## **Cloning Google Quickdraw Game**

#### Content Protection Notice

All course materials provided, including lecture recordings, class notes, code files, and any other related content, are copyright protected and the intellectual property of Innomatics Research Labs. These materials are for your personal educational use only and should not be shared, distributed, or uploaded to any external platforms such as GitHub, LinkedIn, or any other websites or social media channels. Unauthorized sharing, reproduction, or distribution of this content is strictly prohibited and may result in legal action. Thank you for respecting our intellectual property rights and helping us maintain the integrity of our educational resources.

### **Overview**

The project aims to create an interactive pictionary game where players draw a word, and an Al 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.

#### Content Protection Notice

All course materials provided, including lecture recordings, class notes, code files, and any other related content, are copyright protected and the intellectual property of Innomatics Research Labs. These materials are for your personal educational use only and should not be shared, distributed, or uploaded to any external platforms such as GitHub, LinkedIn, or any other websites or social media channels. Unauthorized sharing, reproduction, or distribution of this content is strictly prohibited and may result in legal action. Thank you for respecting our intellectual property rights and helping us maintain the integrity of our educational resources.