AI Video Generator – Project Report 📝

Introduction

This project is an AI-powered tool that automatically creates a short video using trending news. It includes a background image, voice-over audio, scrolling headline, and an AI-generated image. The process is fully automated using APIs and Python libraries.

Steps Involved

Step 1: Fetch Trending News

I used the News API to get the latest trending news articles.
From each article, I extracted:
- The headline – used as the scrolling text at the bottom of the video.
- The content – used to generate the video script and AI image.

Step 2: Generate Script using OpenRouter API

I used the OpenRouter API to convert the news content into a short and engaging video script.
- The script is generated in a storytelling style using a free OpenRouter model.
- This script will be used for generating audio in the next step.

Step 3: Convert Script to Audio

I used a Text-to-Speech (TTS) tool to convert the generated script into a voice-over audio file.
The audio file is saved as: output.mp3

Step 4: Generate AI Image using ClipDrop API

I used the ClipDrop API to generate an AI image that visually represents the news content.
- I passed the news content as a prompt to generate a meaningful image.
- The image is saved automatically as: ai_image.jpg

Step 5: Create Video with All Elements

I created the final video using moviepy in Python.
It includes:
- A background image (background.jpg)
- A voice-over (output.mp3)
- A scrolling headline (from the news title)
- The AI-generated image (ai_image.jpg) placed in the center

To enable the text rendering and video export, I installed ImageMagick on my system and set its path in the code.

⬚ Final Output

The video is generated and saved as: final_video.mp4

This video includes:
- Voice narration of the script
- AI-generated image in the center
- Background image
- Scrolling headline at the bottom

⬚Output Files

File Name	Description
final_video.mp4	Final video with audio, image, and headline
output.mp3	Audio narration of the script
ai_image.jpg	Image generated from ClipDrop based on news
background.jpg	Static background used in video

Summary

This AI Video Generator automates video creation using news headlines. It uses:
- News API for fetching headlines
- OpenRouter API for script generation
- TTS for audio
- ClipDrop for AI image
- MoviePy and ImageMagick to generate the final video