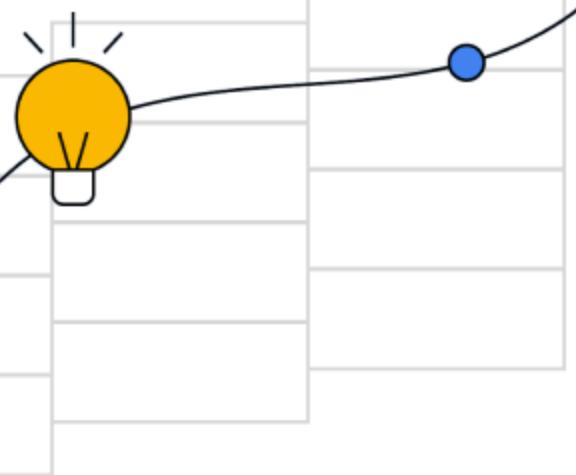
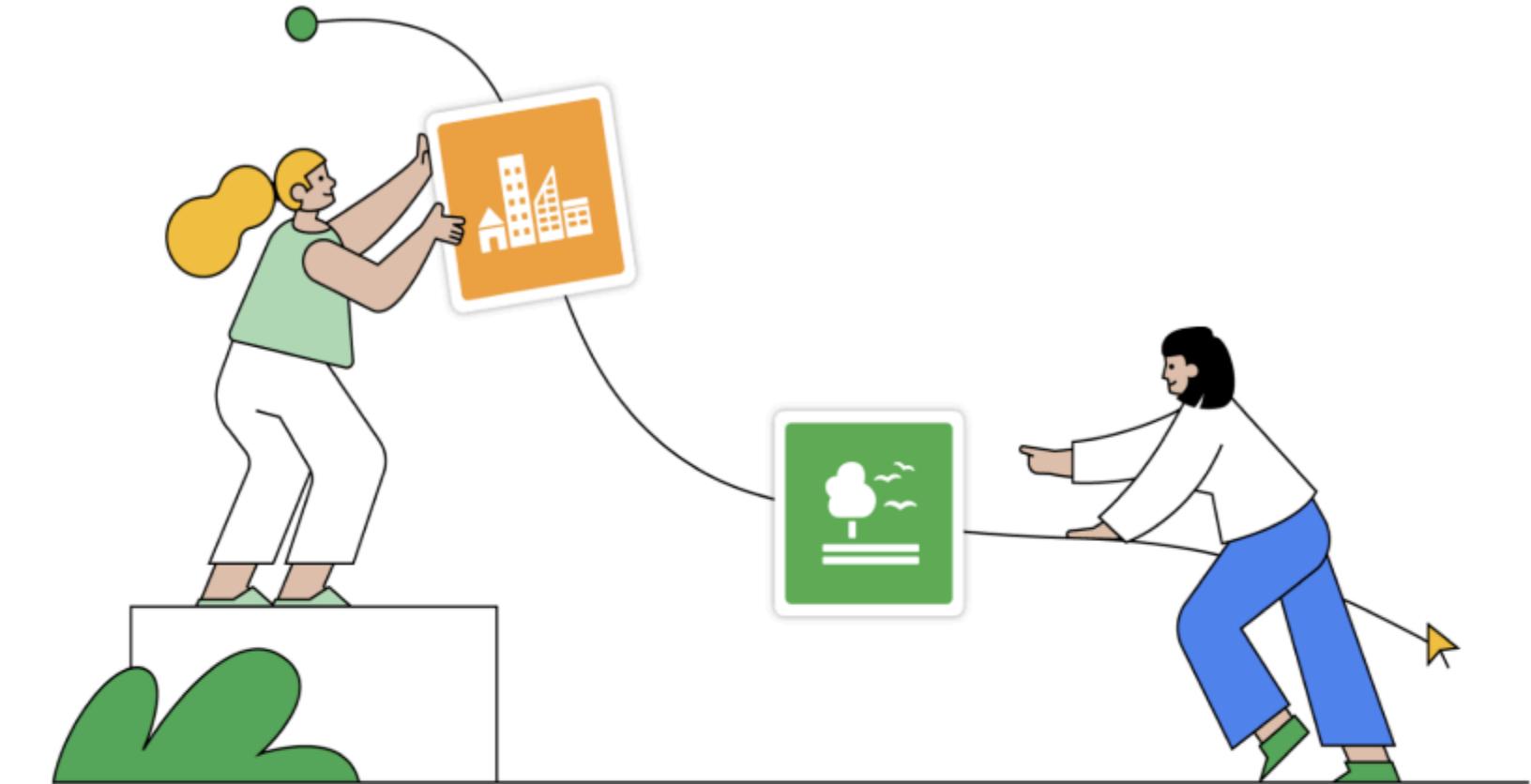


Guidelines

- Kindly use the given template for submitting your project (Make a copy of the template)
- One team is only required to submit one project.
- The ideal size of the presentation should not be more than 10 slides.
- You are welcome to add as many POCs and design concepts to support your project.
- The project should be feasible and the team members should be capable enough, to come up with the prototype of the same idea, if required.
- Projects using Google developer technologies like Gemini APIs & building projects on IDX platform will earn additional points.
- In case of queries, kindly reach out to us at solutionchallengesupport@hack2skill.com



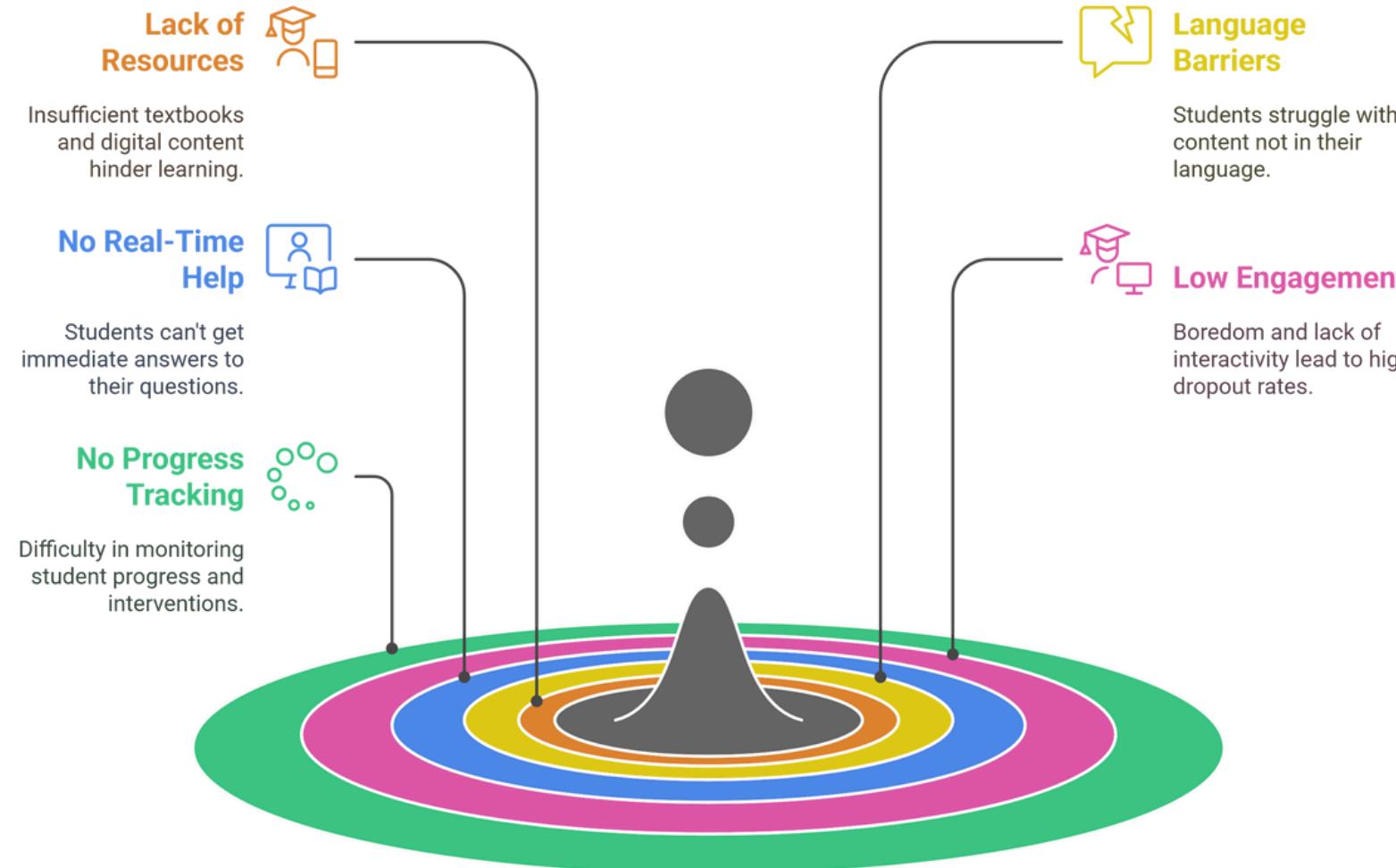
Solution Challenge



Team Details

- a. **Team name:** Unknowns
- b. **Team leader name:** Bhuwan B
- c. **Problem Statement:** Uneven Access to Quality Education in the Digital Age

PROBLEMS CHALLENGES

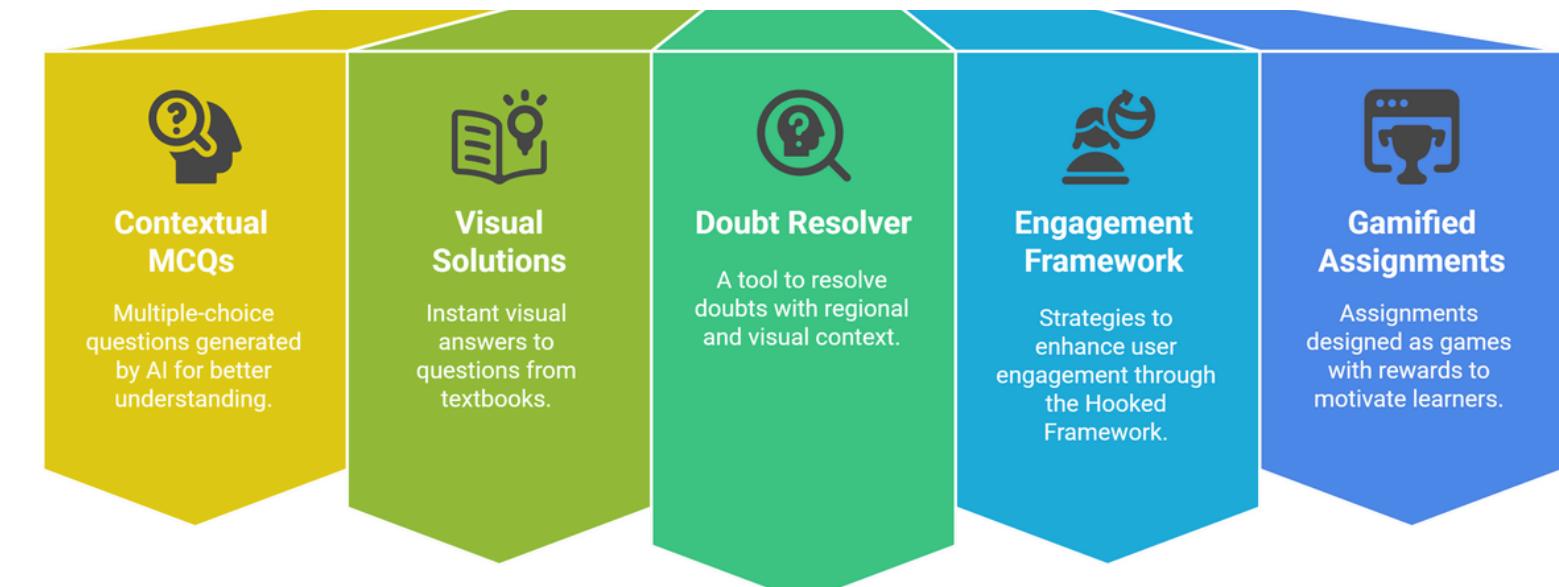


REAL-WORLD PROOF OF CONCEPT (POC)

