Edu Tutor AI: Personalized Learning with Generative AI and LMS Integration

1.INTRODUCTION:

1.1 Project Overview

EduTutor AI is an intelligent educational platform that leverages Generative AI to provide personalized concept explanations, quiz generation, and student performance analytics. The system integrates with Learning Management Systems (LMS) to streamline the learning experience and adapt content based on individual student understanding.

1.2 Purpose

The purpose of this project is to enhance student engagement and improve learning outcomes through AI-driven tutoring, making quality education accessible and tailored to each learner's pace and needs.

2.IDEATION PHASE

2.1 Problem Statement

Students often face one-size-fits-all quizzes that don't adapt to their unique strengths or struggles. Educators lack a unified view of student performance to intervene strategically. Edu Tutor AI addresses both by generating adaptive assessments and providing live insights.

Problem Statement (PS-1):

Many students struggle with self-paced learning due to lack of instant feedback, unclear concept explanations, and absence of personalized quizzes or revision tools. Traditional LMS platforms are static and fail to cater to varying learning styles.

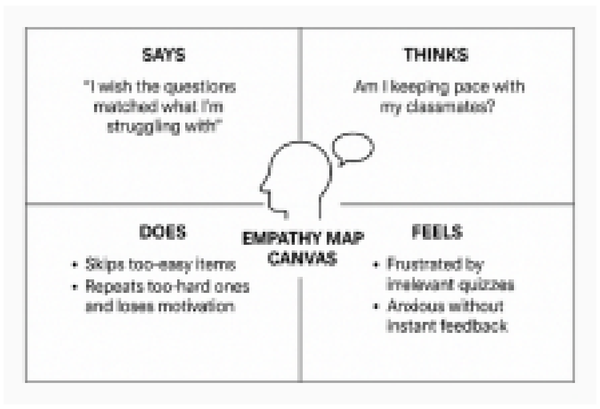
Problem Statement (PS-2):

I am an educator managing diverse learners, trying to monitor student progress and intervene early, but I only see static test scores without granular insights because assessments aren't linked to analytics— which makes me feel overwhelmed, unsure, and guilty.

2.2 Empathy Map Canvas

Says: "I need practice on what I find hardest."
Thinks: "Am I falling behind my classmates?"
Does: Skips exercises that feel too easy; gets discouraged by repeated failures.
Feels: Frustrated when quiz questions don't match what was taught; anxious without feedback.

➢ **Gain:** A system that explains simply, adapts to their pace, and provides quick tests


SAYS
"I wish the questions matched what I'm struggling with"
THINKS
Am I keeping pace with my classmates?
DOES
• Skips too-easy items
• Repeats too-hard ones and loses motivation
EMPATHY MAP CANVAS
FEELS
• Frustrated by irrelevant quizzes
• Anxious without instant feedback

2.3 Brainstorm & Idea Prioritization

Brainstorming provides a free and open environment that encourages everyone on the team to participate in creative problem solving. Prioritizing volume over value, out-of-the-box ideas are welcome and built upon, and all participants collaborate to develop rich solutions.

Step-1: Team Gathering, Collaboration and Select the Problem Statement

Brainstorming provides a free and open environment that encourages everyone within a team to participate in the creative thinking process that leads to problem solving. Prioritizing volume over value, out-of-the-box ideas are welcome and built upon, and all participants are encouraged to collaborate, helping each other develop a rich amount of creative solutions.We brainstormed features like subject-based quiz generation, answer evaluation, and performance tracking .

Step-2: Brainstorm, Idea Listing and Grouping

Idea	**Grouping**
LLM-powered dynamic quiz creation	Core feature
Instant scoring & feedback overlays	Core feature
Diagnostic test for initial skill mapping	Adaptive learning
Difficulty adjustment algorithm	Adaptive learning
Google Classroom auto-sync	LMS integration
Educator dashboard with mastery heatmaps	Analytics & insights
Gamification badges & leaderboards	Engagement
Offline mode with cached quizzes	Accessibility
Multilingual question generation	Globalization
) Voice-enabled quiz interaction for younger learners	Accessibility

Step-3: Idea Prioritization
Evaluated each idea on **Impact** (learning gain + teacher utility) and **Feasibility** (development effort):

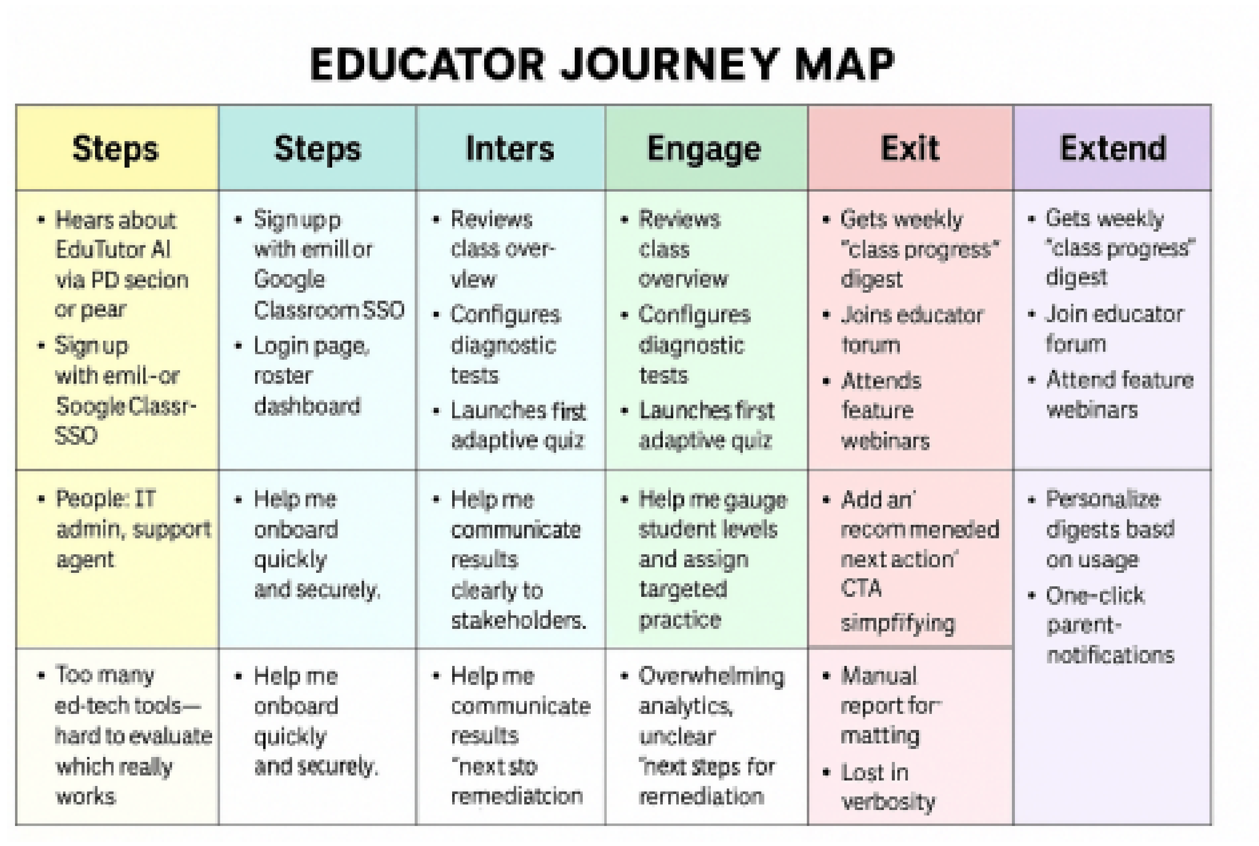
Idea		**Impact Feasibility Priority**	
Dynamic quiz creation	High	High	✓✓✓
Instant scoring & feedback	High	High	✓✓✓

