

Immersive Story Reading Experience with Ambient Sound Integration

Project Overview:

Develop an immersive story reading application that enhances the narration experience by integrating ambient sound effects based on the scenarios described in the story. When the story encounters specific scenarios such as rain, thunder, forest, ocean, etc., the application will play corresponding background sounds to create a more engaging and immersive experience for the listener.

Key Features:

Text-to-Speech Narration:

- Utilize a text-to-speech (TTS) engine to narrate the story.
- Option to choose from various voice profiles.

Ambient Sound Effects:

- Detect keywords or phrases in the story that indicate specific scenarios (e.g., "rain," "thunder," "forest," "ocean").
- Play appropriate ambient sounds (e.g., rain sounds, thunder claps, forest ambiance, ocean waves) in the background.

Dynamic Sound Management:

- Adjust the volume of the ambient sounds to ensure they complement the narration without overpowering it.
- Fade in and out effects for smooth transitions between different sounds.

User Customization:

- Allow users to customize the types of sounds they want to hear.
- Provide options to adjust the volume and intensity of the ambient sounds.

Technical Stack:

Frontend: Vanilla JavaScript, HTML, and CSS for the web interface.

Backend: Django with Django REST framework for API and server management.

Text-to-Speech: Google Text-to-Speech API or Amazon Polly.

Sound Management: HTML5 Audio API for handling audio playback and effects.

Natural Language Processing (NLP): Python NLP libraries (e.g., spaCy, NLTK) to detect keywords and phrases indicating scenarios.

Database: PostgreSQL for storing user preferences, stories, and sound mappings.