week 8 - book 1

코드

설명

1. javascript의 readline을 사용해서 관심있는 키워드를 입력합니다
2. 입력받은 키워드를 바탕으로 getNewsByKeyword() 함수에 넣습니다.
3. openAI API의 **Function Calling**을 활용하여 Google News API를 호출합니다.
4. 검색된 뉴스 기사를 제목, 설명, URL 형태로 출력합니다.

index.js

```
const readline = require("readline");
const { Configuration, OpenAIApi } = require("openai");
const { fetchGoogleNews } = require("./functionCall");

// OpenAI API 설정
const configuration = new Configuration({
  apiKey:
    "sk---", // OpenAI API 키 입력
});
const openai = new OpenAIApi(configuration);

async function getNewsByKeyword(keyword) {
  const functions = [
    {
      name: "fetch_google_news",
      description: "Fetches news articles from Google News ba
      parameters: {
        type: "object",
        properties: {
          query: {
            type: "string",
            description: "The keyword for fetching news",
          },
        },
        required: ["query"],
      },
    },
  ];

  const messages = [
    {
      role: "system",
      content: "You are an assistant helping the user find ne
    },
    {
      role: "user",
      content: `Find news articles about "${keyword}".`,
    },
  ];

  try {
    const response = await openai.createChatCompletion({
      model: "gpt-4-0613",
      messages: messages,
      functions: functions,
    });

    const functionCall = response.data.choices[0]?.message?.f

    if (functionCall && functionCall.name === "fetch_google_n
      const { query } = JSON.parse(functionCall.arguments);
      const newsArticles = await fetchGoogleNews(query);
      return newsArticles;
    }
  } catch (error) {
    console.error("OpenAI API 에러:", error.message);
    throw new Error("뉴스 검색에 실패했습니다.");
  }
}

const rl = readline.createInterface({
  input: process.stdin,
  output: process.stdout,
});

rl.question("검색할 키워드를 입력하세요: ", async (keyword) => {
  if (!keyword) {
    console.error("키워드를 입력해주세요!");
    rl.close();
    return;
  }
  const articles = await getNewsByKeyword(keyword);
  console.log("뉴스 기사:", articles);
  rl.close();
});
```

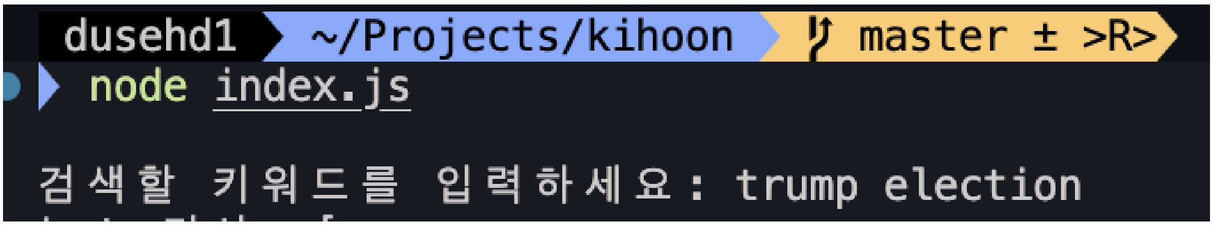
functionCall.js

```
// functionCall.js
const axios = require("axios");

// Google News API 호출 함수
async function fetchGoogleNews(query) {
    const apiKey = "---"; // NewsAPI API 키 입력
    const apiUrl = `https://newsapi.org/v2/everything?q=${enc

    try {
        const response = await axios.get(apiUrl);
        return response.data.articles.map((article) => ({
            title: article.title,
            description: article.description,
            url: article.url,
        }));
    } catch (error) {
        console.error("Google News API 호출 에러:", error.messa
        throw new Error("뉴스 데이터를 가져오는 데 실패했습니다.");
    }
}
```

```
module.exports = { fetchGoogleNews };
```

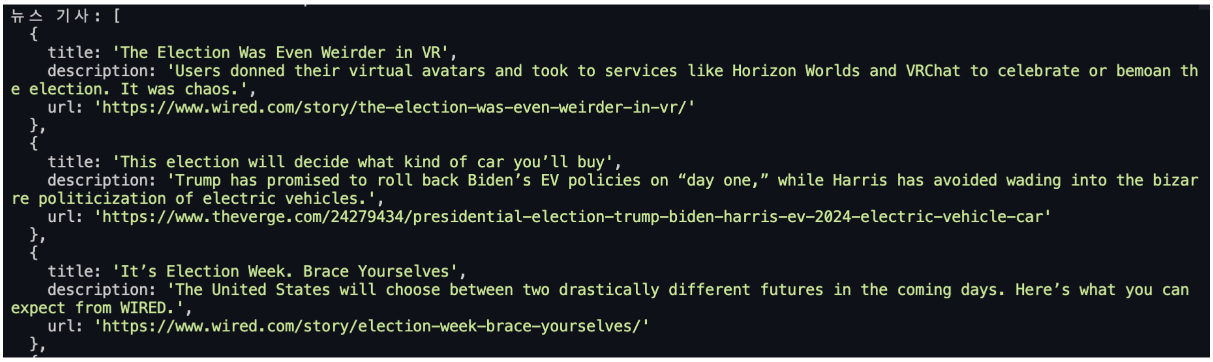
실행 및 결과

실행



```
 dusehd1  ~/Projects/kihoon  master ± >R>
 node index.js

검색할 키워드를 입력하세요: trump election
```

결과



```
뉴스 기사: [
  {
    title: 'The Election Was Even Weirder in VR',
    description: 'Users donned their virtual avatars and took to services like Horizon Worlds and VRChat to celebrate or bemoan th
e election. It was chaos.',
    url: 'https://www.wired.com/story/the-election-was-even-weirder-in-vr/'
  },
  {
    title: 'This election will decide what kind of car you’ll buy',
    description: 'Trump has promised to roll back Biden’s EV policies on “day one,” while Harris has avoided wading into the bizar
re politicization of electric vehicles.',
    url: 'https://www.theverge.com/24279434/presidential-election-trump-biden-harris-ev-2024-electric-vehicle-car'
  },
  {
    title: 'It’s Election Week. Brace Yourselves',
    description: 'The United States will choose between two drastically different futures in the coming days. Here’s what you can
expect from WIRED.',
    url: 'https://www.wired.com/story/election-week-brace-yourselves/'
  },
```

위와 같은 뉴스들이 검색되어 나옵니다.