Idea		**Impact Feasibility Priority**	
Diagnostic test for skill mapping	High	Medium	✓✓
Google Classroom auto-sync	High	Medium	✓✓
Educator dashboard with mastery heatmaps H		Medium	✓✓
Difficulty adjustment algorithm		h Medium	✓
Gamification badges & leaderboards	Med		✓
Offline mode	Low	Low	–
Multilingual question generation	Low	Low	–
Voice-enabled quiz interaction	Low	Low	–

Top Priorities:
• Dynamic quiz generation
• Instant scoring & feedback
• Diagnostic skill mapping
• Google Classroom synchronization
• Educator performance dashboard

3. REQUIREMENT ANALYSIS

3.1 Customer Journey map



EDUCATOR JOURNEY MAP

Steps	Steps	Inters	Engage	Exit	Extend
• Hears about EduTutor AI via PD secion or pear • Sign up with emil-or Soogle Classr- SSO	• Sign upp with emill or Google Classroom SSO • Login page, roster dashboard	• Reviews class over- view • Configures diagnostic tests • Launches first adaptive quiz	• Reviews class overview • Configures diagnostic tests • Launches first adaptive quiz	• Gets weekly "class progress" digest • Joins educator forum • Attends feature webinars	• Gets weekly "class progress" digest • Join educator forum • Attend feature webinars
• People: IT admin, support agent	• Help me onboard quickly and securely.	• Help me communicate results clearly to stakeholders.	• Help me gauge student levels and assign targeted practice	• Add an' recom meneded next action' CTA simpfifying	• Personalize digests basd on usage • One-click parent- notifications
• Too many ed-tech tools—hard to evaluate which really works	• Help me onboard quickly and securely.	• Help me communicate results "next sto remediatcion	• Overwhelming analytics, unclear "next steps for remediation	• Manual report for- matting • Lost in verbosity	

3.2 Solution Requirement

Functional Requirements

		tional Requirement (Epic) Sub Requirement Task)
FR-1	User login	• Allows a user to input their name to begin using the application. A personalized session is initiated for each user
FR-2	Course Synchronization	• Syncs a predefined list of available subjects (e.g., AI, DS, ML) to the user's profile. Mimics Google Classroom sync behaviorl
FR-3	Quiz & Assessment Management	• Dynamically generates a 3 to 6-question multiple choice quiz for a selected subject using the IBM Granite model. No answers or explanations include • Create and launch diagnostic tests via IBM Watsonx •Stores previously generated quizzes for each user within the session
FR-4	LMS Integration & Analytics Reporting	• Uses IBM Granite 3.3-2B Instruct model via transforms to generate quiz content dynamically based on subject prompt • Compute real-time scoring and feedback

