



INNOVATION

# SpeakBuddy: The AI-Powered English Speaking Practice Bot

# Introduction

1

## Bridging the Gap

SpeakBuddy addresses the challenges faced by English language learners, creating a more accessible and effective learning experience.

2

## Personalized Learning

This AI-powered bot provides customized guidance and support tailored to individual needs and learning styles.

3

## Empowering Learners

SpeakBuddy empowers learners to build confidence and overcome language barriers by providing an engaging and interactive platform.



# Problem

## Lack of Practice

Finding consistent speaking partners for practice can be a major hurdle for learners, especially for those who live in areas where English is not widely spoken.

## Pronunciation Difficulties

Mastering pronunciation is a significant challenge without proper guidance and feedback, leading to miscommunication and decreased confidence.

## Limited Vocabulary

Expanding vocabulary can be time-consuming and frustrating without a clear understanding of synonyms and translations in the learner's native language.



# Solution

## AI-Driven Practice

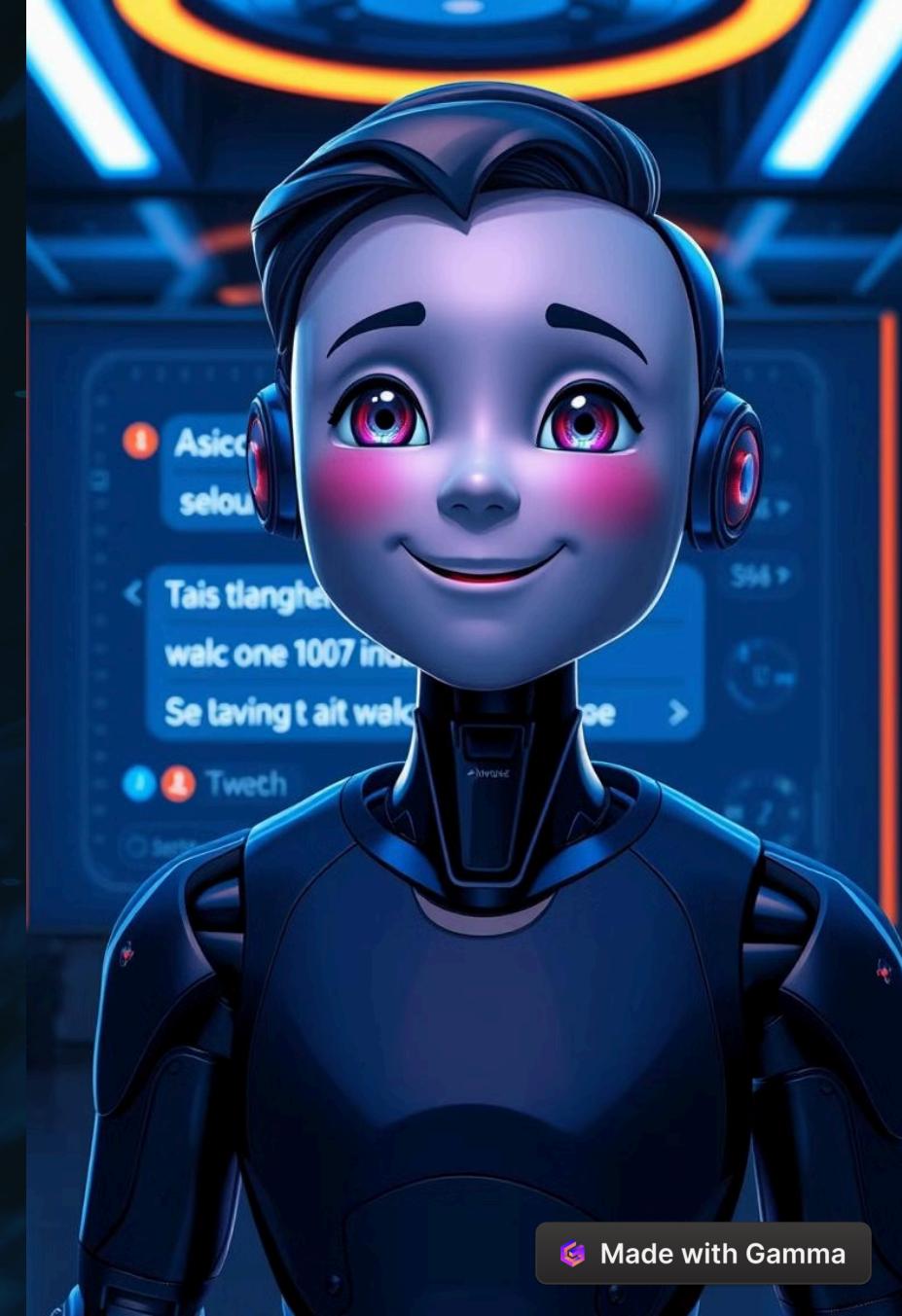
SpeakBuddy provides a unique opportunity for learners to engage in voice-based conversations with an AI bot that offers real-time feedback and support.