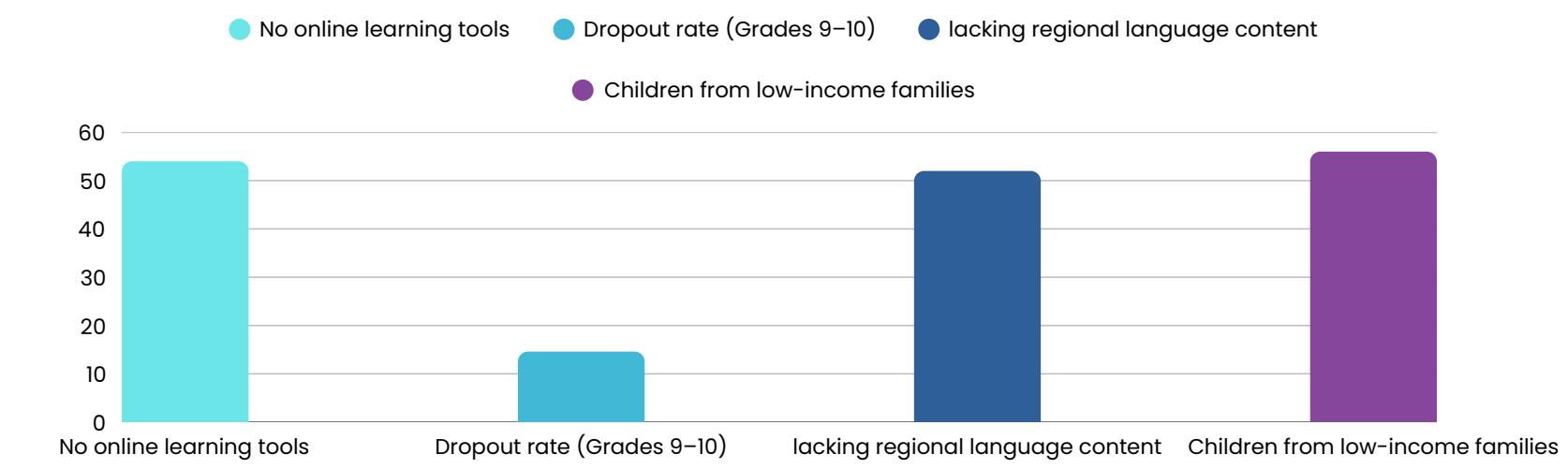
- AI-Generated Assessments – Used in Duolingo AI and Khan Academy AI.
- Visual & Regional Doubt Resolution – Implemented in Photomath and Google Translate.
- Gamified Learning & Engagement – Adopted by BYJU'S and Prodigy Games.
- Offline Learning Support – Enabled in Google Read Along and Wikipedia Kiwix.

SOLUTION OVERVIEW

An AI-powered, mobile-first educational app designed for underserved communities that Empowers students with accessible, personalized, and inclusive learning—anytime, anywhere.



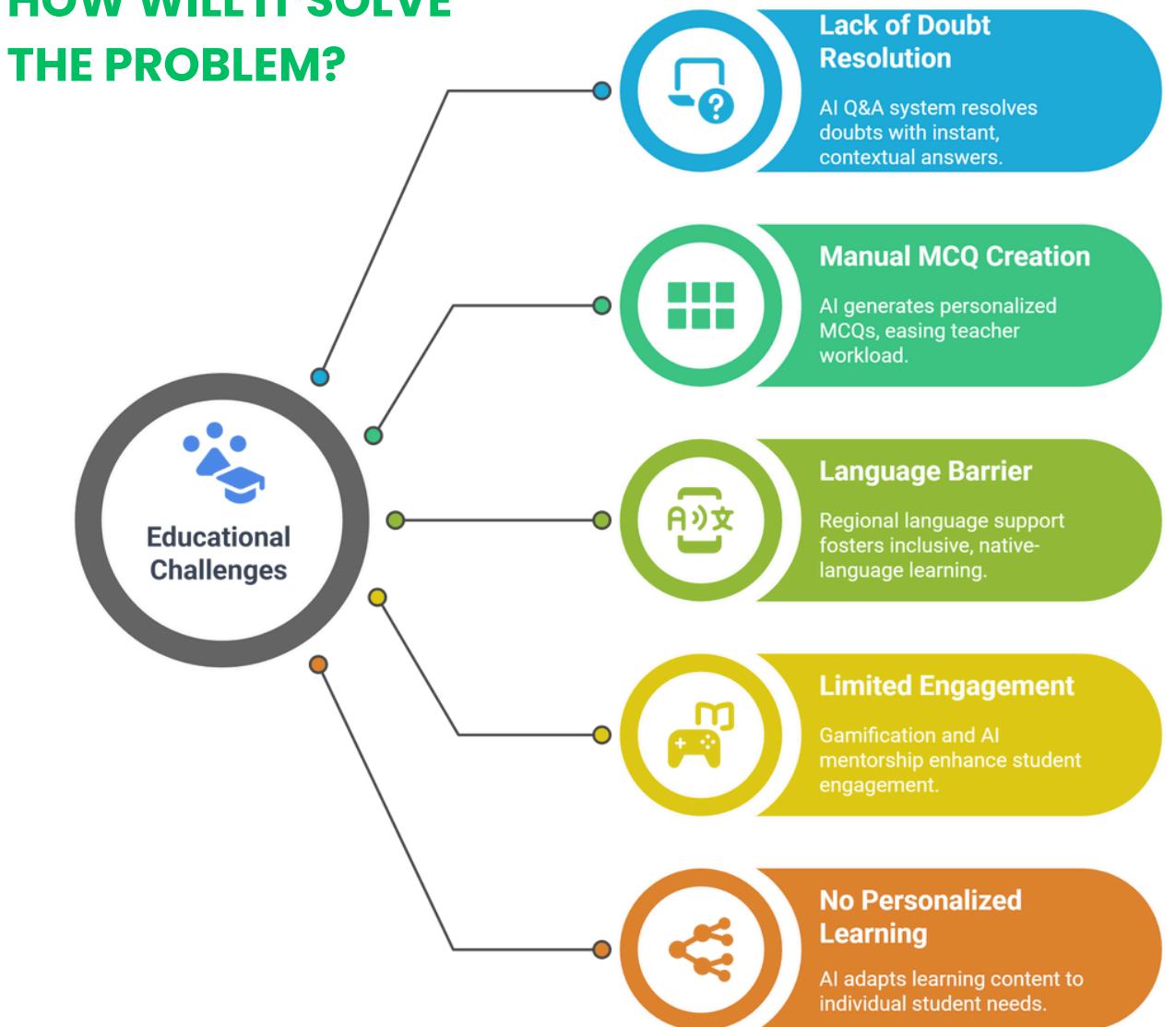
NATIONAL-LEVEL EDUCATION ACCESS DATA



HOW DIFFERENT IS IT FROM EXISTING IDEAS?

Feature	Existing Solutions	Proposed Solution
Regional Language Support	✗ Mostly English	✓ Multi-language AI support
AI-powered MCQ Generation	✗ No automation	✓ Auto-creates MCQs
Doubt Solving (Image/Audio)	✗ Text-based only	✓ Supports voice & image queries
Gamified Learning	✗ Minimal	✓ Integrated gamification
Personalized AI Mentor	✗ Generic content	✓ Tracks and adapts to learning style
Personalized Feedback & Reports	✗ One-size-fits-all approach	✓ Customized feedback and reports using AI

HOW WILL IT SOLVE THE PROBLEM?