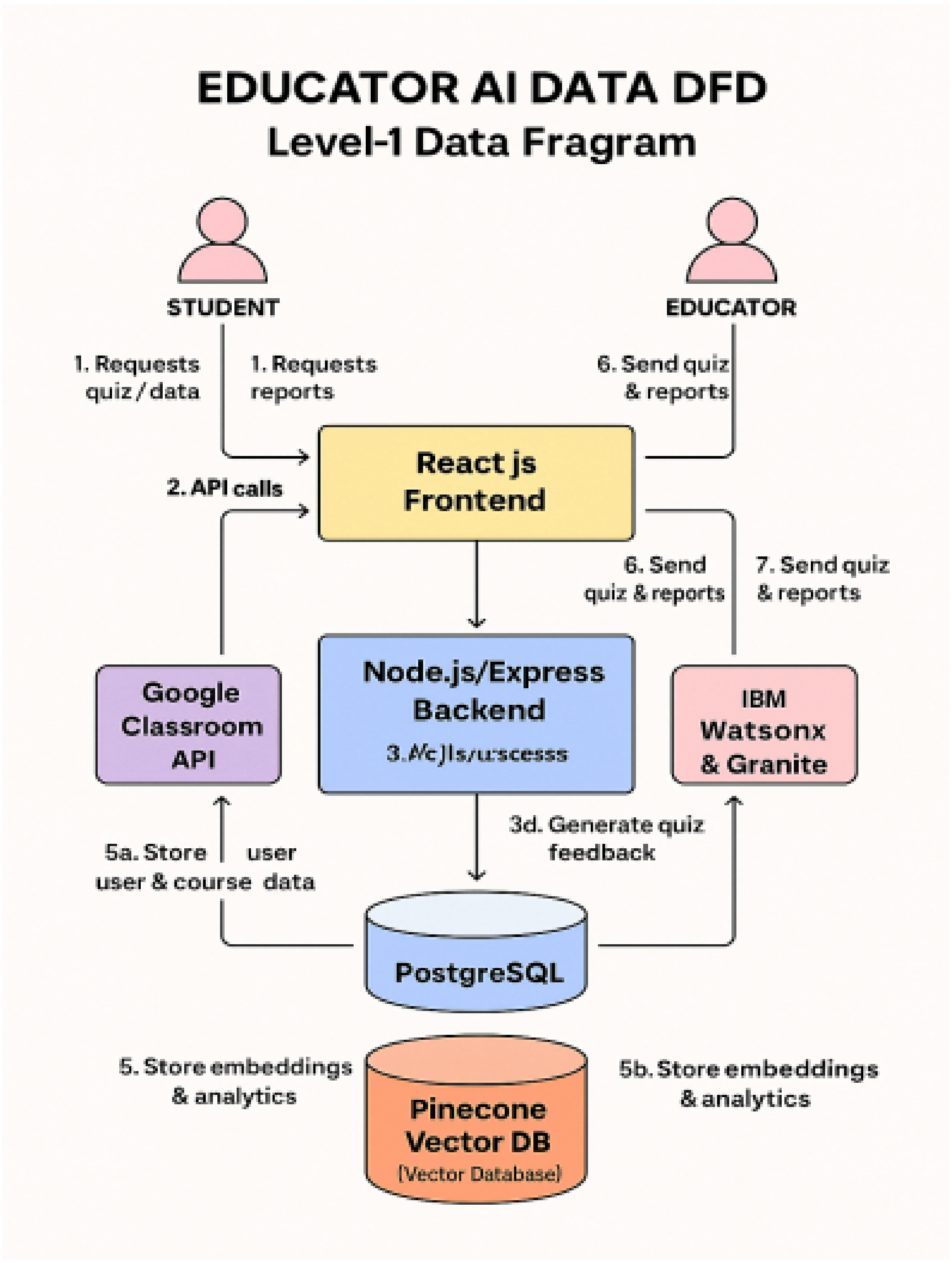
Non-functional Requirements

NFR No.	**Non-Functional Requirement**	**Description**
NFR-1	Usability	Users should be able to navigate tabs (Login, Quiz, Evaluation) with no training.
NFR-2	Security	Designed with simplicity and keyboard-friendly input; future versions can be enhanced to meet WCAG 2.1 AA accessibility standards
NFR-3	Reliability	99.9% uptime SLA; automated health checks and retries; graceful error handling with user-friendly messages
NFR-4	Performance	System should generate quizzes in less than 3 seconds per request. UI components must respond to clicks in under 500 ms.

System should be available at least 99% of the time during
NFR-5 Availability with auto-recovery enabled
school hours. Can be deployed via cloud

NFR-6 Scalability System support multiple concurrent users by using isolated session

3.3 Data Flow Diagram



Students/Educators send requests via the React.js frontend.
Frontend routes requests to the Node.js/Express backend.
Backend synchronizes rosters with Google Classroom and submits quiz-generation requests to AI services.
AI services return dynamically generated questions and feedback.
Backend persists profiles in PostgreSQL and analytical vectors in Pinecone.
Backend returns quizzes, scores, and performance heatmaps to the frontend.
Frontend renders results for students and educators.

3.4 User Stories

User Type	Functional Requirement (Epic)	Story #	User Story / Task	Acceptance Cri		

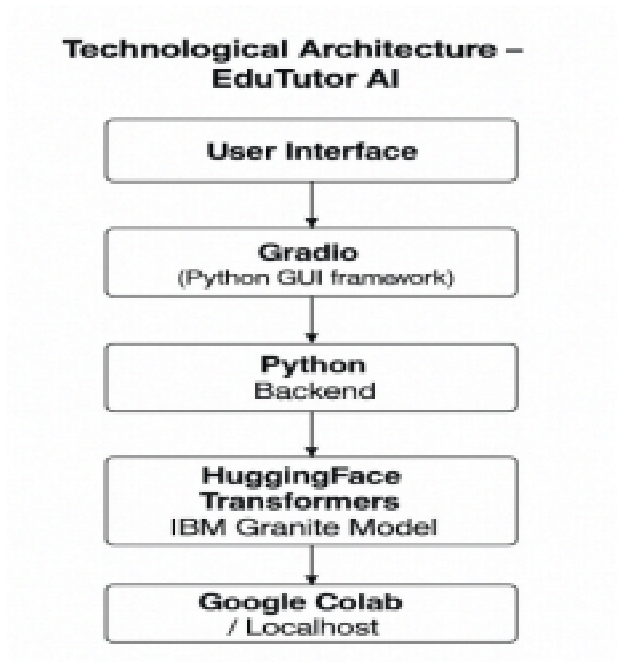
Student (Web)	login	USN -1	As a student, I can register with email and password so that I can create my Edu Tutor AI account.	• I complete registration form • I receive a "Welcome" • I land on my student dashboard	High	Sprint -1
Student (Web)	Course Synchronization	USN -2	As a student, I can register via Google Classroom SSO so that I sync my courses automatically.	• I authenticate with Google • My courses list appears in the dashboard	M S	
Student (Web)	User Confirmation	USN -3	As a student, I receive a confirmation email after registration so that my account is verified.	• I get an email with aconfirmation link • Clicking the link marks my account as "Verified" on U	High	Sprint -1
Student (Web)	Quiz & Assessment Management	USN -4	As a student, I can take a diagnostic test so that the system measures my proficiency level.	• I complete at least 6 questions • I see a summary report with strengths/weaknesses	High	Sprint -2
Student (Web)	Quiz & Answer Submissiont	USN -5	As a student, I can take an adaptive quiz so that questions adjust to my performance in real time.	• Each question adaptsbased on my previous answers • I receive instant feedback after each question	High	Sprint -2

Educat or (Web)	LMS Integration & Analytics Reporting	USN -6	As an educator, I can sync my class roster from Google Classroom so that Edu Tutor AImirrors my current student list.	• I initiate sync • Student names/IDs import successfully • I see the updated roster in “My Classes”	High	Sprint -2
Educat or (Web)	LMS Integration &	USN -7	As an educator, I can view a class	• Dashboard heatmap loads within 2 s	M S	

