Personalized AI Chatbot

To create an entertainment-focused AI chatbot with customizable personalities that can reference information from a specified YouTube playlist or channel.

Requirements:
1. Personality Customization: The chatbot should be able to adopt different personality types based on the Myers-Briggs Type Indicator (MBTI) or something else (funny, empathetic, logical, Witty etc). The owner should have the ability to modify the personality type assigned to the chatbot. Each user will interact with a chatbot with a fixed personality type, although this can be changed by the owner if needed. This could be done in the prompt engineering level
2. YouTube Integration: The chatbot should be able to pull and reference data from specific videos in a YouTube playlist or channel. The primary data of interest are the video transcriptions. The chatbot does not need to play videos or use video comments for memory.
3. Voice Interface: The chatbot should have a voice interface leveraging OpenAI's Whisper for speech-to-text and ElevenLabs API for text-to-speech. The interaction should be smooth and of high quality, prioritizing user experience.
4. Purpose: The chatbot's primary function is to provide entertainment. It can also conduct customer surveys and support learning but these are secondary and tertiary functions, respectively.
5. Platform: The chatbot should be developed as a web application or standalone computer application, depending on which is easier to develop within the given timeframe. Prefer most of the dev to be done on python with minimal focus on ui.

Constraints:
A concept prototype is required by June 20th or 21st.

Features:

1. User Interaction: The chatbot should be able to maintain a coherent and context-aware conversation with users, making it enjoyable and entertaining.
2. Context-Aware References: The chatbot should have the capability to reference content from the specified YouTube playlist or channel during conversations if relevant topics come up. (Feel free to use this https://github.com/emmethalm/youtube-to-chatbot or other library if you are aware of it)
3. Personality-Driven Responses: The chatbot's responses should be influenced by the currently set Myers-Briggs personality type, creating a unique user interaction experience.

Future Enhancements:
1. Customer Surveys: The chatbot should have the ability to conduct customer surveys as a secondary function. These surveys must be customizable and adaptable according to the needs of the owner
2. Reliability: The chatbot should consistently function as expected and provide a reliable user experience.
3. Performance: Response times should be fast enough to maintain a natural conversation flow.
4. Security: Any data collected should be stored securely and comply with data privacy laws.
5. User-Bot Interaction History: The chatbot should store and have access to the history of interactions with each user. This history should be used to maintain context between conversations and deliver a personalized experience. The data storage and retrieval process should be designed to be efficient and scalable, supporting many users and large conversation histories. Care should be taken to ensure this feature complies with all relevant data privacy regulations and secure data handling practices.