

AI BASED PERSONALIZED LEARNING APP

Team Name: Quantum learners

College Name:

Karpaga Vinayaga College of Engineering and Technology

Team Members:

Mirudhula K
Pavithra devi S
Pirithika P
Preethika V
Pranavi G

PROBLEM STATEMENT

Traditional e-learning platforms often follow a one-size-fits-all approach, providing the same lessons and pace for every learner regardless of their individual learning styles. This lack of personalization leads to disengagement, reduced motivation, and poor retention. Learners struggle to stay consistent and often feel overwhelmed or left behind. There is a growing need for an **AI-based adaptive learning app** that understands each user's learning behavior, recommends suitable lessons and quizzes, visualizes progress through gamified elements, and provides a calm, focused environment. The solution should also ensure accessibility and inclusivity, enabling all learners to thrive at their own pace.

USER INTERVIEW QUESTIONS

1. What challenges do you face while learning from traditional e-learning apps?
2. Do you feel the same lessons and pace suit every learner?
3. How would you like an app to adapt to your learning speed and style?
4. Would AI-based lesson recommendations help you learn better?
5. How do you prefer to receive feedback – instant tips or progress reports?
6. What motivates you more – grades, badges, or personal goals?
7. Would gamified progress tracking make you more consistent?
8. Do you prefer calm, distraction-free learning environments?
9. How useful would it be if AI reminded you to revise weak topics?
10. Would you trust an AI system to guide your personalized learning journey?

GOOGLE FORM URL

GOOGLE FORM LINK :

[Google Form](#)

EXCEL SHEET:

[Excel Respond](#)

USER PERSONA



AGE

25

JOB TITLE

Software Engineer

STATUS

Single

LOCATION

Bengaluru, IN

ABOUT

Arjun is a 25-year-old working professional who is passionate about upgrading his skills through online courses. He often struggles to manage time between work and learning. He wants a smarter app that adapts to his learning speed, gives quick feedback, and helps him stay consistent without feeling overwhelmed.

GOALS

Learn efficiently alongside his full-time job
Get personalized course suggestions
Stay motivated through gamified progress

KNOWN HABITS

Studies at night or during breaks
Watches short tutorial videos regularly
Uses reminders and productivity apps daily

Arjun

PREFERENCES

Short, adaptive lessons that fit his schedule
Progress tracking and achievements for motivation
Personalized content recommendations
Mobile-first, distraction-free interface
AI reminders for weak topic revision

PAIN POINTS

Finds most e-learning apps repetitive and time-consuming
No personalized pacing or difficulty adjustment
Hard to stay consistent due to work distractions

USER PERSONA



Motivated, curious, and prefers personalized learning experiences powered by technology.

AGE 21
JOB TITLE Student
STATUS Single
LOCATION Chennai, IN

PASSIONATE **EMPATHETIC**
CURIOUS **ADVENTUROUS**

Ananya

ABOUT

Ananya is a 20-year-old college student passionate about self-paced learning and skill development. She often struggles to stay consistent with static e-learning platforms that don't match her pace. She loves exploring AI tools and seeks a smarter, adaptive way to learn effectively while maintaining focus and motivation.

GOALS

Learn at her own pace with personalized lessons
Track her progress and stay motivated
Improve focus and consistency in daily learning

PAIN POINTS

Traditional apps feel monotonous and non-adaptive
Hard to stay focused due to distractions and overload
No clear feedback on weak topics or progress areas

NEEDS

Calm, distraction-free study mode
Short quizzes & instant feedback
Progress tracking with rewards
Learning through adaptive AI suggestions

PERSONALITY

Introvert	Extrovert
Analytical	Creative
Busy	Time rich
Messy	Organized
Independent	Team player

USER INSIGHTS

Learning Challenges:

Most students struggle with maintaining focus during long lessons, difficulty understanding complex topics, and lack of personalized learning speed. A common issue is one-size-fits-all content that doesn't adapt to individual learners.

Effects on Learning:

Learners experience reduced motivation, slower concept grasping, and poor retention when lessons are not adapted to their pace or learning style.

Engagement Barriers:

Key barriers include monotonous lessons, lack of interactivity, and absence of timely feedback or motivation to continue learning.

Comfort with Technology:

While most students are comfortable using digital apps, some find current e-learning interfaces confusing or overwhelming, especially when progress tracking is unclear.

Personalization Concerns:

Learners worry about whether the app can truly adapt to their unique needs, such as preferred difficulty levels, subjects of interest, and learning time.

Desired Features:

Preferred features include AI-based lesson recommendations, adaptive difficulty, gamified progress tracking, instant feedback, personalized goals, and voice/text-based tutoring assistance.

Response Expectations:

Students expect immediate insights on mistakes (within seconds) and weekly summaries of their progress and skill improvement.

Situations to Use:

Users prefer using the app for exam preparation, revision sessions, concept clarification, or when needing self-paced learning outside classrooms.

