Cloning Google Quickdraw Game

Overview

The project aims to create an interactive pictionary game where players draw a word, and an AI model, Gemini, attempts to guess it. The primary objective is to get Gemini to make accurate guesses in the shortest possible time.

Objectives

1. **Word List Generation**: Create a list of words that are easy to draw and guess.
2. **Game Logic**: Develop the application logic to facilitate drawing, sending images to Gemini, and evaluating responses.
3. **Response Evaluation**: Implement a system to check if Gemini's guess matches the word drawn.

Fundamentals

1. **List of Words**: Generate a list of simple, drawable words using Gemini. Utilize parameters like temperature to ensure diverse and creative outputs.
2. **User Interface**: Develop an interface for users to draw and submit their images.
3. **Prompt Design**: Create prompts for Gemini to ensure it recognizes complete drawings and guesses accurately.
4. **Response Handling**: Structure Gemini’s responses in a way that makes it easy to evaluate if the guessed word is correct.

Steps to Implement

1. Creating a List of Words

- Use Gemini to generate a list of words that are simple to draw and easy to guess.
- Adjust the temperature parameter to balance creativity and control over the output.

2. Building the QuickDraw Bot

- Develop a drawing interface for users to create their images.
- **Click here** to download the sample code for the Draw Interface.
- Set up a system to send these images to Gemini.
- Design prompts that instruct Gemini to guess only when the drawing is complete.

3. Evaluating Gemini Responses

- Gemini's responses should be structured creatively but must be evaluated for accuracy.
- Implement logic to check if Gemini's guess contains the correct word.
    - Use Gemini to evaluate if the response matches the drawing.
    - Alternatively, use Python code to parse the response and check for the correct word.
- A much better logic:
    - Define the `response_mime_type` parameter in the `GenerationConfig` class to return Gemini's output in JSON format.
    - Parse the JSON output to easily evaluate Gemini's guess in Python.