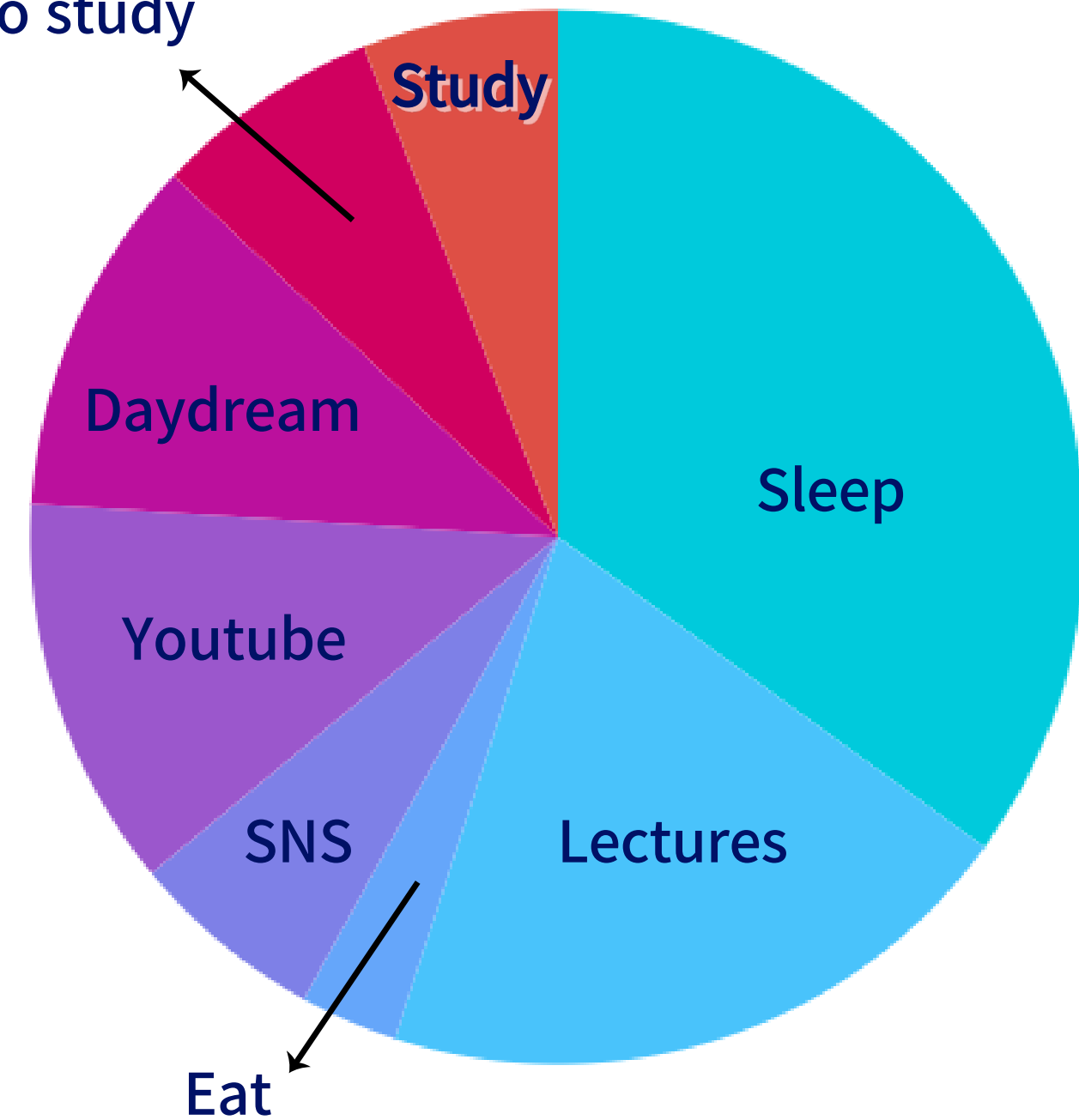


How was your exam?



Me a week before the exam

Thinking that I
need to study



My average day

**How might we instantly reward
ourselves for our study efforts?**

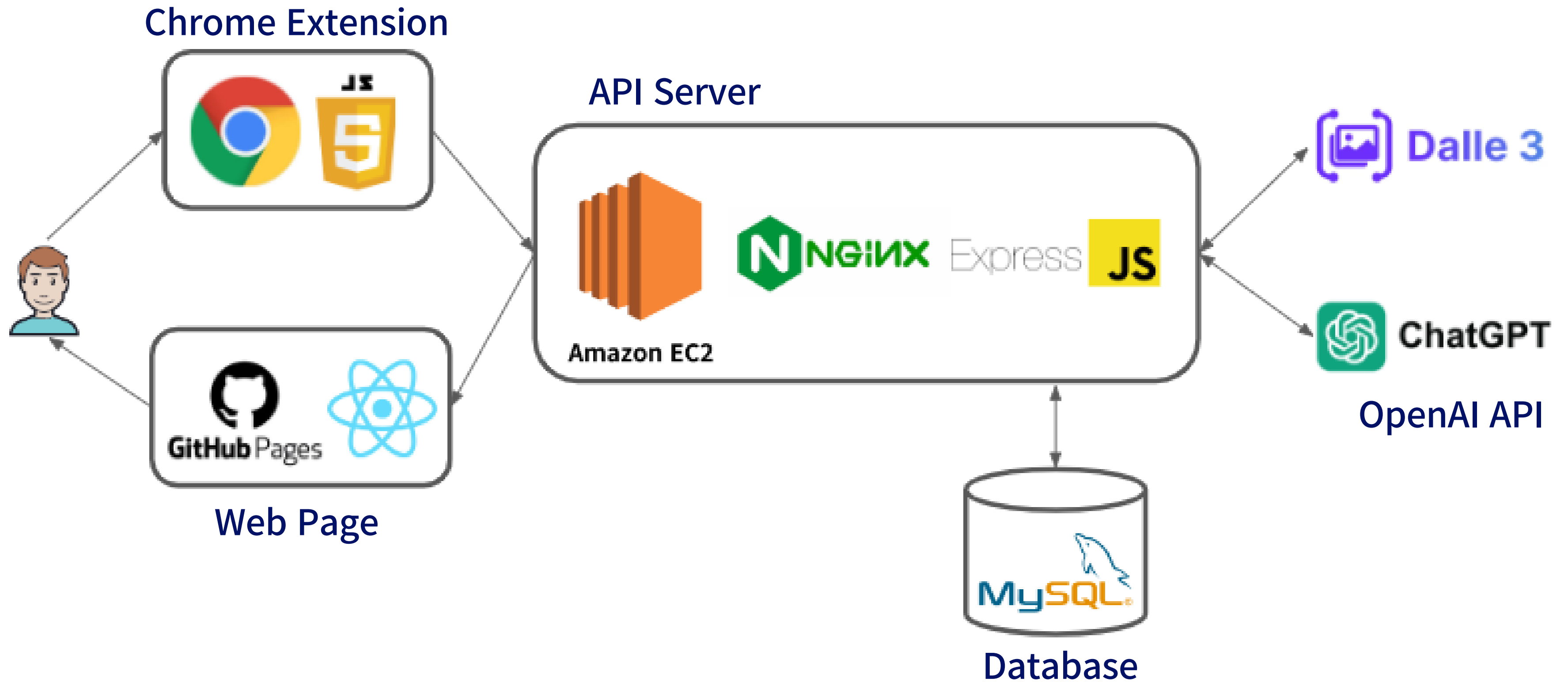


Small but certain motivation for your journey

Seungjin Yu / Seungjae Lim
Seoyeon Lee / Sehoon Lim

DEMO

Pebble Tech Stack



Chrome Extension (Seungjin Yu)

crawling the visited stackoverflow site
(<https://stackoverflow.com/questions/>*)
extension send the crawling data to server when user click the export button.

Visited Pages

- <https://stackoverflow.com/questions/503093/how-do-i-redirect-to-another-webpage/506004#506004> (Date: 2024-10-28)
- <https://stackoverflow.com/questions/tagged/jquery> (Date: 2024-10-28)
- <https://stackoverflow.com/questions/79133090/changing-a-parent-element-css-property-based-on-href> (Date: 2024-10-28)

Export Now

Backend (Seungjae Lim)



POST
Generate

Parsing
Stackoverflow



Appropriate
K Selection

K-mean
Clustering

Async Batched
OpenAI API Call



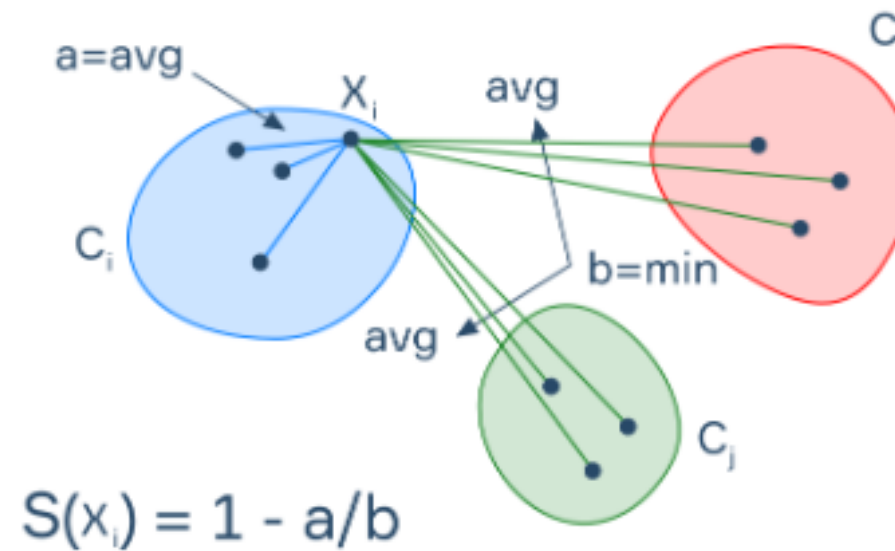
Dalle 3



ChatGPT

Retrieve

GET
getDiary



Prompt (Seoyeon Lee)

Few-shot prompting

: A technique that provides the AI with a few examples to help it learn the desired response style or format.

1. Uses DALL-E to request image generation that visually represents the topic.

```
return openai.images.generate({
  model: "dall-e-3",
  prompt: `Create a detailed image for the topic: "${summary}".
  Examples:
  - Topic: "Binary Tree Traversal"
    Image: Show a binary tree with nodes labeled in a specific order. Highlight traversal paths (pre-order, in-order, post-order) with arrows.
  - Topic: "Merge Sort Algorithm"
    Image: Illustrate the merge sort process with an array being split and merged step-by-step.
  - Topic: "Understanding Few-Shot Learning"
    Image: Depict a machine learning model with a few examples (images or data points) being fed into it.
    Image: ...
  `,
  n: 1,
  size: "1792x1024",
});
```

2. Generates a summary for a student's learning diary.

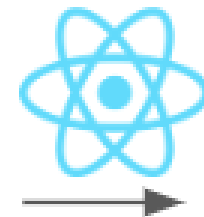
3. Use GPT-4 to create a suitable title for a StackOverflow post.

Frontend (Sehoon Lim)



Retrieve

GET
getDiary



OCT

Welcome

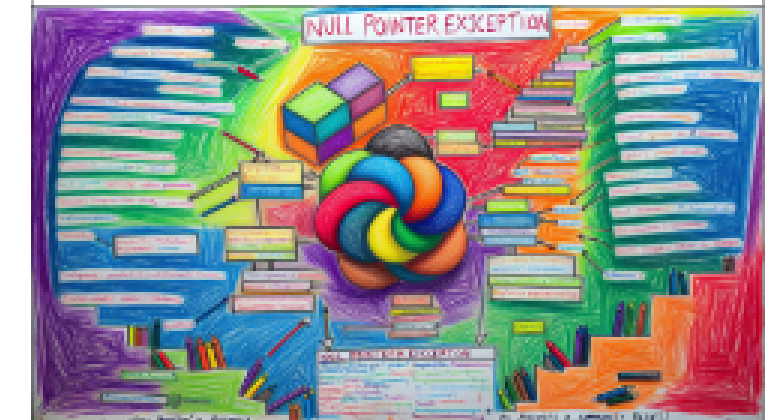
Small pebbles make a mountain

Sun	Mon	Tue	Wed	Thu	Fri	Sat
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

```
useEffect(() => {
  const fetchData = async () => {
    try {
      const response = await fetch(`http://13.209.82.235:8000/api/diary/get_diary/${user_id}`, {
        method: 'GET',
        headers: {
          'Content-Type': 'application/json',
        },
      });
      if (response.ok) {
        const data = await response.json();
        setServerData(data);
      } else {
        console.error("Failed to fetch data:", response.status);
      }
    } catch (error) {
      console.error("Error fetching data:", error);
    }
  };
  fetchData();
}, []);
```

Date: 2024-10-31

Studied time: 1



Title: Understanding NullPointerException in Java

Today, I learned about NullPointerExceptions in Java, particularly what causes them and how to address these issues. Essentially, they occur when a reference variable is either not initialized or set to null, leading to attempts to access an object that does not exist. It's crucial to always initialize reference variables and use tools like debugging and logging to identify the root cause of these exceptions, ensuring that my programs run smoothly without unexpected crashes.

What we learned

1. AI Image Generation Limitations

: We found that AI-generated images often did not align well with our prompts, particularly with requests for specific styles, such as crayon effects that were not erased.

2. OpenAI API Constraints

: We faced issues with API rate limits and exceeded input length, which required us to implement clustering techniques to manage data effectively.

3. Google's Security Policies

: We discovered that many of our desired actions were restricted by Google's security policies, which posed additional hurdles to our project.