Barriers to Use:

Barriers include fear of data misuse, low trust in AI recommendations, internet dependency, and lack of offline accessibility.

Improvements Expected:

Students believe the app can boost motivation, improve academic outcomes, reduce learning anxiety, and create a more inclusive, personalized educational environment.

USER FEEDBACK

“Make the interface intuitive – learning paths should be easy to access and navigate.”

“Give us progress updates so we can track our learning goals and improvements.”

“Allow personalization – recommend courses and exercises based on our skill level and interests.”

“Include instant feedback on quizzes and assignments to help us learn from mistakes.”

“Provide reminders or study schedules to keep us consistent and motivated.”

“Enable offline access for lessons or notes when internet connectivity is poor.”

“Show a dashboard with achievements, streaks, and performance history.”

“We want the AI to adapt dynamically – challenge us when we improve, and guide us when we struggle.”

“Add community or discussion features so we can learn collaboratively.”

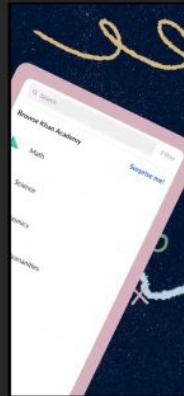
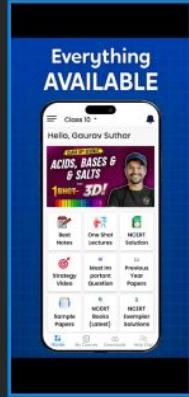
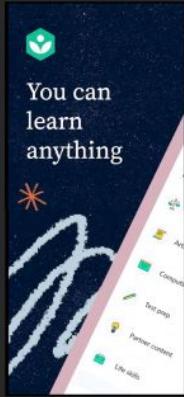
USER FLOW DIAGRAM



COMPETITOR ANALYSIS

Competitor	Overview	Key Features	Pros (Strengths)	Cons (Weaknesses)	Opportunities / Gaps
Khan Academy	Free global learning app for students of all ages.	Video lessons, quizzes, progress tracking.	Free, easy to use, quality content.	No live classes, limited personalization.	Add AI adaptivity and gamified learning.
Toppr	Indian app for school & exam prep.	Adaptive learning, mock tests, live doubts.	Personalized study paths, rich content.	Paid plans, cluttered UI.	Improve accessibility & focus mode.
Entri App	Regional learning & job-prep platform.	Multilingual courses, AI analytics, quizzes.	Vernacular focus, skill-based content.	Limited K-12 focus, less gamification.	Expand adaptive learning for students.

COMPETITOR ANALYSIS - COMPARISON



GOOGLE STITCH

Welcome and Onboard...

Adapts to Your Pace

Our AI technology customizes learning content to fit your unique style and speed, ensuring you always learn effectively.

Continue Skip



Your Learning Path

- Variables and Data Types Completed
- Control Flow Completed
- Introduction to Python Functions 0% Progress
- Data Structures Upcoming

Explore New Topics

- Data Structures Based on your progress
- OOP Recommended for you

Your Strengths

- Variables
- Loops
- Conditionals

Areas to Improve

- Recursion
- API Integrations

Home Courses Profile Settings



Learning Dashboard

Hello, Alex!

75%

Python for Data Science

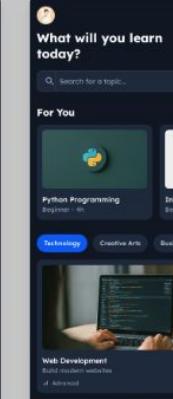
12/16 Lessons Done

Up Next: Recommended for you

Introduction to Python Functions

Learn how to define and call functions to make your code more modular and reusable.

Short Lesson



Topic Selection

What will you learn today?

For You

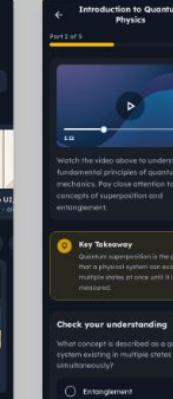
- Python Programming Beginner - 4h
- Intro to UI Beginner - 1h
- Technology
- Creative Arts
- Business

Web Development Intermediate - 10h

Mobile App Design Intermediate - 12 hours

Machine Learning Expert - 10 hours

Cloud Computing Intermediate - 8 hours



Content View

Introduction to Quantum Physics

Part 2 of 5

60%

Watch the video above to understand the fundamental principles of quantum mechanics. Pay close attention to the concepts of superposition and entanglement.

Key Takeaway

Quantum superposition is the principle that a physical system can exist in multiple states simultaneously.

Entanglement

Superposition

Quantum Tunneling

Submit

Check your understanding

What concept is described as a quantum system existing in multiple states simultaneously?

Time to Reflect

How could you apply the concept of "observer effect" in your daily problem-solving?

Type your thoughts here...