UNIQUE SELLING POINTS



AI-Powered
Personalized Learning



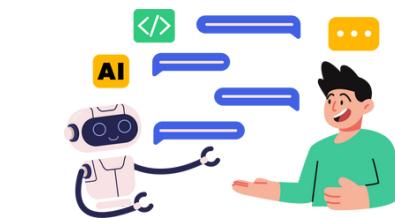
Visual Solutions for
Textbook Questions



Regional & Visual
Doubt Resolution



Gamified Learning &
Engagement



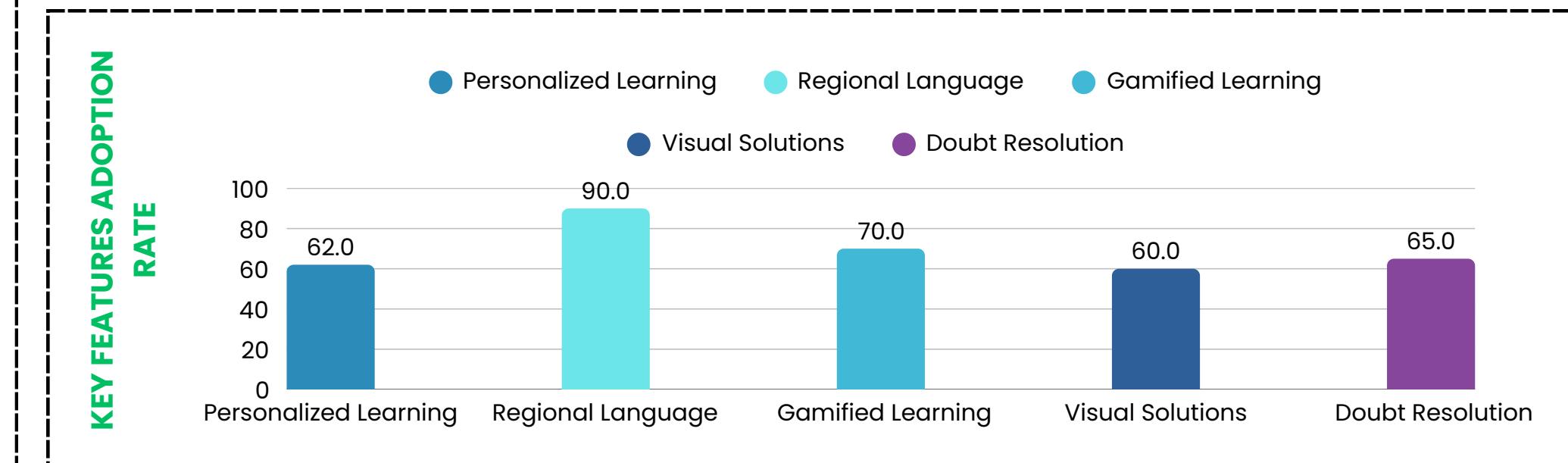
Personalized AI Tutor
& Feedback System



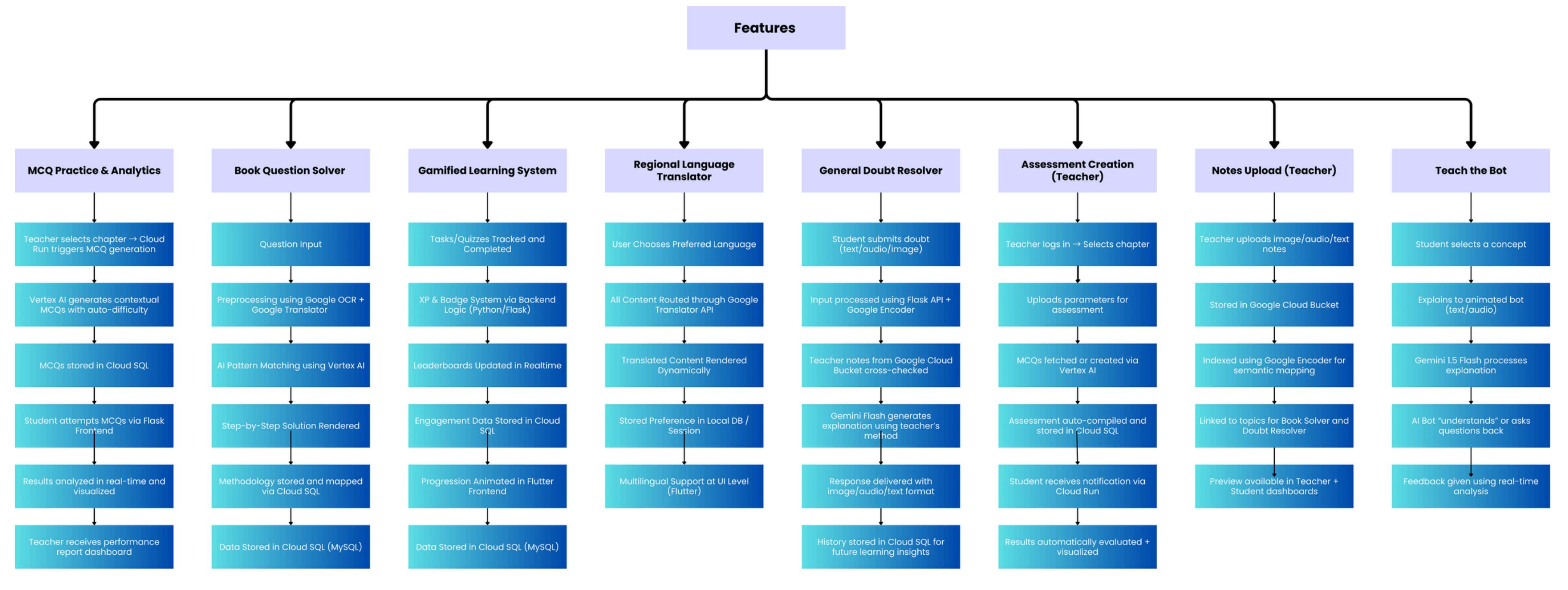
Full solution for all
stakeholders

AI-Powered MCQs	Automatically generates MCQs based on textbooks and student progress.
Provides images based step by step explanation	Visual Solutions 
Regional Support	Supports queries in multiple languages and through text, audio, or images.
FEATURES OFFERED IN THE SOLUTION	
Gamified Engagement	Implements leaderboards, achievements, and rewards to keep students motivated.
Adapts content and assessments to each student's learning needs.	Personalized Learning 
Progress Tracking	Tracks student performance and provides insights to teachers and parents.

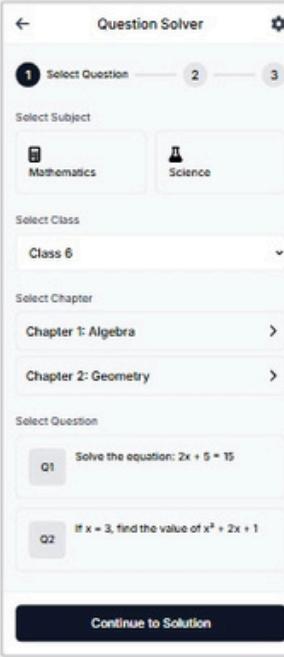
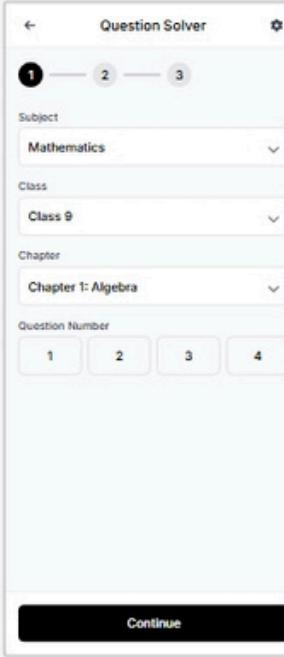
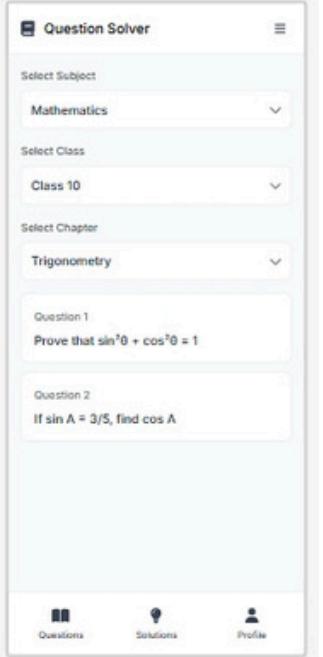
Features	Government Initiatives	Existing Solution
Video based explanation 	✗ No	✗ No
AI-Powered MCQs	✗ No	✗ No
Regional Language Support 	✓ Yes	✗ No
Personalized Explanation for Books 	✗ No	✗ No
Gamified Learning 	✓ Yes	✗ No
Personalized AI Tutoring 	✗ No	✗ No
Progress Tracking 	✗ No	✓ Yes

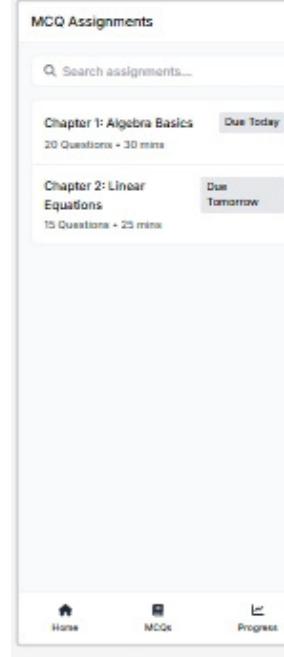
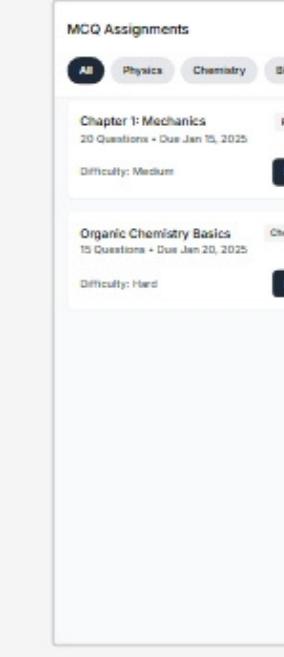
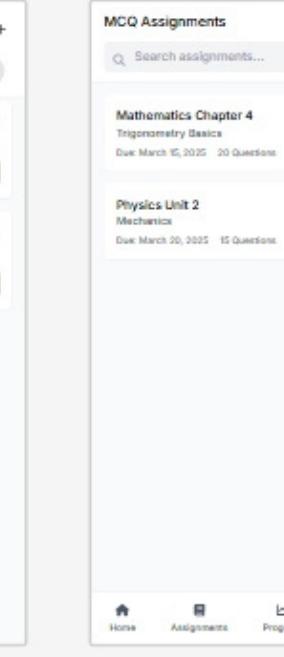


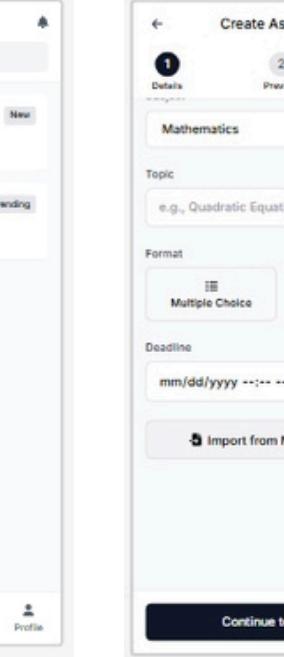
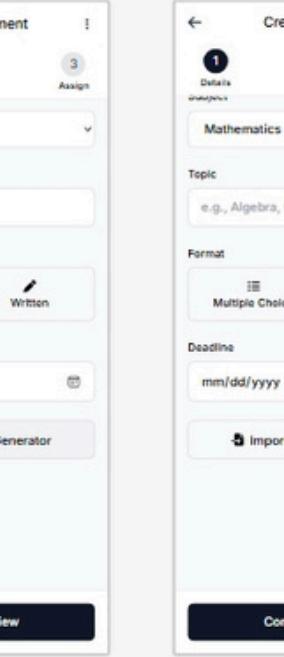
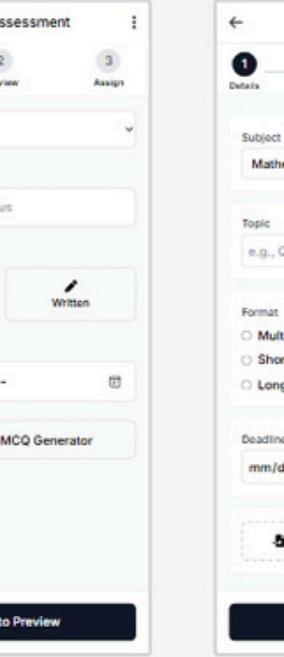
PROCESS FLOW DIAGRAM OF EACH FEATURE

