
- **Website:** Mrinmay Kalita and Nilakhya Mandita Bordoloi.
- **Project Idea:** Nilakhya Mandita Bordoloi and Janjyoti Ojah.
- **Presentation Slides:** Biswadeep Mazumder and Janjyoti Ojah.





# CONCLUSION.



Thank you for your patience throughout our presentation. We hope that our vision was resonated clearly. We aim to make our model efficient and sustainable for the betterment of the upcoming generations.



Thank You!!





# Future Prospects.



The current version of our project is a mere replica of our vision. We aim to make this model largely scalable in order to increase beneficiaries for the same.



We tend to build and develop our own model in order to make it adaptable for different scenarios, that is, to give teachers and students the option to personalise their teaching and learning experience in the best way possible. We also aim to refine the working mechanism for a seamless experience as well as integrate backend to host large amount of data necessary for it's optimal performance.

