



TALKING NOTES

PLUG INTO AI WITH AI21 HACKATHON '23

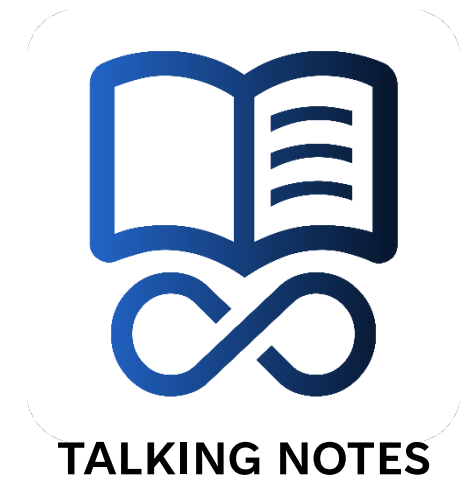
BY TEAM INFINITELY-SAME

PROBLEM STATEMENT

- Reviewing extensive notes with thousands of lines of data can be a daunting task, often requiring a [substantial amount of time to extract crucial information](#).
- Regular-Expression based searches lead to [inadequate results](#).
- A smaller assortment of data needs to be maintained to behave as a reference to the actual data. For example, a set of [particular catchphrases](#) present in the actual notes list.

SOLUTION OVERVIEW

- **Talking Notes** is an innovative **Chrome extension** designed to enhance the user experience of searching through Google Keep notes using the power of AI. It leverages the **AI21 Jurassic-2 model's API** to provide intelligent assistance to end users.
- By utilizing the AI21 Jurassic-2 models, Talking Notes **brings advanced natural language processing capabilities to Google Keep**. Users can input search queries in conversational language, allowing for more intuitive and flexible note retrieval.

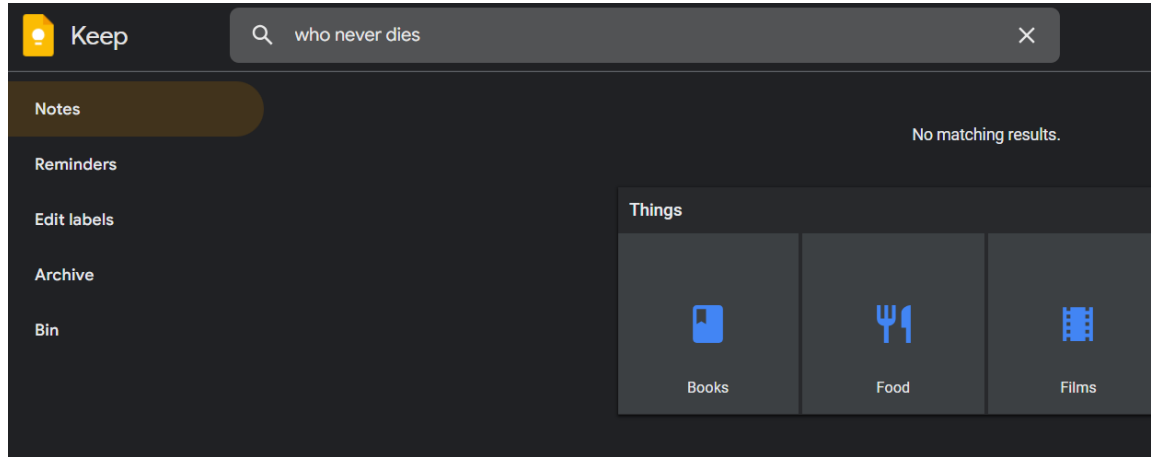


PROTOTYPE



The **Talking Notes** Extension was tested on a set of notes about fictional characters. While Google Keep was able to find notes with the exact wording, it **[Google Keep] failed when correlated text was used for searching.**

Talking Notes, however, **excelled in both cases.** Thus proving to be a useful add-on.