User Type	Functional Requireme nt (Epic)	Sto ry #	User Story / Task	Acceptance Cri		
	Analytics Reporting		performance heatmap so that I identify topic-level strengths and gaps.	• Weakest three topics are highlighted per student		
Educa to (Web)	Quiz & Assessment Management	USN -9	As an admin, I can view unverified accounts so that I can resend confirmation emails or deactivate stale registrations.	• I select topics and question count • A quiz preview appears • I can export the quiz or launch it directly for my class	M S	
Admin (Web)	Track Multiple Users	USN -1 0	As an admin, I can monitor system health metrics (API latency, error rate) so that I ensure platform reliability.	• In-memory dictionarie	Low	Sprint -4

3.4 Technology Stack

Table 1: Components & Technologies



	Component	**Description**	**Technology**
1	User Interface	How the user interacts with the system	React.js, HTML5, CSS3, JavaScript, Redux
2	Application Logic – Quiz Engine	Generates dynamic quizzes & feedback	Node.js, Express, Granite LLM, IBM Watsonx
3	Application Logic – Adaptive	Calibrates difficulty & diagnosticscoring	Python, IBM Watsonx models
4	Application Logic – LMS Sync	Syncs roster and assignments via LMS	Node.js, Google Classroom API (OAuth2)
5	Database	Relational metadata storage	PostgreSQL
6	Cloud Database	Vector embeddings & analytics data	Pinecone Vector DB
7	File Storage	Stores logs, reports, and expor	
8	External API – Google Classroom	Fetches courses, students, and assignments	Google Classroom REST API
9	External API – Email Service	Sends confirmation, reminders, and reports	SendGrid (or AWS SES)

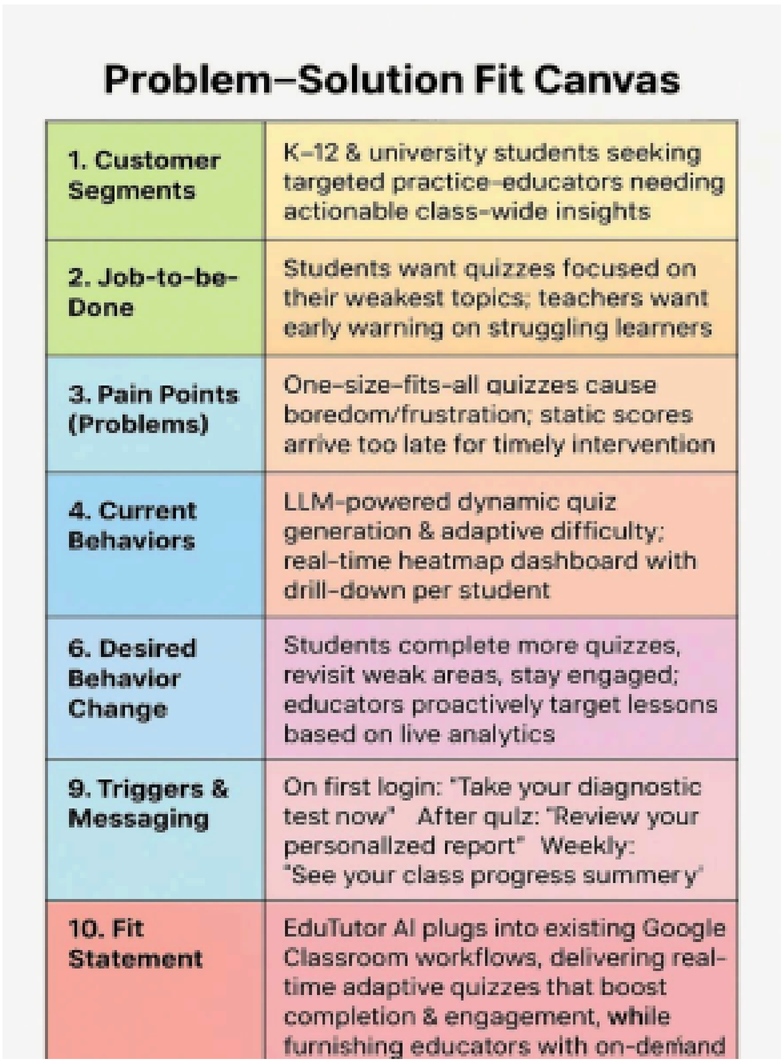
10	Machine Learning Models	LLM-based question generation and diagnostic assessment	IBM Granite foundation models; Watsonx NLU/NLG
11	Infrastructure	Hosts and scales services	AWS ECS (Fargate), Docker, GitHub Actions CI/CD

Table 2: Application Characteristics

S. No	Characteristic	Description	Technology / Approach
1	Open-Source Frameworks	Core frameworks used	React.js, Node.js, Express, Redux
2	Security	Authentication, encryption, and access control	OAuth2, JWT, TLS 1.2+, AES-256, IAM roles
3	Scalability	Supports increasing load via modular microservices	AWS ECS auto-scaling, Docker containers
4	Availability	Ensures uptime and disaster recovery	Multi-AZ deployment, ALB load balancers, backups
5	Performance	Low latency and high throughput	Redis cache for sessions/results, AWS CloudFront CDN

Circuit breakers, CloudWatch alerts, retries

6 Reliability Robust error handling and health monitoring


Problem–Solution Fit Canvas

1. Customer Segments	K–12 & university students seeking targeted practice-educators needing actionable class-wide insights
2. Job-to-be-Done	Students want quizzes focused on their weakest topics; teachers want early warning on struggling learners
3. Pain Points (Problems)	One-size-fits-all quizzes cause boredom/frustration; static scores arrive too late for timely intervention
4. Current Behaviors	LLM-powered dynamic quiz generation & adaptive difficulty; real-time heatmap dashboard with drill-down per student
6. Desired Behavior Change	Students complete more quizzes, revisit weak areas, stay engaged; educators proactively target lessons based on live analytics
9. Triggers & Messaging	On first login: "Take your diagnostic test now" After quiz: "Review your personalized report" Weekly: "See your class progress summery"
10. Fit Statement	EduTutor AI plugs into existing Google Classroom workflows, delivering real-time adaptive quizzes that boost completion & engagement, while furnishing educators with on-demand

4. PROJECT DESIGN

4.1 Problem Solution Fit

Many students struggle to understand complex academic concepts on their own and lack the ability to assess their knowledge effectively. Students and self-learners often face difficulty in finding personalized, adaptive learning content that matches their pace and understanding level.Educators struggle with time-consuming manual quiz creation and monitoring student performance effectively.