Previous Next



Progress & Analytics

My Progress

Last 7 Days This Month All Time

85% Mastery

Overall Mastery Score

You're doing great! Keep up the amazing work and continue to challenge yourself.

Strength by Topic

82% Last 7 Days +3%

Algebra Geometry Data Stats

Quiz Scores Over Time

91% This Month 8/10

M1 M2 M3 M4

AI-Powered Insights

- Revise mastered Algebra basics. Try solving quadratic equations next.
- Your scores in geometry are strong. Consider challenging yourself to reinforce your knowledge.
- You sleep best in the morning. Keep up the consistent study schedule!

Home Learn Progress Profile



Settings

Alex Doe alex.doe@gmail.com

Learning Preferences

- Learning Goal Career Growth
- Topics of Interest Machine Learning, UI/UX
- Skill Level Intermediate

App Settings

- Enable Notifications On
- Sync On

Support & Legal

- Help & Support
- Privacy Policy
- Terms of Service

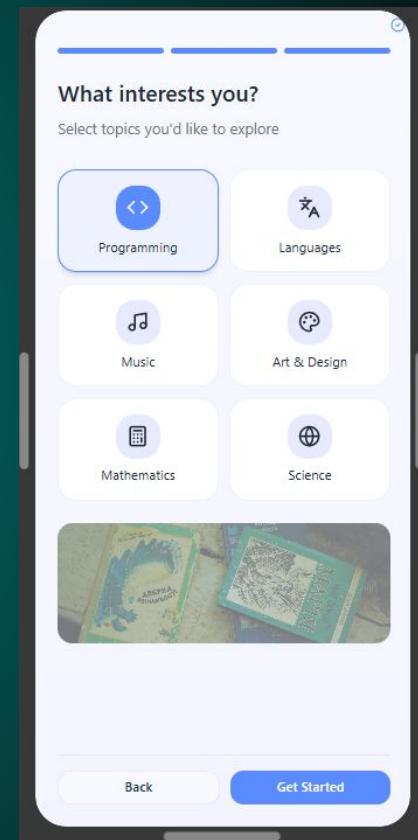
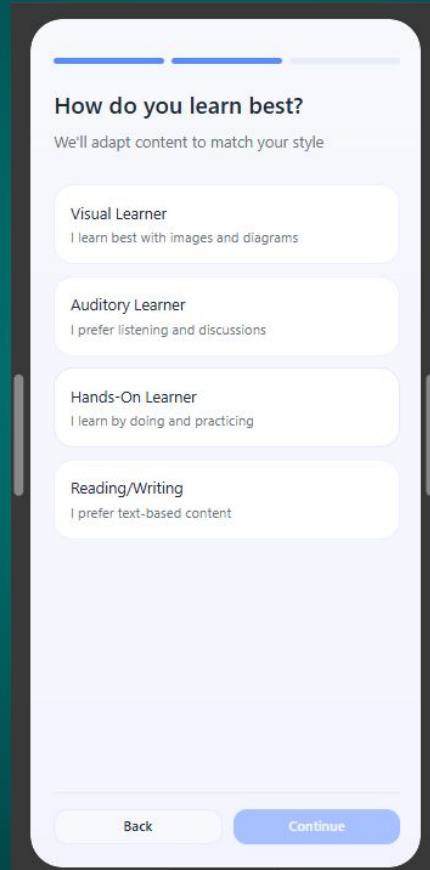
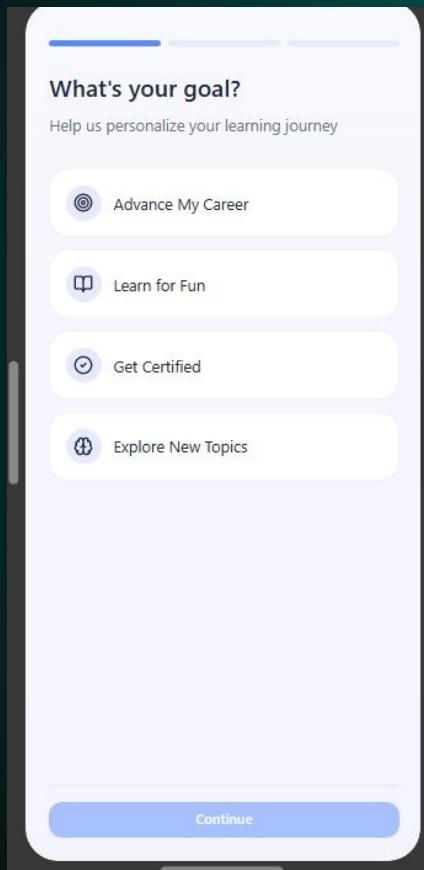
Account Actions

- Change Password
- Log Out
- Delete Account

Save Changes



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COMPETITOR ANALYSIS-COMPARISON URL

COMPARISON URL

GOOGLE STITCH PROTOTYPE URL

LINK FOR GOOGLE STITCH

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