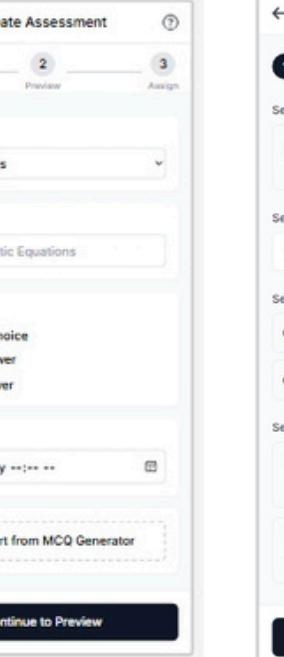


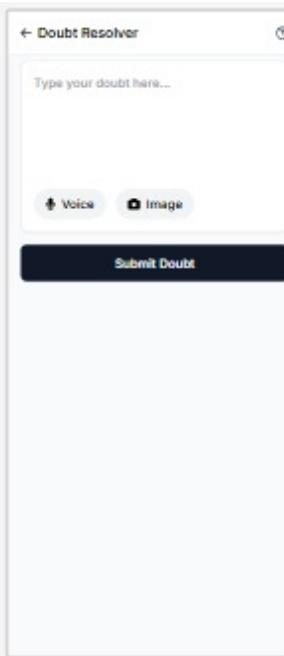
WIREFRAMES OF THE PROPOSED SOLUTION

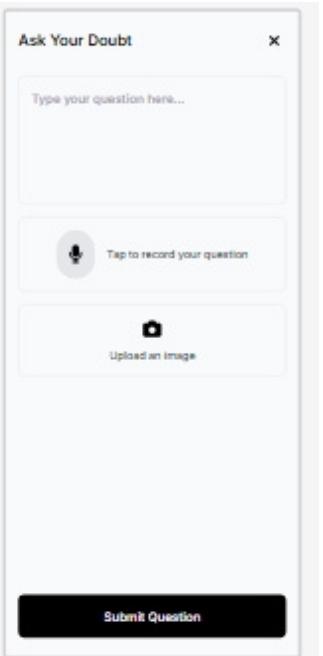




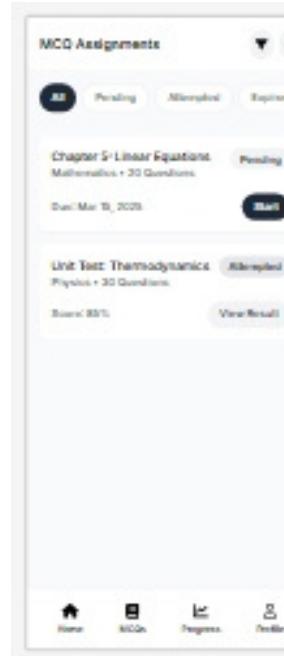
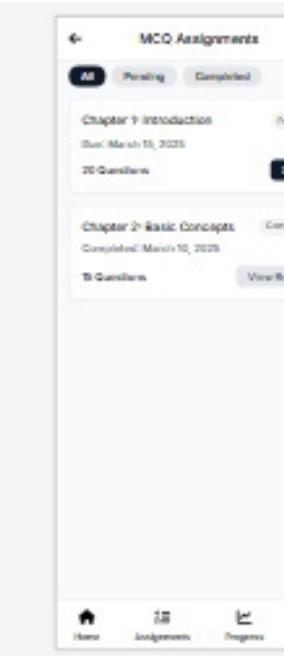
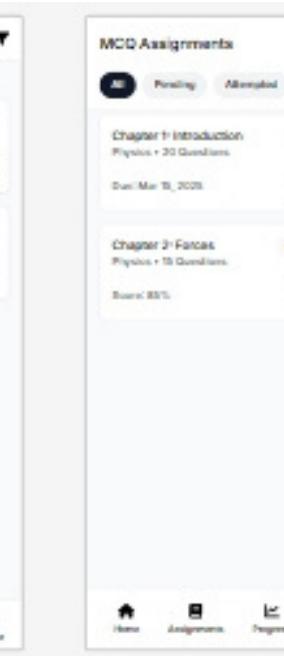




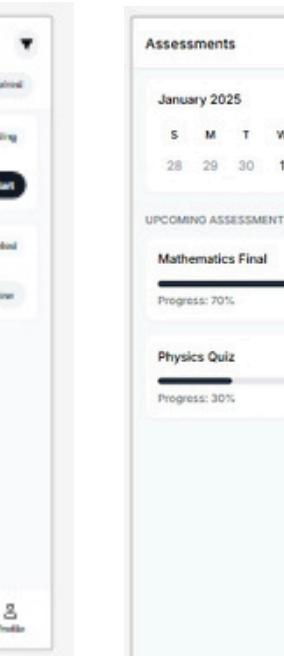
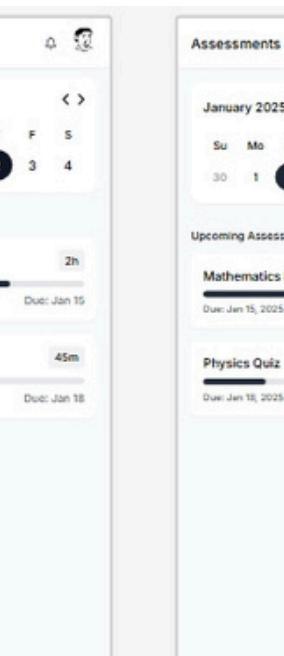
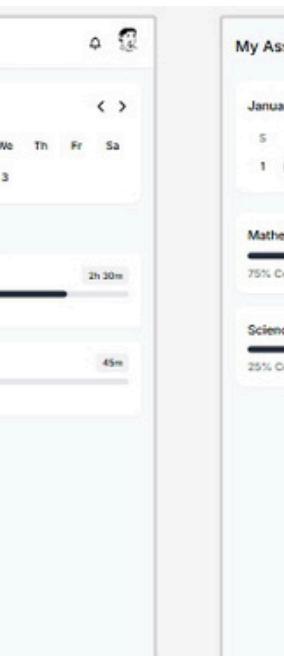