Solution

EduTutor AI is a personalized learning platform that uses generative AI to explain concepts in a simplified manner, offer grammar assistance (in Hindi and English), and dynamically create personalized quizzes for a wide range of subjects:

This solution directly addresses students' needs for clarity, practice — while reducing effort for educators in content preparation.

4.2 Proposed Solution

	Parameter	Description

1	Problem Statement (Problem to be solved)	Students often lack access to personalized learning tools that adaptto their interests and performance
2	Idea / Solution description	An EduTutor AI is an AI-powered educational assistant that personalizes the learning experience..
3	Novelty / Uniqueness	it allows dynamic quiz creation on any synced subject and provides automated evaluation with scoring and a performance dashboard, all in a user-friendly Gradio interface.
4	Social Impact / Customer Satisfaction	EduTutor AI enhances accessibility and personalization in education. It empowers students with adaptive learning, helps teachers save time, and provides low-cost AI-based education tools, thereby reducing learning disparities—especially beneficial in remote or underserved areas.
5	Business Model (Revenue Model)	Freemium: basic adaptive quizzes free for individual teachers; Premium tier ($5–10/user/mo) unlocks advanced analytics, district-wide reporting, Single Sign-On integrations, and priority support for schools and educational networks.
6	Scalability of the Solution	The solution can scale to support additional subjects, languages, and education boards. It can be integrated with more LMS platforms (like Moodle, Canvas), and deployed across schools, colleges, and training institutes globally via cloud platforms like IBM Cloud.

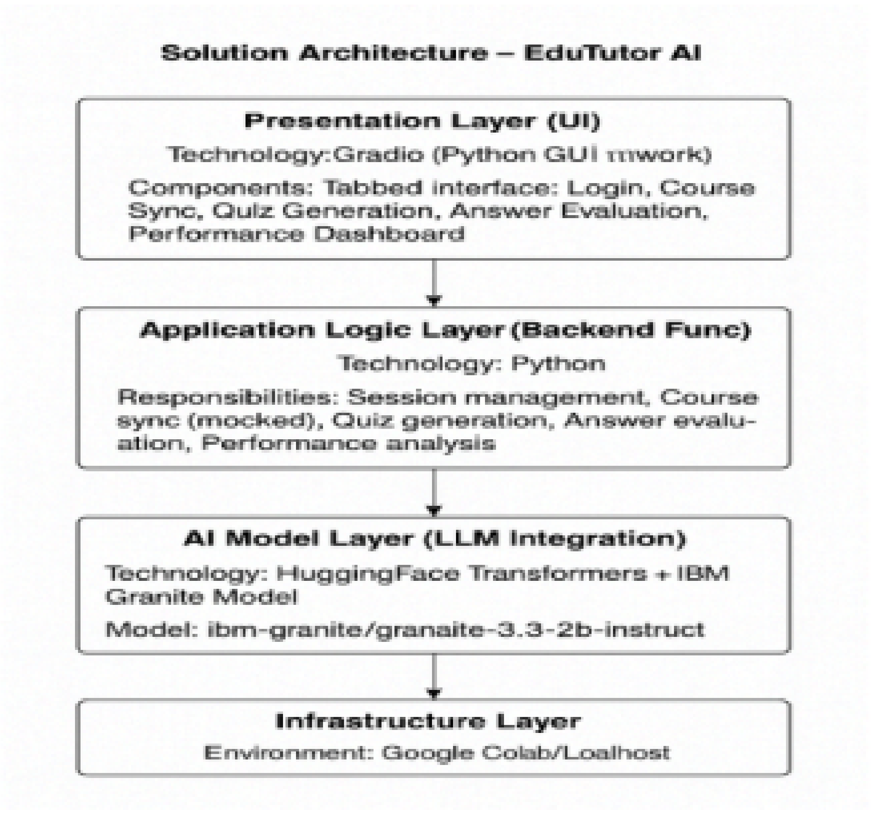
4.3 Solution Architecture

Solution architecture is a complex process – with many sub-processes – that bridges the gap between business problems and technology solutions. Its goals are to:

➢ The EduTutor AI platform follows a modular, layered architecture designed for simplicity, scalability, and real-time interaction. At the presentation layer, it uses a Gradio-based UI that offers a user-friendly tabbed interface for login, course sync, quiz generation, answer evaluation, and performance review.

➢ The application logic is built entirely in Python and handles core functionalities like user session management, quiz history tracking, and performance evaluation. IBM Granite's large language model is integrated through Hugging Face Transformers, enabling dynamic quiz generation based on subject prompts.

➢ The platform runs in lightweight environments such as Google Colab or local machines and stores session data in-memory for simplicity.


Solution Architecture – EduTutor AI
Presentation Layer (UI)
Technology:Gradio (Python GUI rrwork)
Components: Tabbed interface: Login, Course Sync, Quiz Generation, Answer Evaluation, Performance Dashboard
Application Logic Layer (Backend Func)
Technology: Python
Responsibilities: Session management, Course sync (mocked), Quiz generation, Answer evalu-ation, Performance analysis
AI Model Layer (LLM Integration)
Technology: HuggingFace Transformers + IBM Granite Model
Model: ibm-granite/granaite-3.3-2b-instruct
Infrastructure Layer
Environment: Google Colab/Loalhost

5. PROJECT PLANNING & SCHEDULING

5.1 Project Planning

1. Product Backlog, Sprint Schedule, and Estimation

Sprint	Epic	User Story No.	User Story / Task	Story Points	Priority	Team Members
Sprint-1	Login & Session Managemen	USN-1	As a student, I want to log in with my name to start using the app.	2	High	Sharon
	Course Sync		As a student, I want to sync subjects so I can generate course-specific quizzes	1	High	Sasidhar
Sprint-1	User Registration	USN-3	As a student, I want to log in with my name to start using the app.	2	Medium	Sharon,Sasi dhar
Sprint-1	Session Tracking	USN-4	As a user, I can track my sessions after login.	1	High	Sharon,Sasi dhar