## Personalized Feedback

The bot analyzes speech patterns and pronunciation, providing specific recommendations and suggestions to help learners improve their speaking skills.

## Comprehensive Vocabulary Development

SpeakBuddy goes beyond basic word definitions, providing synonyms and meanings in Urdu, empowering learners to build a strong vocabulary.





# Key Features

1

## Conversation Practice

Users engage in voice-based conversations with the AI bot, receiving real-time feedback on fluency, grammar, and pronunciation.

2

## Pronunciation Guidance

SpeakBuddy's pronunciation feature allows users to input any word or sentence, providing a clear and accurate pronunciation guide.

3

## Vocabulary Expansion

The bot provides synonyms and meanings in Urdu for any English word, empowering learners to expand their vocabulary effectively.

# Technologies

Gradio

Models

API\_Key

Hugging Face

Python

User Interface

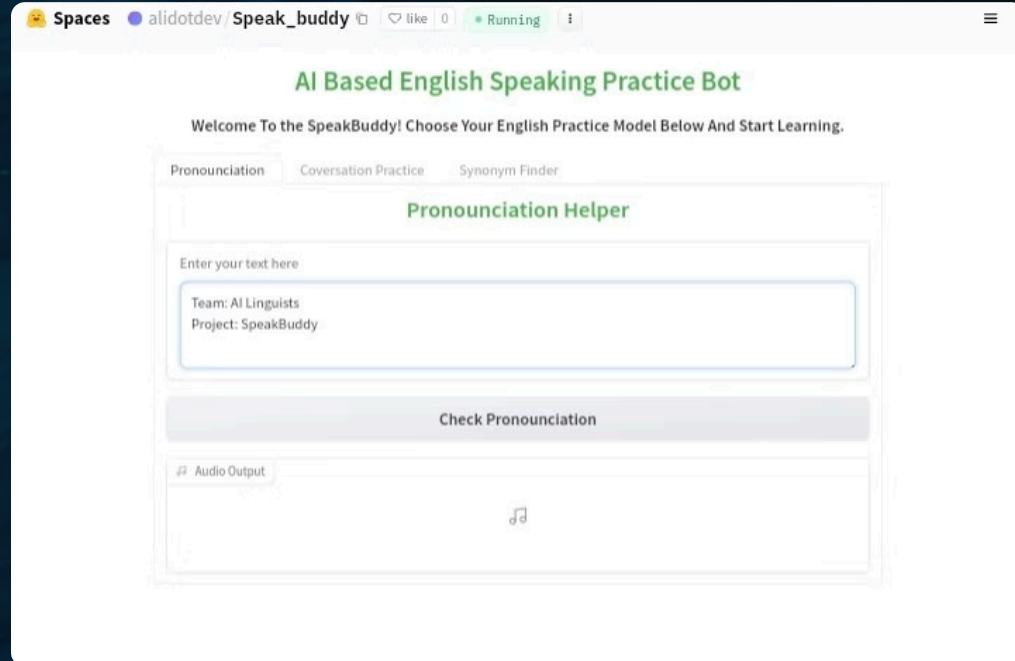
gTTS, openai-whisper, & Deep Translator.

Groq

Deployment

Core Language

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# Project Demo

Live demonstration link of: [SpeakBuddy](#)

# Future Work

## RAG-Based Vocabulary

Integrating reputable dictionaries like Oxford and Cambridge into a Retrieval-Augmented Generation (RAG) system will enhance vocabulary definitions, providing more accurate and comprehensive meanings.

## Interactive Learning Modules

Introducing interactive modules such as quizzes, challenges, and interactive scenarios will make learning more engaging and effective, promoting active participation.

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2

3

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## Multilingual Support

Expanding vocabulary features to support meanings in multiple languages beyond Urdu will make SpeakBuddy more accessible to a diverse user base.

## Mobile Integration

Developing a mobile app version will enhance accessibility, allowing learners to access SpeakBuddy anytime and anywhere, fostering continuous learning.

# Meet the Team: The AI Linguists



Reema Memon  
Telecom Engineer



Muneer Iqbal  
GenAI Student



Shaista Zulfiqar  
AI Researcher



M. Ali Murtaza  
CS Student



Muniba Ashfaq  
Lecturer



Shahzoor Khan  
Fullstack Developer

# Thank you

Thank you for your time and consideration. We appreciate the opportunity to share our project, SpeakBuddy, with you.

# Thank You