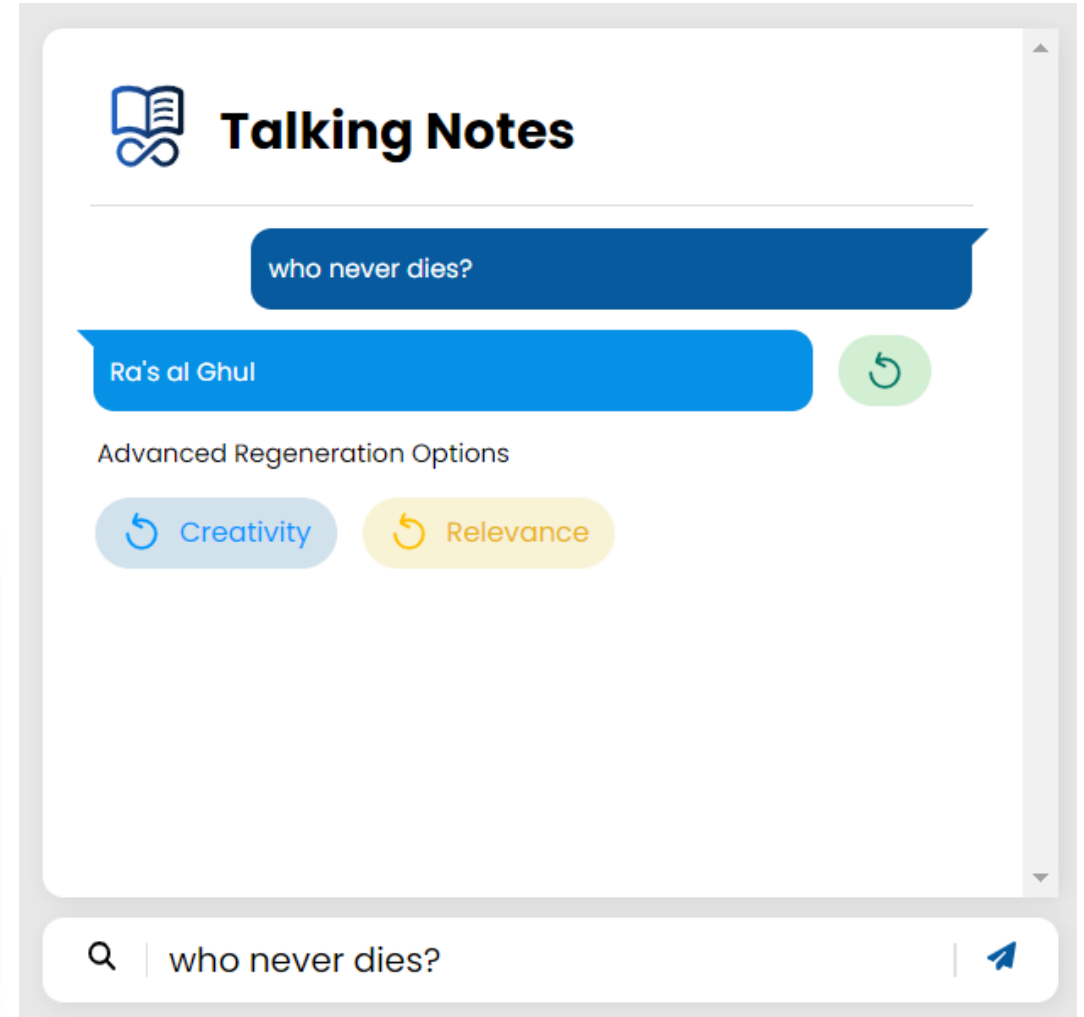
Ra's al Ghul

Fighting Style: Skilled martial artist, master of various combat forms.

Hobbies: Seeking **immortality**, training the League of Shadows.

Catchphrase: "The way of the League of Shadows is justice."

History: Ra's al Ghul, whose name translates to "The Demon's Head," is the leader of the League of Shadows, an ancient and secretive organization. He is driven by his goal to restore balance to the world through extreme methods, including cleansing it of what he sees as corruption. Ra's al Ghul is virtually **immortal**, thanks to the Lazarus Pits.



