

Introduction (what you are trying to do)

Editing is tedious. It's lengthy, tiresome, and expensive. The old days of poring over hundreds of feet of film are long gone, yet the hassle and nuisances of video editing remain. In our current age, technology aids us in nearly any and every sector. The use of machine learning and AI is a powerful tool that can benefit the consumer in a plethora of ways. Video editing should be fast, efficient, and smart. We hope to incorporate these things with our project, EditAI.

Materials and Methods (How you are doing it, problems overcome, etc.)

We are using OpenCV, a framework designed for working with computer vision, machine learning, and image processing. We began with a C++ program that imports OpenCV packages, completed through Visual Studio. With this, we began researching ways to implement AI with this application to finetune the editing process and allow for smarter, better editing. We are using OpenAI's API, which allows us to generate parseable instructions for AI-generated patterns, themes, and video adjustments. We also make use of Python scripts to access this API and read user input for a specific style of video that is desired.

Results (Progress)

Currently, our software uses artificial intelligence to create a written plan for editing videos, based on what users want. We read this plan to find important words like 'blur' and 'transitions.' Then, we use these words to make changes to the video clips. Finally, we put all the clips together to make one complete video.

Objectives (goals)

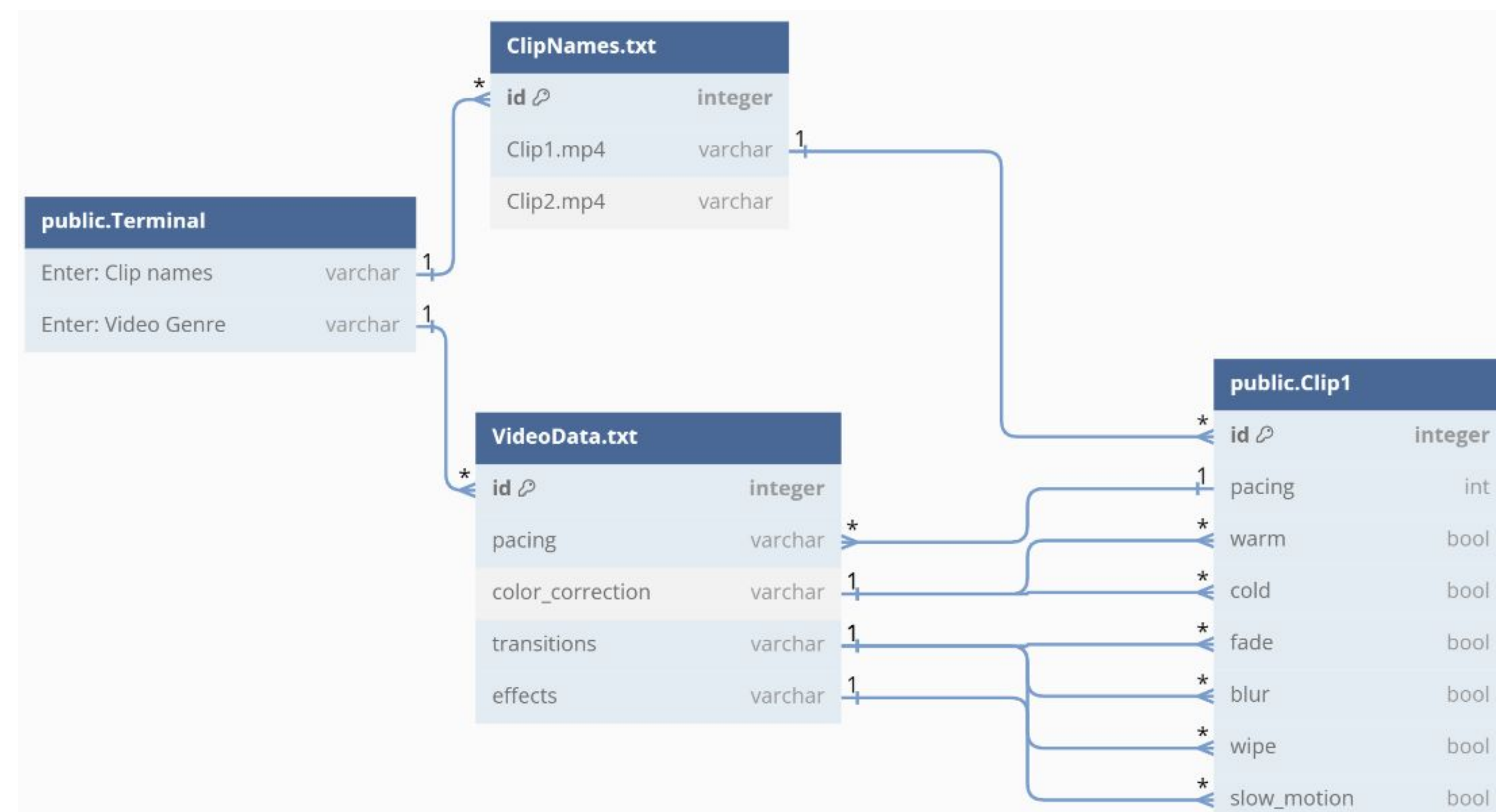
The purpose of EditAI is to transform the video editing industry by making it easier and more accessible for users. Our main goal is to use AI to ease the process of editing videos. It involves important segment recognition, automated video cutting, and customized editing based on user descriptions. Furthermore, by using machine learning and OpenAI to anticipate and apply the optimal post-processing effects, such as transitions, color correction, and speed changes. EditAI seeks to go beyond conventional video editing. EditAI will adjust to match the user's individual demands, whether it's an energetic sports highlight or an emotional wedding video, making video editing fun and easy to use.

Conclusions (What are you learning)

In summary, EditAI is a forward-looking project that combines AI, machine learning, and user-centric design to create an accessible and effortless video editing experience, with a strong emphasis on collaboration and community engagement. The project is a valuable opportunity for skill development and innovation in the field of video editing software.

References

<https://github.com/matttavaares9/VideoTrimmer>
https://www.youtube.com/watch?v=m9HBM1m_EMU
<https://www.youtube.com/watch?v=ZQclFCBeSgM&pp=ygUPaW5zdGFsbCBvcGVuIGN2>
<https://youtu.be/4qNwoAAfnk4?si=W3YwHfFn0StOXaUv>
<https://github.com/AIAdvantage/chatgpt-api-youtube>
<https://github.com/jaswanthDuddu/EditAI>



Video Data: User enters a genre/style of video and a text document containing its instructions is provided.

Enter a word: hockey highlights	Enter a word: school history project
Pacing: fast	-Pacing:Slow
Transitions: quick	-Transitions:Fade
Color correction: bright	-Color correction:None
Effects: slow motion	-Effects:Zoom
Stock images: No	-Stock images:Yes
Voice over: No	-AI voiceover:No

