Gemini Text Animation Hook – Documentation

⍰ Purpose:

This custom React hook connects with the Gemini 1.5 Flash API, fetches generated content from a prompt, processes bolded content, and animates it word-by-word using timed delays.

⍰ Hook Signature:

```
export const GeminiApiFetchHook = (prompt) => { … }
```

⍰ Flow Breakdown:

1. Triggering the API Call

React useEffect runs whenever the prompt changes.
Calls the main() function which performs all the logic.

```
useEffect(() => {
  main(prompt);
}, [main, prompt]);
```

2. Sending Prompt to Gemini API

Uses the GoogleGenerativeAI SDK to send the prompt and fetch the response.
The response text is extracted from:

```
result.response.candidates[0].content.parts[0].text;
```

3. Splitting Text Using ** for Bold Formatting

Splits the response text into parts where:
- Even indices → Normal text
- Odd indices → Bold text

```
let responseArray = finalText.split("**");
```

4. Rebuilding Response With HTML Tags

Rebuilds the response into HTML:
- Bold content is wrapped with <b> tags

- Adds <br/> before and after bold text

This allows the response to be styled properly.

5. Cleaning Up Extra Asterisks

Removes any leftover '*' characters:

```
let newModifiedResponse = newResponse.split('*').join("");
```

6. Splitting Into Words

Converts the HTML-formatted response into an array of words to animate.

7. Typing Animation with Delay

Each word is revealed with a 50ms delay:

```
setTimeout(() => {
  setText(newWord);
}, 50 * index);
```

8. Clearing Input After Fetch

Resets the input field after the response is animated.

```
setInput("");
```

⍰ Hook Return:

Returns:

- text: The animated, formatted response
- setText: Allows manual control if needed
- loading: Boolean to show loading state
- main(prompt): Manually trigger the fetch

⍰ Example Output Formatting:

Input Prompt:
"Explain **Photosynthesis** in simple terms"

Final HTML Output:
"Explain <br/><br/><b>Photosynthesis</b><br/> in simple terms"

Animated Display:

- 'Explain' appears
- 50ms later: 'Explain Photosynthesis'
- 50ms later: 'Explain Photosynthesis in'
- and so on...