Baderia Global Institute of Engineering and Management, Jabalpur, Madhya Pradesh 482002



## Brahmax 1.0





Problem Statement:
Al-Powered Language
Tutor – Build an Al tutor
that helps students learn
new languages through
real-time translation,
quizzes, and
pronunciation feedback
using Azure Translator
API.



Team Name:
TechMatrix Solvers



Team Leader Name:
Abhay Gupta



**Institute Name:** 

Shri Ram Institute of Technology Jabalpur



Theme Name: Al MultiLingo



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www.codecrax.com



# Team TechMatrix Solvers



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**ABHAY GUPTA** 



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## **Problem Statement**



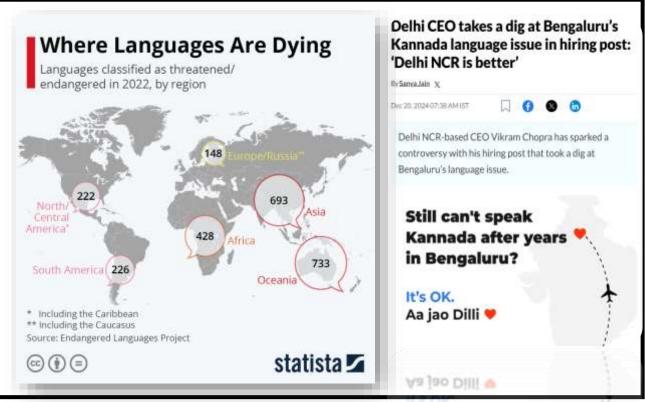
#### **TechMatrix Solvers**

#### Problem Statement EdTech

E1. Al tutors and content recommendation systems: Intelligent tools that provide personalized guidance and resources, enhancing the learning process.

#### **SOLUTION**

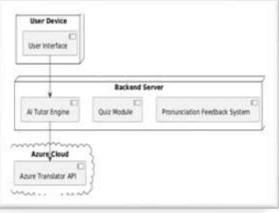
Al-Powered Language Tutor: Develop an Al tutor focused on language acquisition. Leveraging the Azure Translator API, this tool will assist students by offering real-time translation, creating interactive quizzes to test comprehension, and providing instant pronunciation feedback.

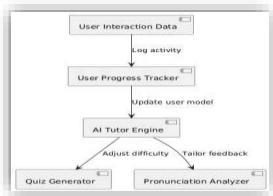


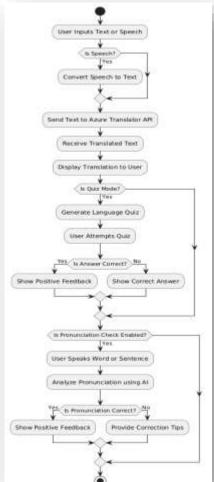
## **Technical Solution**

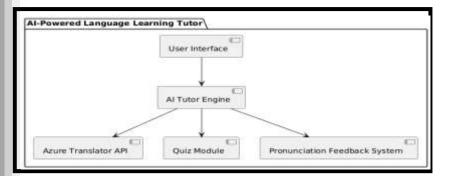


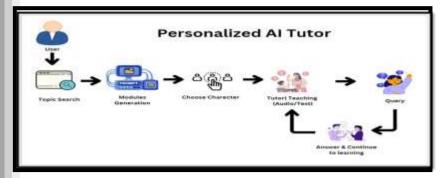










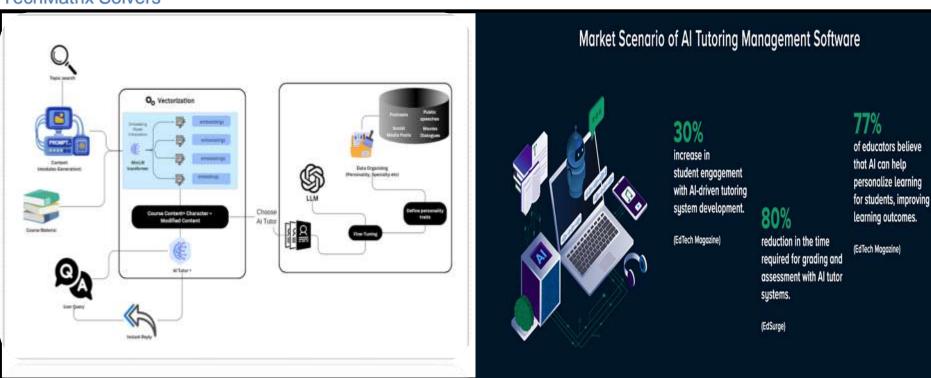




## **Use Cases And Market Reach**



#### **TechMatrix Solvers**







## **Future Integration**



#### **TechMatrix Solvers**

Feature (#)	Core User Benefit	Example Technology/Platform	0.	Alcion	
1. Voice Assistant Support	Learn conveniently, hands-free	Alexa, Google Assistant	6	100	oursera
2. AR/VR Immersion	Practice in realistic, immersive scenarios	Apple Vision Pro, VR Headsets	Google Assistant		
3. Multimodal Learning	Understand concepts better through varied inputs	Text, Speech, Image/Video Analysis	<b>2</b> y		odle
4. Adaptive Al	Receive a truly personalized learning experience	DEEPSEEK AI (or similar)	A Atomic	_	00016
5. Blockchain Certification	Get secure, verifiable proof of skills	Solana, Ethereum		deeps	
6. Gamification	Stay motivated and engaged through	Leaderboards, Badges, Rewards	Sentiment Analysis     Real-Time Group	Experience less frustration, smoother learning  Learn socially and collaboratively	Emotion AI, NLP  Al-Facilitated Chat/Video Rooms
	fun challenges		Learning		
7. Integration with LMS	Track progress within existing	Moodle, Coursera	10. IoT Smart Devices	Improve specific skills like pronunciation	Smartwatches, Wearables



Target language: Japanese

Prior knowledge: I've done 100 lessons on duolingo, so I know words like hello, goodbye, some sentences like where is, my name is, some colors, how

TechMatrix Solvers

to say where and there

Target knowledge: Enough to be able to enjoy a three week vacation';



This is Embedded Video in PPTX Turn on Slideshow Click on Above video

### Why Azure AI Speech?

Out of the text-to-speech solutions I tried, this was the only one I was able to get to produce good bilingual results within a single paragraph, by specifying language with the Speech Synthesis Markup Language. As a bonus, generating all the lessons during testing and finalization (several hundred lessons, 4-5 hours of conversation) was well within the Azure free tier

## Watch The Video

Credits Abhay Gupta TechMatrix Solvers Team Lead