Sprint	Epic	User Story	User Story / Task	Story Point	Priority	Team Members

		No.		s		
Sprint-2	Concept Understanding	USN-5	As a user, I can enter a concept and get AI-generated explanation.	5	High	Sasidhar
Sprint-2	Quiz Generation	USN-6	As a student, I want to generate a quiz based on selected subject.	5	High	Sharon,teja
Sprint-2	Answer Evaluation	USN-7	As a student, I want to submit my quiz answers and get a score.	3	M S	
Sprint-3	Performance Dashboard	USN-8	As a student, I want to view my past scores and average performance	5	High	Sharon
Sprint-3	Gradio UI Setup	USN-9	As a developer, I can create a multi-tab UI usingGradio.	3	M S	

2. Sprint Schedule & Story-Point Tracking (Burndown Dashboard)

Sprint	Total Story Points	Duration	Start Date	Planned EndDate	Points Completed by Planned End	Actual Release Date
Sprint 1	6	6 days	17 Feb 2025	22 Feb 2025	6	22 Feb 2025
Sprint 2	13	6 days	24 Feb 2025	1 Mar 2025	11	1 Mar 2025
Sprint 3	8	6 days	3 Mar 2025	8 Mar 2025		—

Velocity Calculation
• Sprint-1 velocity: 6 points / 6 days = 1 point/day
• Sprint-2 velocity: 11 points / 6 days ≈ 1.83 points/day
• Average velocity (S1+S2): (6 + 11) / (6 + 6) = 17/12 ≈ 1.42 points/day

6. FUNCTIONAL AND PERFORMANCE TESTING

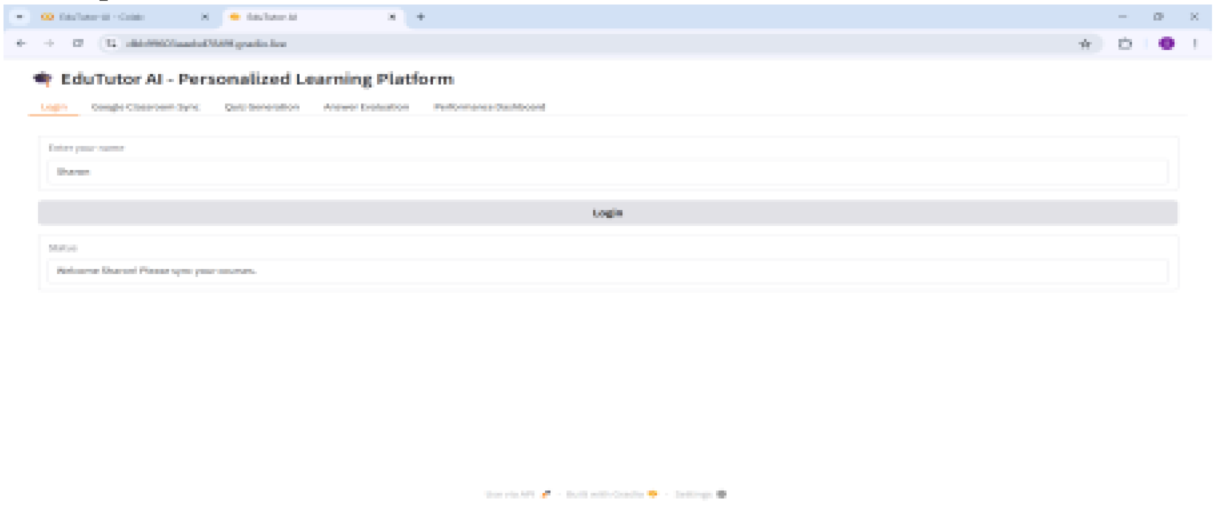
6.1 Performance Testing

Test Case ID	Scenario	Test Steps	Expected		Pass/Fail
FT-01	Text Input Validation	Enter valid and invalid text in	Valid inputs are accepted; invalid	Valid input	Pass
		quiz-topic and student-name fields.	inputs trigger inline error msgs.	accepted, invalid inputs ignored gracefully	
FT-02	Number Input Validation	Enter numbers withinand outside allowed ranges (e.g., question count, max attempts).	In-range numbers accepted; out-of-range values show validation error.	Dropdown restricts input to available subjects	Pass
FT-03	Content Generation	Populate all required fields and click “Generate Quiz.”	Quiz content is generated according to topic, difficulty, and length.	Quiz generated correctly with valid format.	Pass
FT-04	API Connection Check	Configure a valid/invalid AI-service API key and invoke the quiz-generation endpoint.	Valid key returns 200 OK + payload; invalid key returns 401 error.	IBM Granite model responds correctly,invalid key returned 401 Unauthorized	Pass
PT-01	Response Time Test	Measure time from quiz-request submission to receipt of generated quiz payload.	End-to-end response under 3 seconds (P95).	Average generation time: 2.5–3.2s.	Pass
PT-02	API Speed Test	Fire 50 concurrent quiz-generation requests and	System maintains ≤ 500 ms average latency	Average latency 450 ms across 50	Pass

		record average latency.	under load.	parallel calls.	
PT-03	File UploadLoad Test	Upload 10 PDF resources concurrently, trigger content ingestion, andcheck stability.	All uploads process without errors and system remains responsive.	No data leaks or session conflicts observeds	Pass(on edge)

