AI DUNGEON STORY GENERATOR

CREATE INTERACTIVE FANTASY STORIES USING GENERATIVE AI

INTRODUCTION

Artificial intelligence has revolutionized many creative domains, including storytelling. This project, titled "AI Dungeon Story Generator", demonstrates the application of natural language processing and generative models to produce interactive narratives. By leveraging a pre-trained language model (GPT-2), the system generates text-based stories based on user-defined genres and prompts, which are then converted into audio and video outputs. The goal is to create a seamless storytelling experience that combines textual, auditory, and visual elements.

OBJECTIVE

To develop a system that generates interactive fantasy stories using generative AI models and converts them into audio and video formats to enhance user engagement and experience.

ABSTRACT

The AI Dungeon Story Generator project focuses on the creative use of natural language generation through the GPT-2 model to generate fantasy-themed stories based on user input. The system enables users to input a story genre and a custom opening sentence, after which the model produces a continuation. The resulting story is then converted into speech using Google Text-to-Speech (gTTS), and a video is created by combining this audio with a user-uploaded image using MoviePy. The outcome is a fully generated story in audio-visual form. The project serves as an example of how language models can be adapted for artistic and educational applications.

TOOLS USED

- Python (Programming Language)
- Transformers Library (Hugging Face)
- GPT-2 (Pre-trained Language Model)
- gTTS (Google Text-to-Speech for audio generation)
- MoviePy (Python module for video editing)
- Google Colab (Online IDE and execution environment)

METHODOLOGY

- User is prompted to select a genre (e.g., fantasy, mystery, sci-fi) and enter an opening sentence.
- The input is processed by GPT-2 using Hugging Face's transformers pipeline to generate a full-length story.
- The generated story is converted to speech using gTTS and saved as an MP3 file.
- The user uploads a background image that aligns with the story's theme.
- Using MoviePy, the image and audio are combined to produce a 30-second MP4 video.
- The output video is made available for playback and download.

OUTPUT

- Textual story generated based on custom genre and prompt.
- Audio file (MP3) of the generated story using TTS.
- Video file (MP4) combining story audio with background image.

CONCLUSION

The AI Dungeon Story Generator successfully demonstrates how generative AI models can be used in creative content generation. By combining GPT-2, gTTS, and MoviePy, the project enables users to create custom, AI-generated stories and experience them in audio-visual form. This project illustrates the potential of AI in education, entertainment, and digital media.