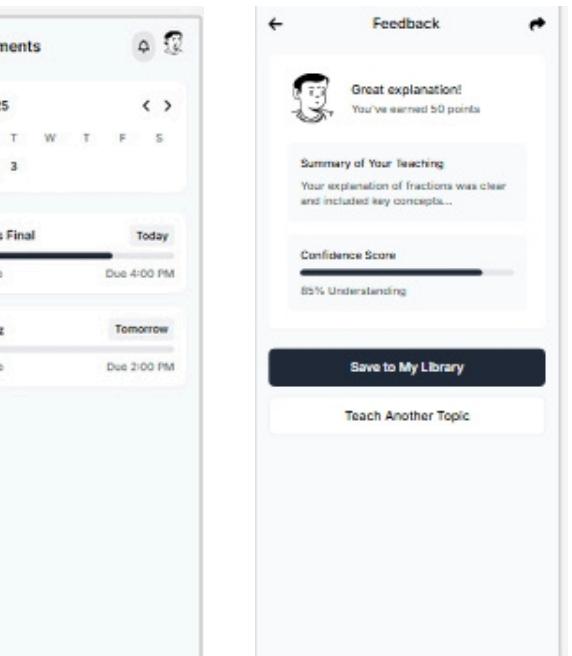






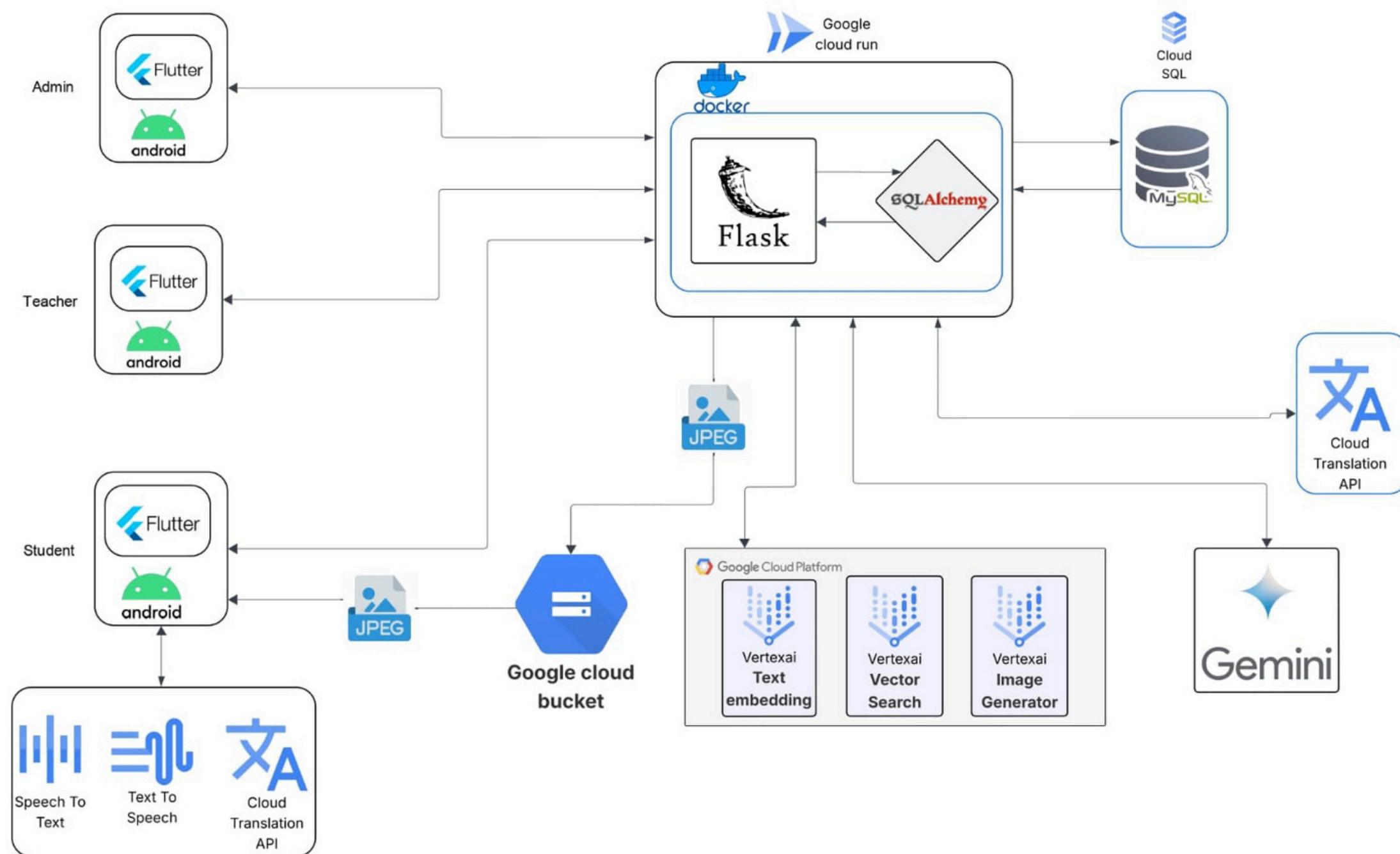




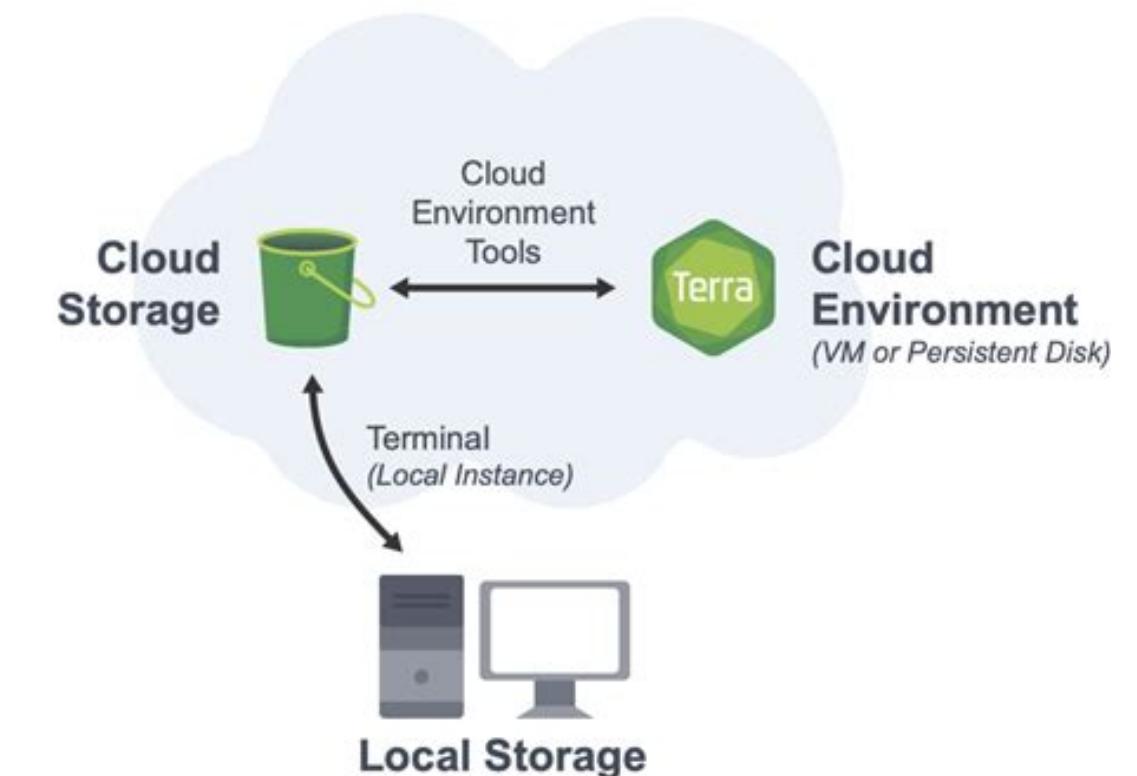


Note: These wireframes serve as preliminary blueprints for structural planning; the final application design has been refined and fully developed based on these foundational layouts.