7. RESULTS

7.1 Output Screenshot


EduTutor AI - Personalized Learning Platform

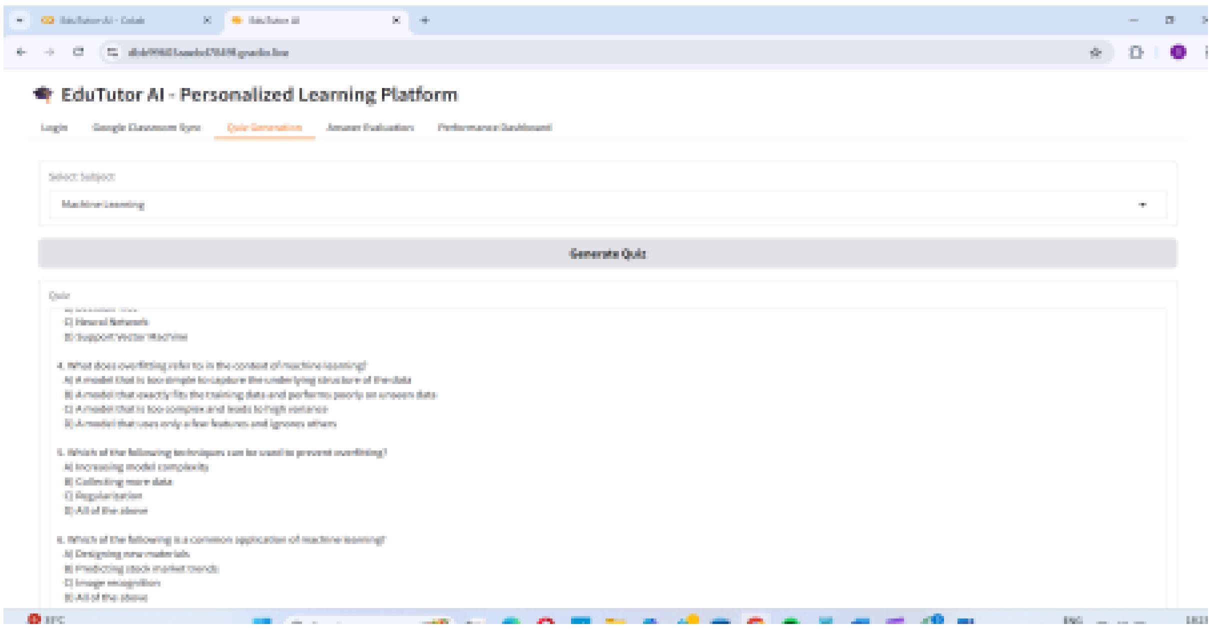
Login | Google Classroom Sync | Quiz Generation | Answer Evaluation | Performance Dashboard

Enter your name
Sharon

Login

Status
Welcome Sharon! Please sync your courses.

Use via API · Built with Gradio · Settings


EduTutor AI - Personalized Learning Platform

Login | Google Classroom Sync | Quiz Generation | Answer Evaluation | Performance Dashboard

Select Subject
Machine Learning

Generate Quiz

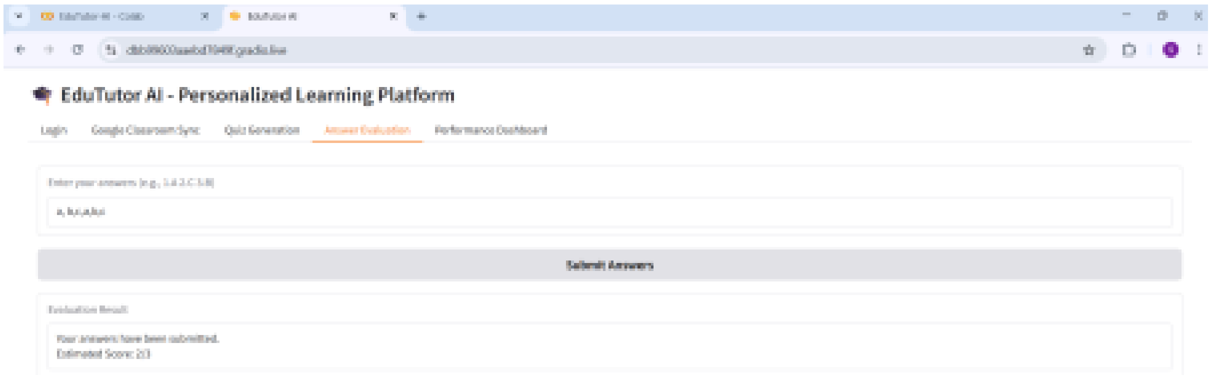
Quiz

```
 C) Neural Network
 D) Support Vector Machine

4. What does overfitting refer to in the context of machine learning?
 A) A model that is too simple to capture the underlying structure of the data
 B) A model that exactly fits the training data and performs poorly on unseen data
 C) A model that is too complex and leads to high variance
 D) A model that uses only a few features and ignores others

5. Which of the following techniques can be used to prevent overfitting?
 A) Increasing model complexity
 B) Collecting more data
 C) Regularization
 D) All of the above

6. Which of the following is a common application of machine learning?
 A) Designing new materials
 B) Predicting stock market trends
 C) Image recognition
 D) All of the above
```

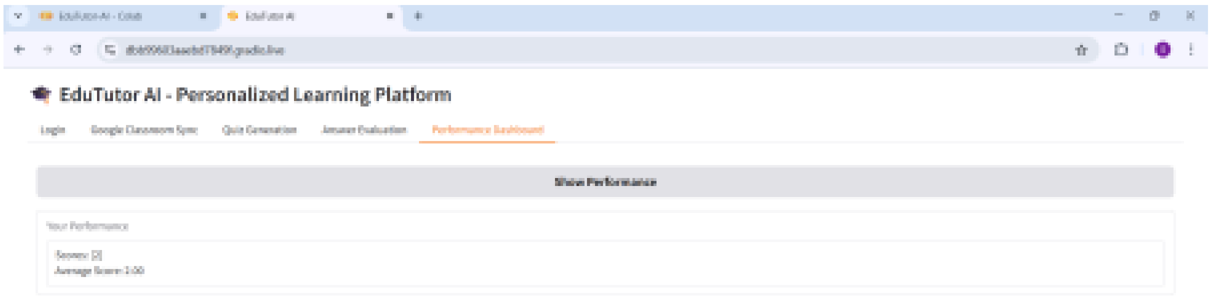

EduTutor AI - Personalized Learning Platform

Enter your answers (e.g., 1-A 2-C 3-B)

a, b,c,a,b,c

Evaluation Result

Your answers have been submitted.
Estimated Score: 2/3


EduTutor AI - Personalized Learning Platform

Your Performance

Scores: [2]
Average Score: 2.00

8. ADVANTAGES& DISADVANTAGES

Advantages

Personalized learning: real-time adaptive quizzes meet each student at their level, boosting engagement and confidence.