Another scenario where Talking Notes proves to be incredibly useful is [Text Generation](#). It can comprehensively write descriptions and stories about a character. [This functionality isn't present in any note-taking app at the moment.](#)

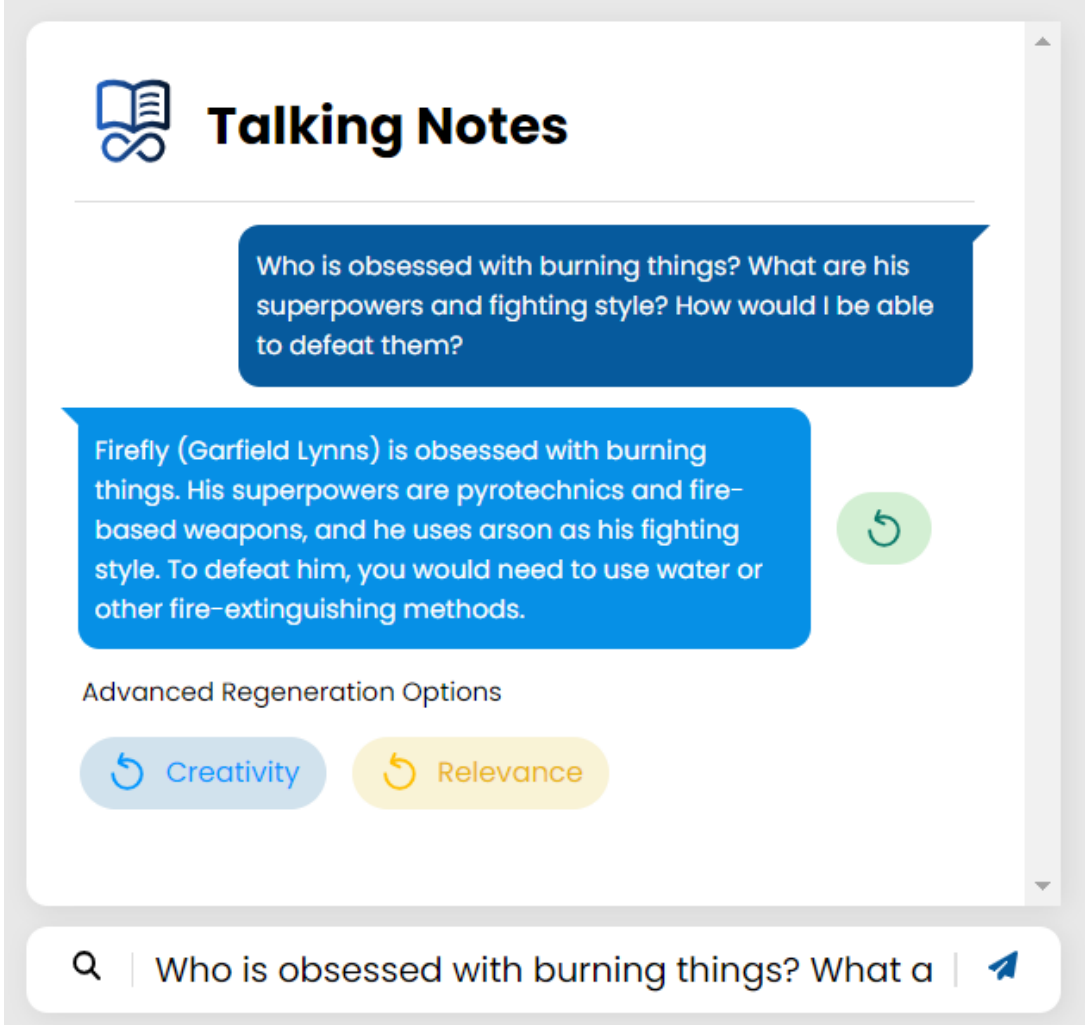
Firefly (Garfield Lynns)

Fighting Style: Expert in pyrotechnics and fire-based weapons, skilled in arson.