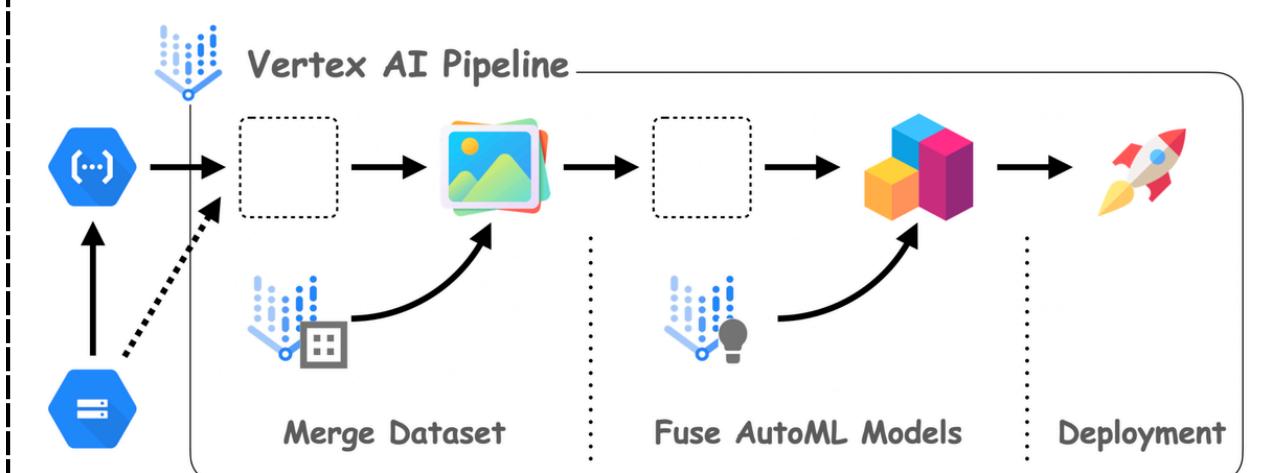
ARCHITECTURE DIAGRAM



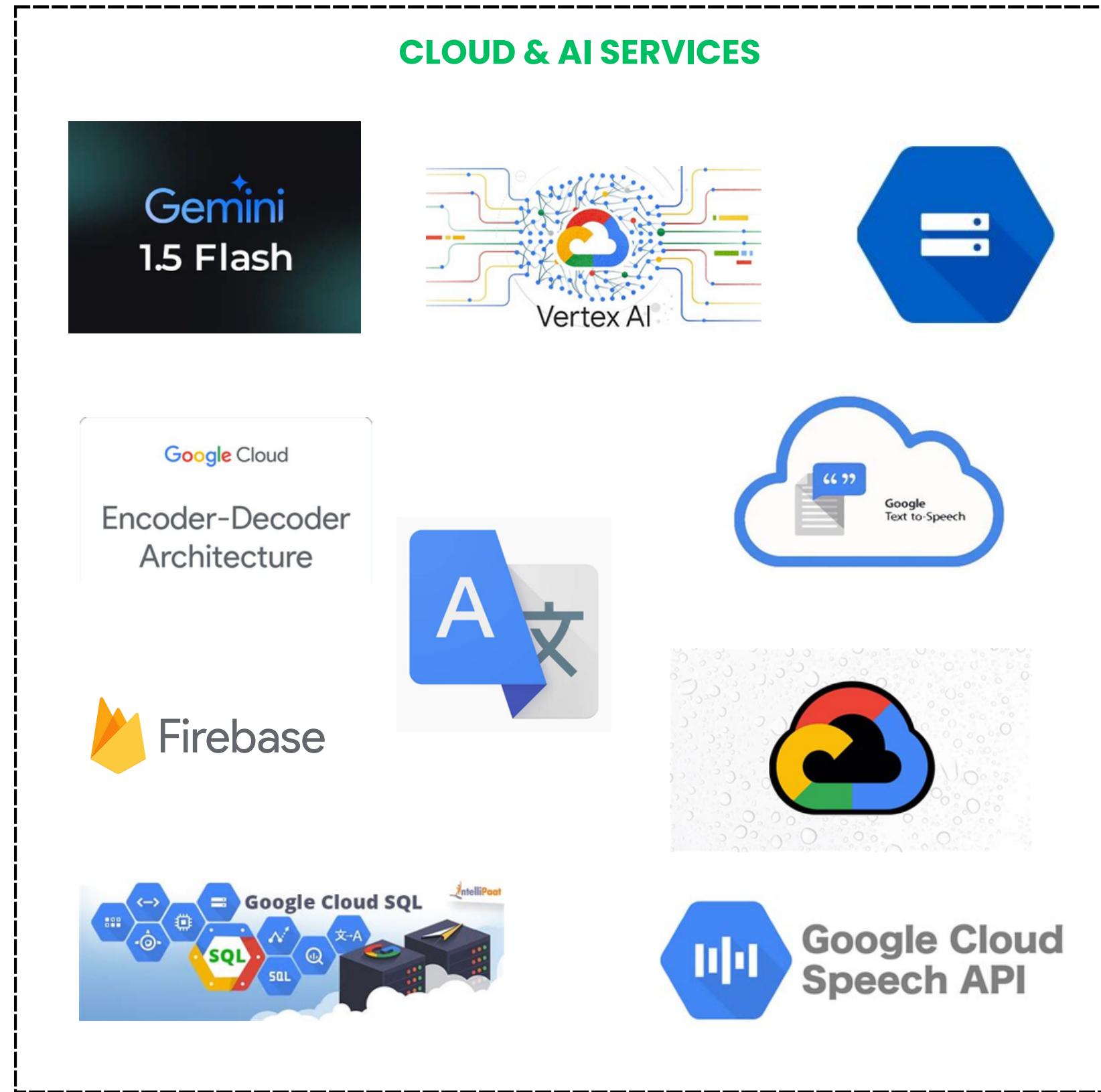
GOOGLE CLOUD BUCKET ARCHITECTURE



VERTEX AI PIPELINE ARCHIETURE WORKING IN THE GOOGLE CLOUD



CLOUD & AI SERVICES



Gemini 1.5 Flash

Vertex AI

Google Cloud

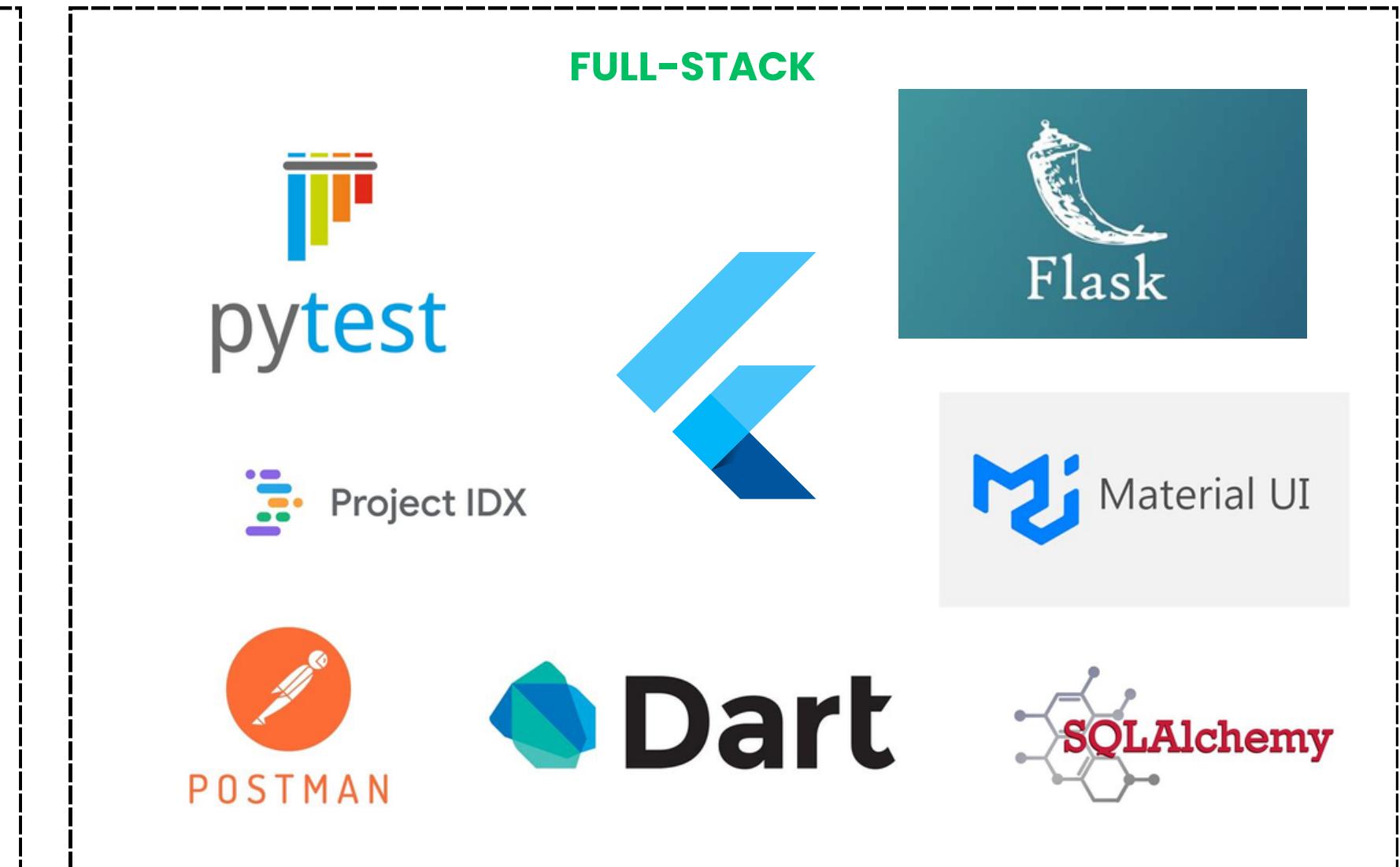
Encoder-Decoder Architecture

Firebase

Google Cloud SQL

Google Cloud Speech API

FULL-STACK



pytest

Project IDX

POSTMAN

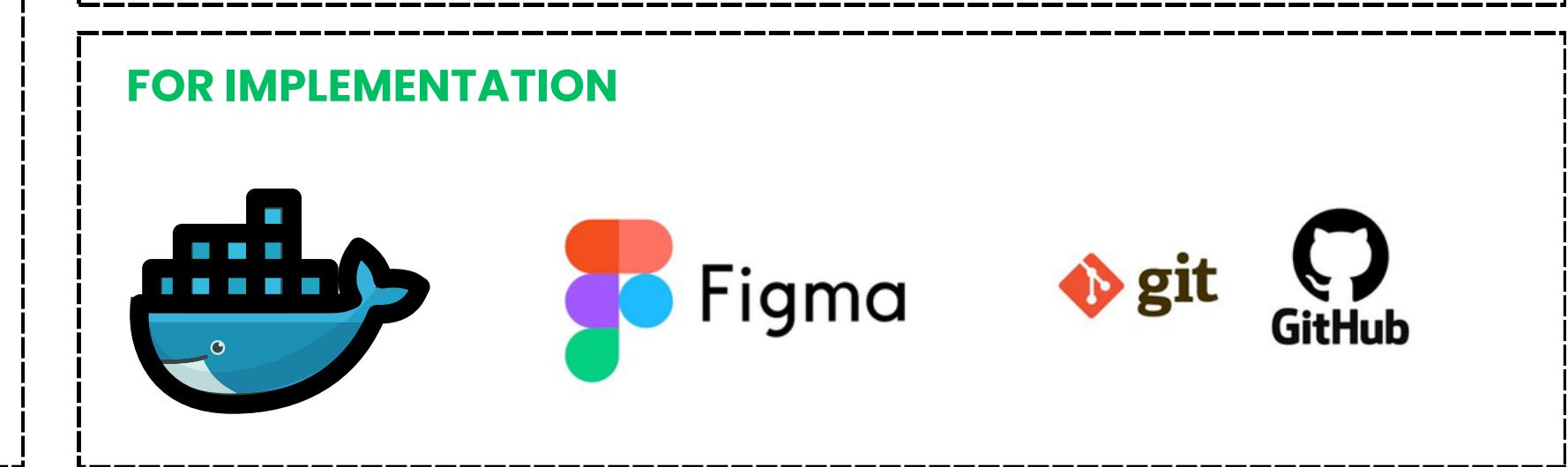
Dart

Flask

Material UI

SQLAlchemy

FOR IMPLEMENTATION



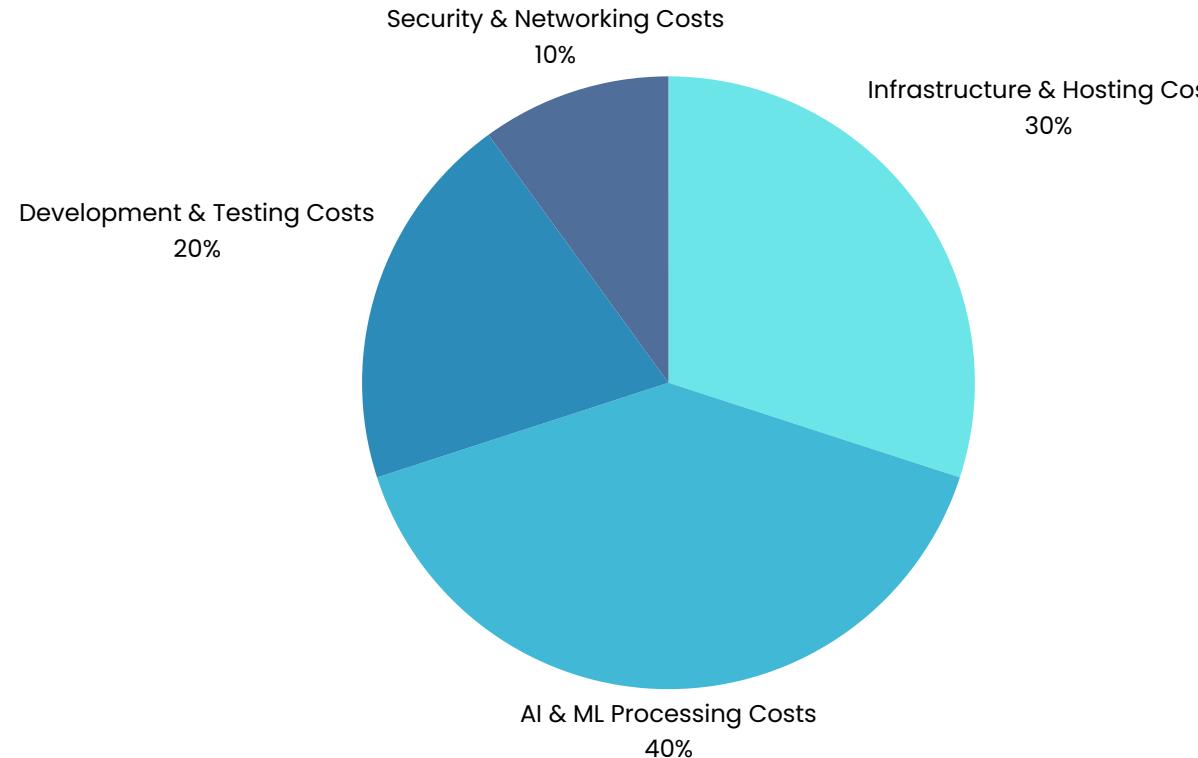
Docker

Figma

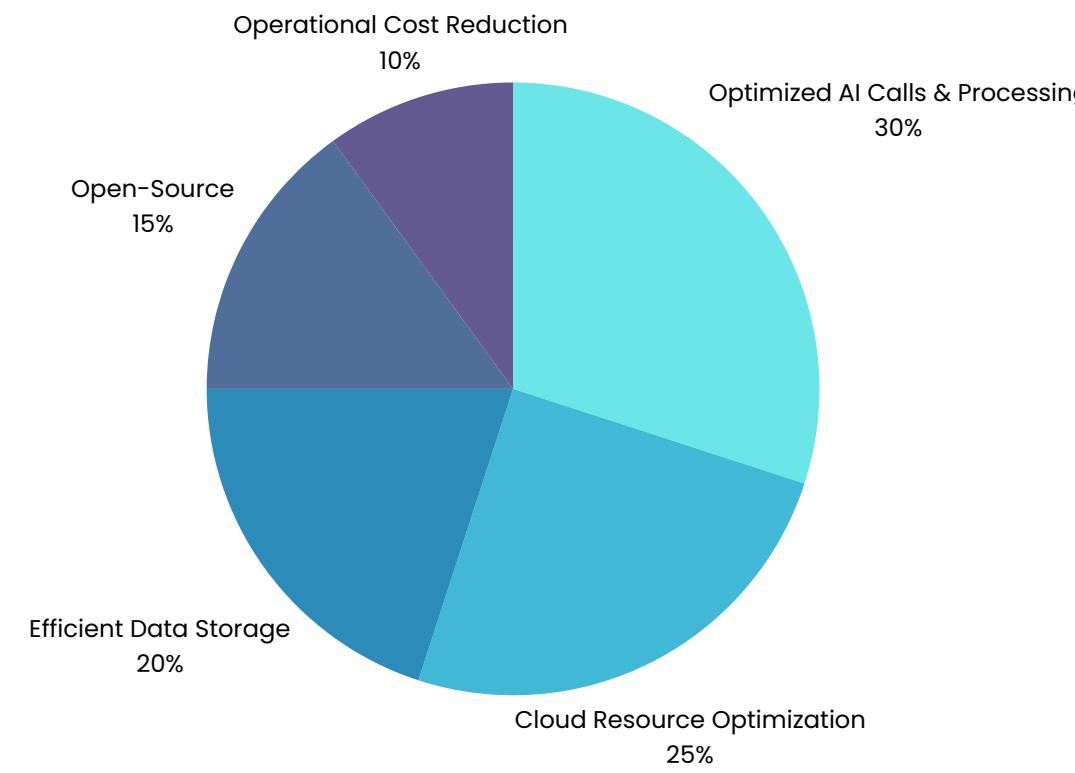
git

GitHub

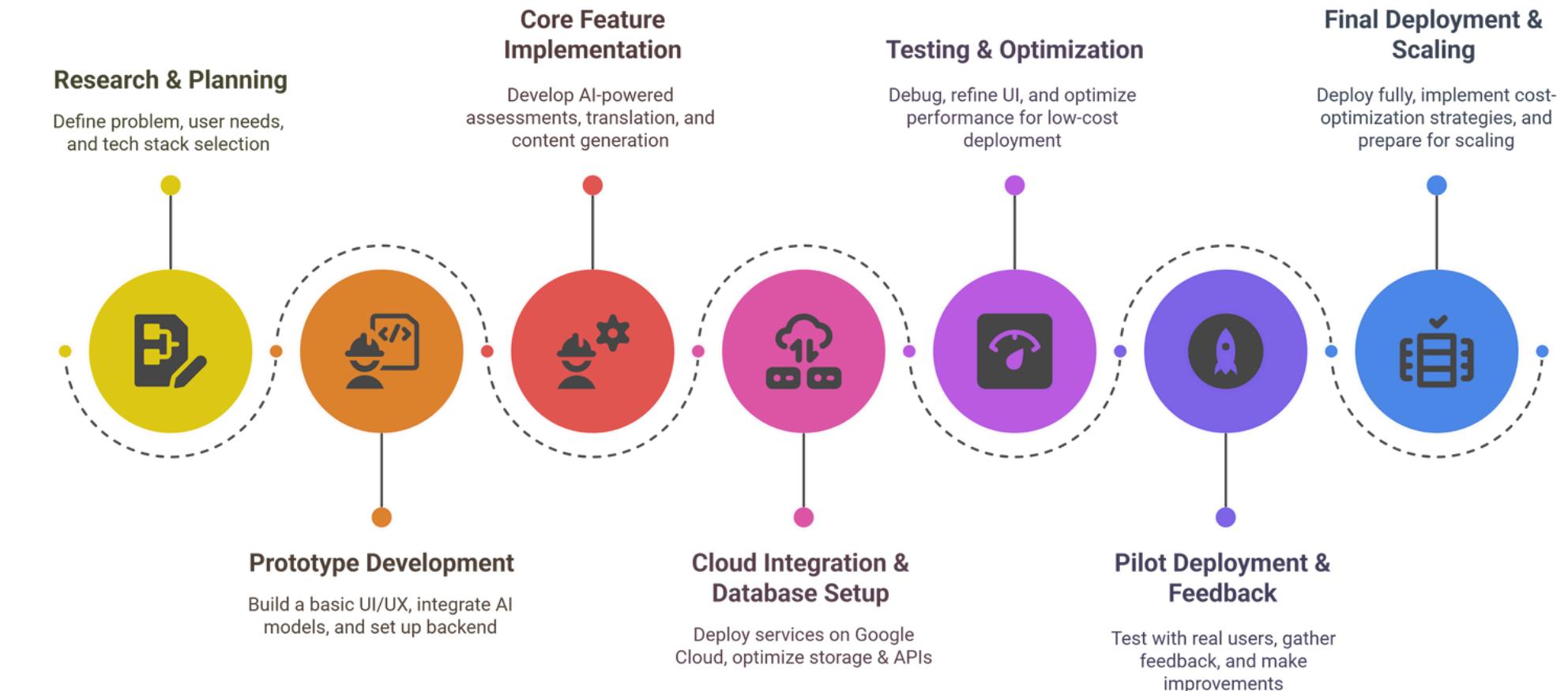
ESTIMATED IMPLEMENTATION COST – \$189.92



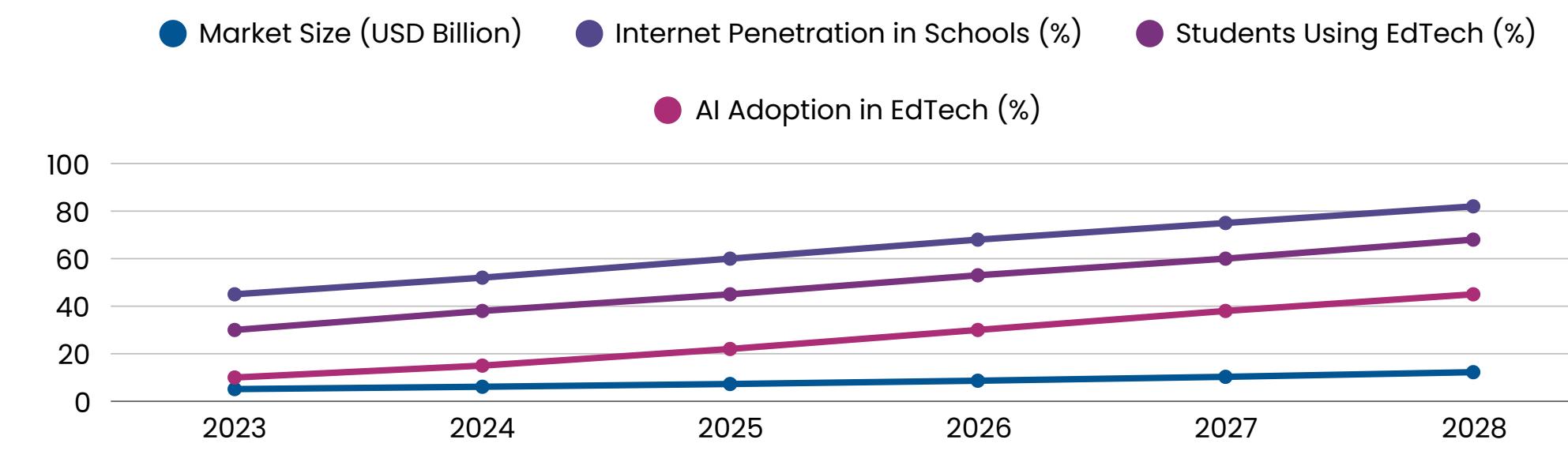
COST OPTIMIZATION FOCUS AREAS



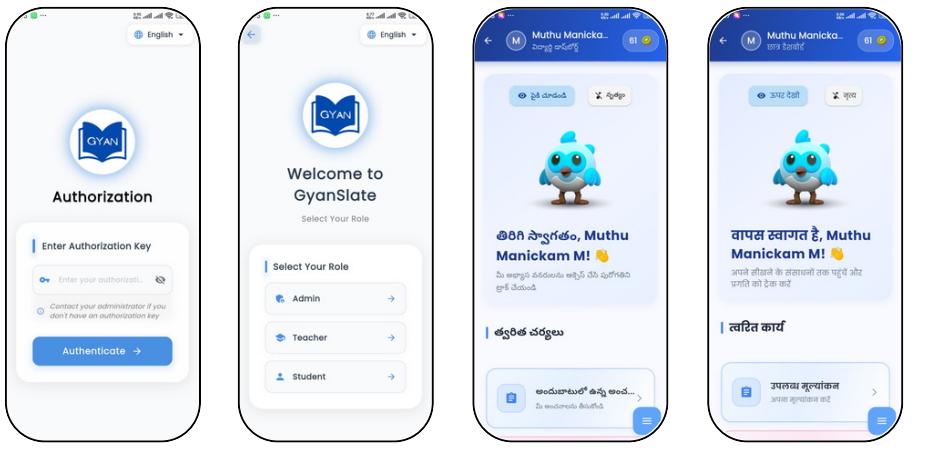
DEVELOPMENT TIMELINE



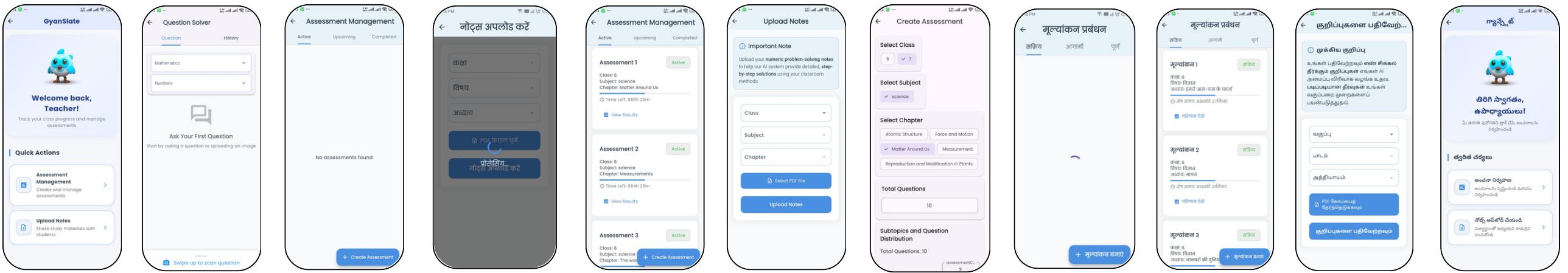
MARKET OPPORTUNITY



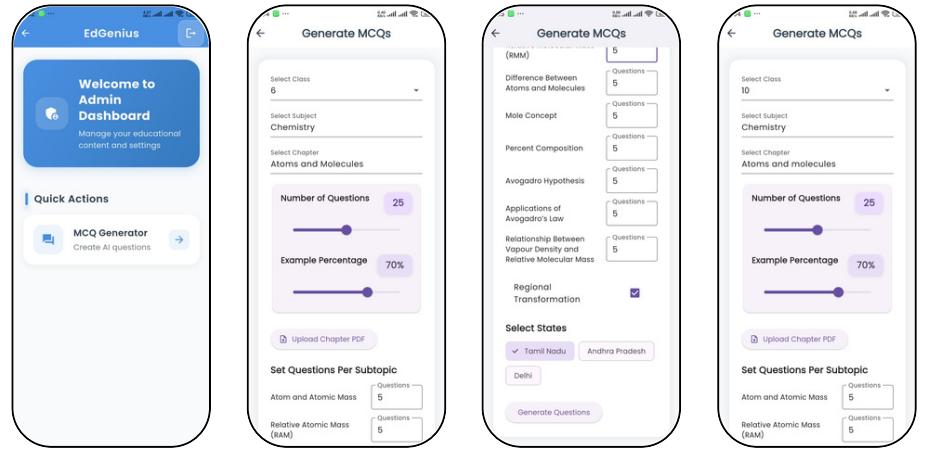
MAIN PAGES



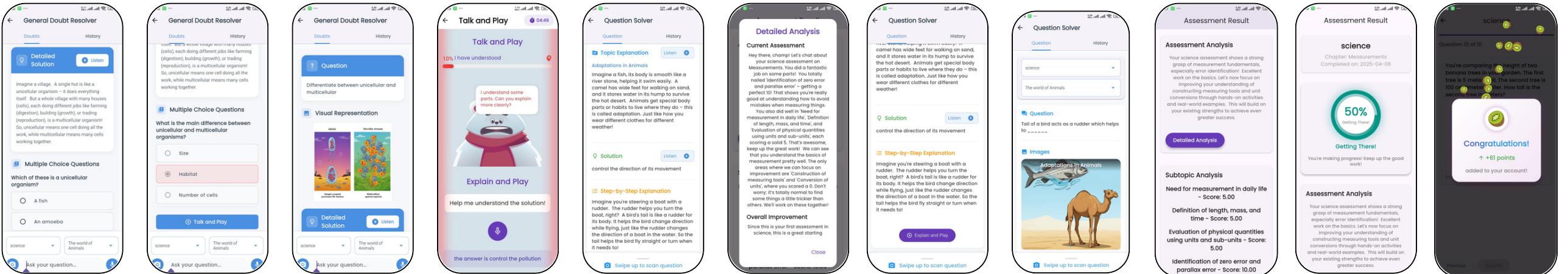
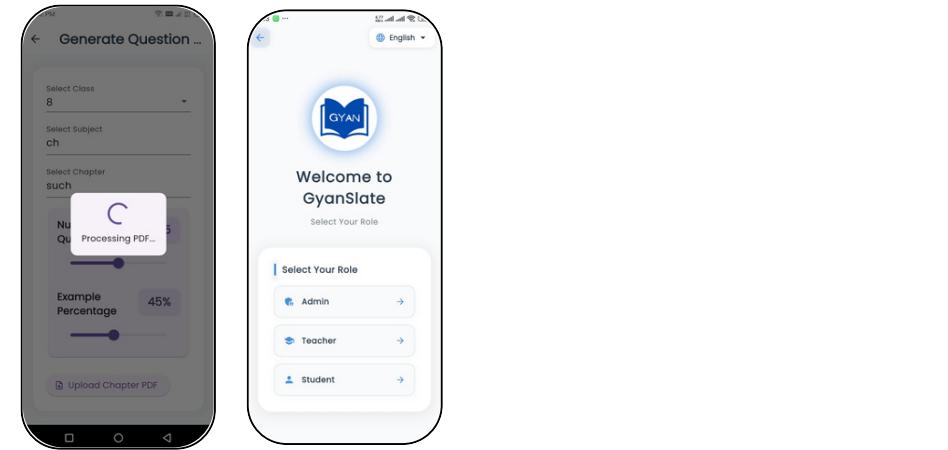
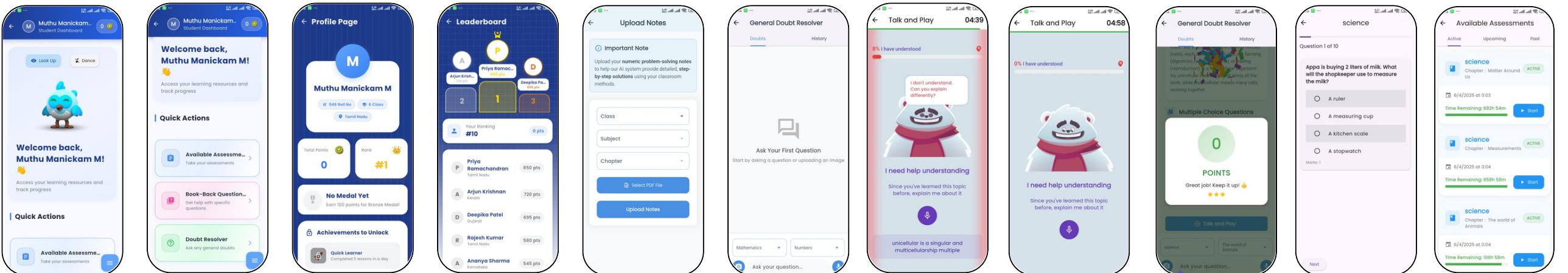
TEACHER PAGES