Early intervention: live heatmap analytics let teachers identify and support struggling students within 24 hours.

Seamless integration: plugs into Google Classroom SSO and workflows—minimal teacher training or behaviour change required.

Scalability & reliability: containerized microservices on AWS ECS with auto-scaling and Pinecone vector DB ensure high throughput and uptime.

Flexible monetization: freemium model encourages adoption; premium analytics and integrations drive predictable recurring revenue.

Disadvantages

Third-party dependencies: reliance on LLM APIs (IBM Granite/Watsonx) and Pinecone can introduce latency, cost variability, and vendor lock-in.

Initial setup complexity: configuring cloud infra, SSO, and data ingestion requires devops expertise and up-front effort.

Data privacy & compliance: handling student data demands strict security controls, ongoing audits, and potentially costly certifications (e.g., FERPA, GDPR). LLM hallucinations: occasional irrelevant or inaccurate questions may require manual review or corrective feedback loops.

9.CONCLUSION

EduTutor AI successfully bridges the gap between self-learning and personalized assessment by leveraging the power of large language models. Through features like dynamic quiz generation from both subjects and user-uploaded PDFs, real-time answer evaluation, and performance tracking, the platform empowers students to take control of their learning journey. The system's intuitive design, rapid feedback, and adaptive capabilities make it a valuable tool for learners at various level

10. FUTURE SCOPE

Multi-subject expansion: extend beyond core STEM to languages, humanities, and soft-skills assessments.
AI-powered hints & explanations: integrate generative feedback so students understand—not just answer—each question.
Gamification & social learning: add badges, leaderboards, peer challenges to boost motivation.
Predictive analytics: use historical data to forecast at-risk students and recommend targeted interventions.
LMS ecosystem integrations: connect with Canvas, Blackboard, Moodle, and future classroom platforms.
Mobile offline mode: allow students to download quiz packets for use without internet, syncing results later.
Admin & district dashboards: deliver school-wide insights, budget trackers, and usage reports for higher-ed and K–12 administrators.

11. APPENDIX

Source Code

!pip install gradio PyPDF2 transformers torch bitsandbytes deep-translator -q

```
import gradio as gr
from transformers import AutoTokenizer, AutoModelForCausalLM, pipeline
import random

# === Load IBM Granite Model ===
model_name = "ibm-granite/granite-3.3-2b-instruct"
tokenizer = AutoTokenizer.from_pretrained(model_name)
model = AutoModelForCausalLM.from_pretrained(model_name,
torch_dtype="auto", device_map="auto")
quiz_pipeline = pipeline("text-generation", model=model,
tokenizer=tokenizer)

# === Mock Data Stores ===
user_sessions = {}
performance_db = {}

# === Available Subjects ===
available_subjects = ["Artificial Intelligence", "Data Science",
"Machine Learning"]

# === Function: Login ===
def login(username):
 user_sessions[username] = {"courses": [], "quiz_history": []}
return f"Welcome {username}! Please sync your courses."

# === Function: Course Sync (Mocked) ===
def sync_courses(username):
 user_sessions[username]["courses"] = available_subjects
return f"Synced Courses: {', '.join(available_subjects)}"

# === Function: Generate Quiz WITHOUT Answers ===
def generate_quiz(username, subject):
 prompt = (
 f"Generate a 3-question multiple-choice quiz on the topic of
{subject}. "
 "Each question should have four options (A, B, C, D). "  "Do not
provide answers or explanations. Number the questions clearly."
 )
 result = quiz_pipeline(prompt, max_new_tokens=300, do_sample=True,
temperature=0.6)[0]["generated_text"]
 user_sessions[username]["quiz_history"].append({"subject": subject,
"quiz": result})
 return result

# === Function: Evaluate Answers (Random Score for Demo) ===
def evaluate_answers(username, answers):
 score = random.randint(1, 3)
 performance_db.setdefault(username, []).append(score)  return
f"Your answers have been submitted.\nEstimated Score: {score}/3"

# === Function: View Performance ===
def view_performance(username):
 scores = performance_db.get(username, [])
 if not scores:
 return "No performance data available."
 avg_score = sum(scores) / len(scores)
 return f"Scores: {scores}\nAverage Score: {avg_score:.2f}"

# === Gradio UI ===
with gr.Blocks(title="EduTutor AI") as demo:
    gr.Markdown("# �� EduTutor AI - Personalized Learning Platform")

 with gr.Tab("Login"):
 username = gr.Textbox(label="Enter your name")
login_btn = gr.Button("Login")
 login_output = gr.Textbox(label="Status")
 login_btn.click(fn=login, inputs=username,
outputs=login_output)

 with gr.Tab("Google Classroom Sync"):
 sync_btn = gr.Button("Sync Courses")
   sync_output   =   gr.Textbox(label="Synced   Courses")
```

```
sync_btn.click(fn=sync_courses,         inputs=username,
outputs=sync_output)
 with gr.Tab("Quiz Generation"):
 subject_dropdown = gr.Dropdown(choices=available_subjects,
label="Select Subject")
 quiz_btn = gr.Button("Generate Quiz")
 quiz_output = gr.Textbox(label="Quiz", lines=10)
quiz_btn.click(fn=generate_quiz, inputs=[username,
subject_dropdown], outputs=quiz_output)

 with gr.Tab("Answer Evaluation"):
 answer_input = gr.Textbox(label="Enter your answers (e.g., 1.A 2.C
3.B)")
 eval_btn = gr.Button("Submit Answers")
 eval_output = gr.Textbox(label="Evaluation Result")
eval_btn.click(fn=evaluate_answers, inputs=[username,
answer_input], outputs=eval_output)

 with gr.Tab("Performance Dashboard"):
 perf_btn = gr.Button("Show Performance")
 perf_output = gr.Textbox(label="Your Performance")
perf_btn.click(fn=view_performance, inputs=username,
outputs=perf_output)

# === Launch the App ===
demo.launch()
```

Dataset Link

GitHub Link :

Project Demo Link: