Language World Virtual Learning Platform

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Project Summary:

Our project aims to create a virtual world for language studying, where users can immerse themselves in environments tailored to different languages.
The world will consist of mini-worlds, each representing a specific language, and within these, there will be three rooms corresponding to different levels of proficiency.
Users can interact as either students or tutors, engaging in language learning activities such as conversation practice, vocabulary drills, and grammar exercises.

Problem and Benefit:

The problem we are addressing is the difficulty many face in finding engaging and effective methods for language learning.
Our virtual world offers an immersive and interactive solution, providing a platform for users to practice speaking, listening, reading, and writing in their target language.
The added benefit lies in the integration of AI technologies for instant feedback, personalized learning paths, and real-time interaction with tutors.
What makes our project unique is its combination of gamification elements, immersive environments, and advanced language learning tools, making language learning both fun and effective.

Existing Approaches:

While there are language learning apps and platforms available like Duolingo, few offer the level of immersion and interactivity that our virtual world provides. Existing games and apps may focus on specific aspects of language learning, such as vocabulary acquisition or grammar exercises, but they often lack the comprehensive and immersive experience we aim to deliver.
Our app will give the user the chance to speak the language in an environment that suits the native of it.

Expected Users and Flow:

Users:

- Students: Individuals seeking to learn or improve their proficiency in a foreign language.
- Tutors: Language instructors or fluent speakers who can provide guidance and support to students.

Flow:

- Upon entering the virtual world, users will select their desired language and proficiency level.
- They will then be transported to the corresponding mini-world and assigned to a room based on their proficiency level.
- Within each room, users can engage in various language learning activities, - Tutors will have access to private rooms for one-on-one sessions with students, where they can provide personalized feedback and guidance.

Main Features:

- Room design reflecting the native language origin for immersive learning.
- Voice recognition using AI for instant feedback on pronunciation and speech.
- Different levels of vocabulary and grammar complexity, with the ability for users to progress through levels.
- Private rooms for teacher-tutor conversations and practice sessions.
- Ability for teachers to review students' writing and speaking exercises and assign scores, incentivizing active participation and improvement.

External Dependencies:

- Unity for virtual world development.
- C# for programming within Unity.
- Python for integrating AI technologies such as Google speech-to-text and OpenAI chat GPT.
- Google speech-to-text for voice recognition.
- OpenAI chat GPT for conversational AI functionalities.