ADMIN PAGES



STUDENT PAGES



SCALABILITY

Device Compatibility

Ensures access on various devices



Cloud-Based Infrastructure

Enables seamless scaling to meet user demand

Modular Architecture

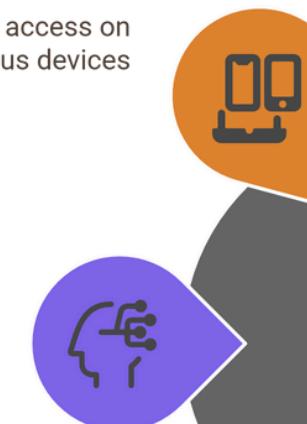
Allows easy addition of new features

Global & Multi-Language Support

Ensures accessibility in multiple languages

AI-Driven Adaptability

Personalizes learning paths for diverse users



Offline Access

Provides uninterrupted learning without internet

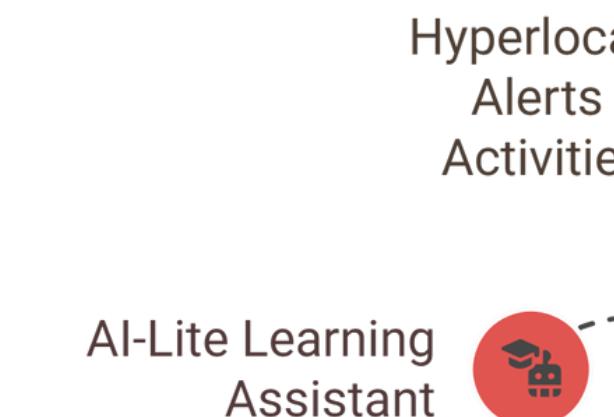


FEASIBILITY



FUTURE ENHANCEMENTS

Enhancing Education with Technology



Career & Skill Guidance



Scan-to-Solve Feature



Hyperlocal Alerts & Activities



Local Exam Preparation Mode



Offline Content Packs



Voice-Based Navigation



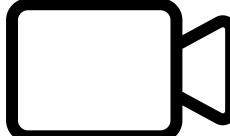
Peer-Learning Circles





Link

<https://github.com/GDSC-Rajalakshmi/team-unknown-GyanSlate>



Drive Link

https://drive.google.com/drive/folders/1RDhdYtLmBKDcsL_ZY9rZqsJJzxGZlXre



Drive Link - APK file for app

<https://drive.google.com/drive/folders/1QhwX0pqvqQb8UXn032PHyGk6GBA1AI2>

Auth key to access
eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJb2xlljoiYWxsliwiZXhwIjoxNzUxNzIzMzEzfQ.K5Ze_b8olwx1J2_rc-68hkwhrb0_hoAScQReT09sqFg

VIABILITY



High Demand 

Addresses gaps in underserved regions

Multi-User Support 

Supports students, teachers, and admins

EC2 **Low-Cost Deployment**

Utilizes cost-efficient tools for scalability

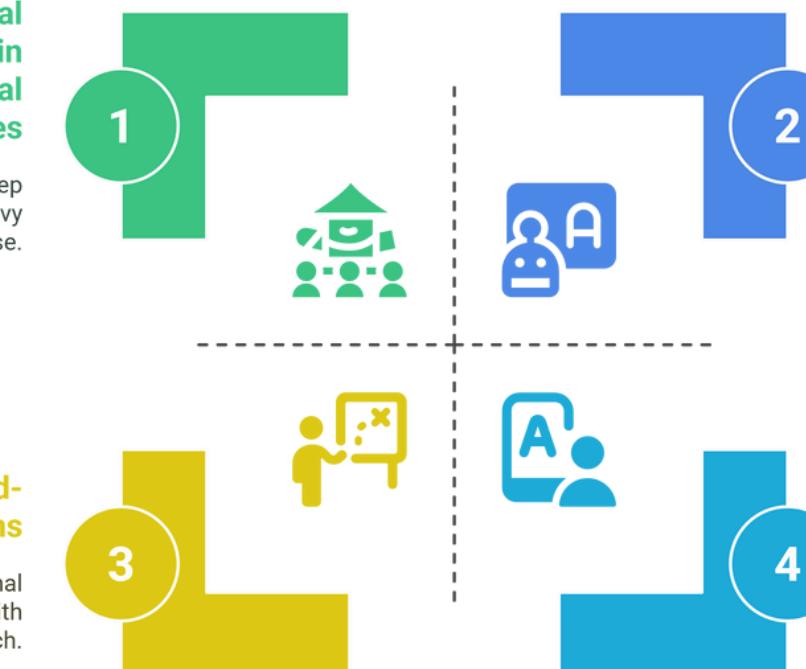
Government & NGO Alignment

Aligns with educational initiatives

NOVELTY

Contextual Learning in Regional Languages
Focuses on deep localization without heavy tech use.

Teacher-Method-Based Solutions
Emulates traditional teaching methods with minimal tech.



Gamified AI-Driven Learning
Integrates advanced AI with localized learning techniques.

Multi-Modal Doubt Input
Offers diverse input methods with high tech but low localization.

RESEARCH PAPERS

"AI in Education Statistics - AIPRM"

- This report provides comprehensive statistics on the adoption and impact of AI in education as of 2024. It highlights that 62% of educators observed improved student performance with AI-powered learning programs.

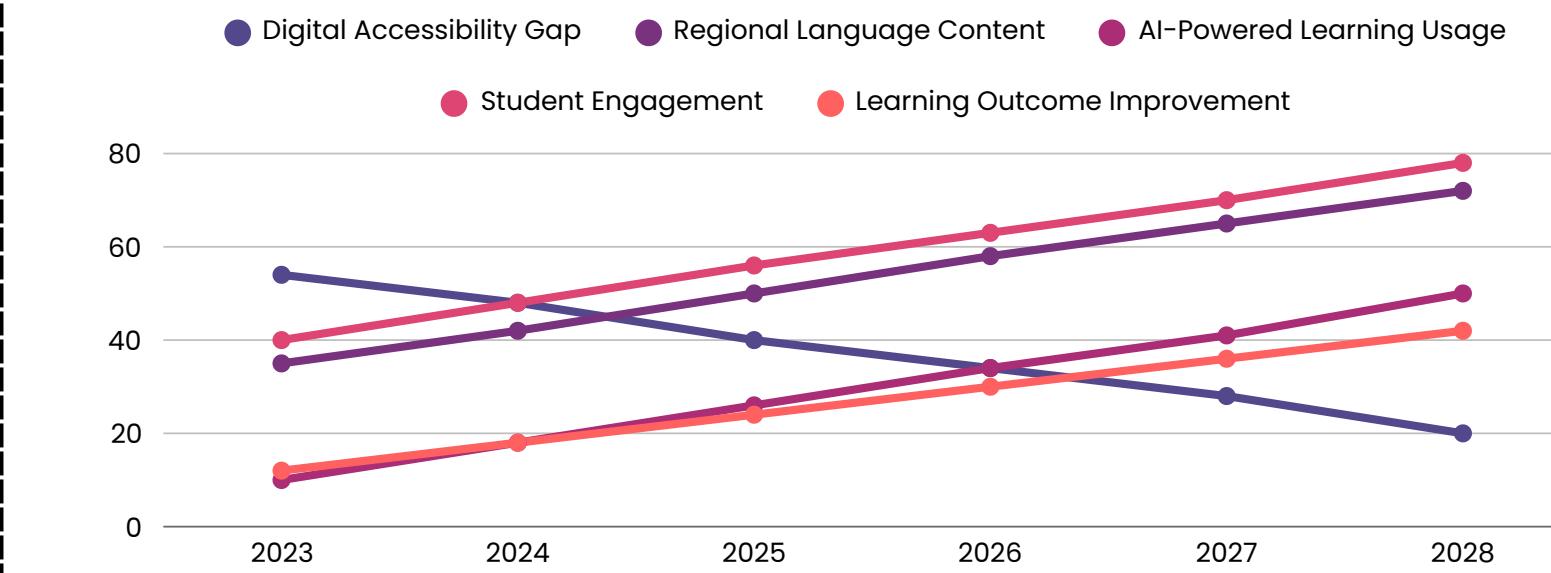
"Is AI the Key to Personalised Learning in India's Diverse Education System?"

- This article discusses how adaptive learning platforms, powered by AI, can assess a student's strengths, weaknesses, and learning styles in real time, offering tailored resources and support. It emphasizes AI's potential to bridge educational divides in India's diverse landscape.

"Artificial Intelligence in Indian Education: Transforming Teaching and Learning"

- This research paper explores current applications of AI in the Indian education system, focusing on personalized learning platforms and their role in enhancing educational outcomes.

ENHANCED COMBINED GRAPH TABLE: EDTECH CHALLENGES VS. OPPORTUNITIES IN INDIA (2023 - 2026) (%)



REFERENCE LINK

- 🔗 Dropout Rate (Grades 9–10) – [UDISEPlus Report](#)
- 🔗 Indian EdTech Market Size & Forecast – [GlobalData](#)
- 🔗 Internet Penetration in Indian Schools – [Ministry of Education Annual Report 2023–24](#)
- 🔗 EdTech & AI Adoption Trends – [Research and Markets](#)
- 🔗 India Online Education Market 2023–2027 – [Technavio](#)
- 🔗 India's Education Outlook 2024 – [Unlisted Intel](#)
- 🔗 India's EdTech Funding Trends – [Tracxn Report 2024](#)
- 🔗 India's Contribution to Global EdTech – [Grand View Research](#)
- 🔗 AI in Education – [NITI Aayog Discussion Paper](#)
- 🔗 Digital India e-Education Initiative – [MeitY](#)
- 🔗 State of Internet Connectivity in Indian Schools – [UNESCO UIS](#)
- 🔗 Use of Regional Languages in EdTech – [KPMG India Report](#)



Solution Challenge



Thank you