Hobbies: Setting fires, obsessed with flames.

Catchphrase: "Burn it all!"

History: Former pyrotechnics expert who turned to a life of crime, wearing a fireproof suit and using various incendiary devices.



The screenshot shows the 'Talking Notes' app interface. At the top left is a book icon. The title 'Talking Notes' is displayed in bold. Below the title is a blue speech bubble containing the prompt: 'Who is obsessed with burning things? What are his superpowers and fighting style? How would I be able to defeat them?'. Below the prompt is a larger blue speech bubble containing the generated response: 'Firefly (Garfield Lynns) is obsessed with burning things. His superpowers are pyrotechnics and fire-based weapons, and he uses arson as his fighting style. To defeat him, you would need to use water or other fire-extinguishing methods.' To the right of the response bubble is a green circular refresh icon. Below the response is the text 'Advanced Regeneration Options' followed by two buttons: 'Creativity' (blue) and 'Relevance' (yellow). At the bottom is a search bar with the text 'Who is obsessed with burning things? What a' and a blue arrow icon on the right.

APPROACH

INSIDE THE SOURCE CODE

AI21 JURASSIC-2 ULTRA

Retrieve and display the generated response
Regenerate response for user satisfaction

REST
API

Query and context are sent to AI21 API.

GOOGLE CHROME

SCRAPE ALL NOTES DATA

User provides a
search query.

GOOGLE KEEP

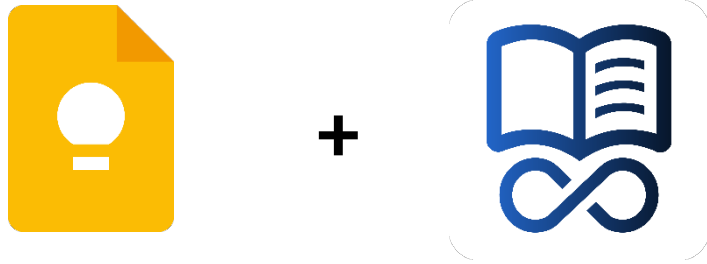
TALKING NOTES

TECHNOLOGIES USED

- TypeScript
- HTML + CSS
- Webpack
- Node.js
- AI21 Jurassic-2 Ultra API



COMPARISON



GOOGLE KEEP with TALKING NOTES

- Integrated with Jurassic-2 (Ultra), it has the AI advantage for sentiment analysis and text classification as LLM's ability to capture the contextual meaning of the text.
- Works on embedded text



GOOGLE KEEP

- Works on specific keyword based searches, using regular expressions to find the accurate matches.

FUTURE IMPACT

Expanding the capabilities of various services through the integration of natural language processing (NLP) goes beyond Google Keep notes. Taking it a step further, the combination of talking notes with AI21's Jurassic-2 Ultra introduces a new level of sophistication.

FURTHER IMPROVEMENTS

- **Historical Tracking:** Track the history of user queries and contexts. This enables users to refer back to previous questions and associated notes, facilitating a seamless and efficient note retrieval process.
- **AI-Assisted Suggestions:** Enable the AI to provide intelligent suggestions based on the given notes and context. The system can analyze the content and patterns within the notes to offer relevant recommendations for further exploration or related information.
- **Emotional Analysis:** Enhance the capabilities of Talking Notes by incorporating fine-tuned use cases for emotional analysis. This would allow the AI to detect and understand the emotional context within the notes, enabling more personalized and empathetic responses.
- **Integration with Existing AI Assistants:** Explore possibilities for integrating Talking Notes as an add-on to existing AI assistants like Siri or Google Assistant. This integration would expand the reach and accessibility of the solution, allowing users to leverage its note searching capabilities within their preferred virtual assistant platforms.

ABOUT US

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Extension Foundations
Scraper Scripting
UI/UX



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Core Functionality
AI21 API Calls
Regeneration Controls

Thank You
