

GPT API KEY를 환경변수 에 넣는 가이드

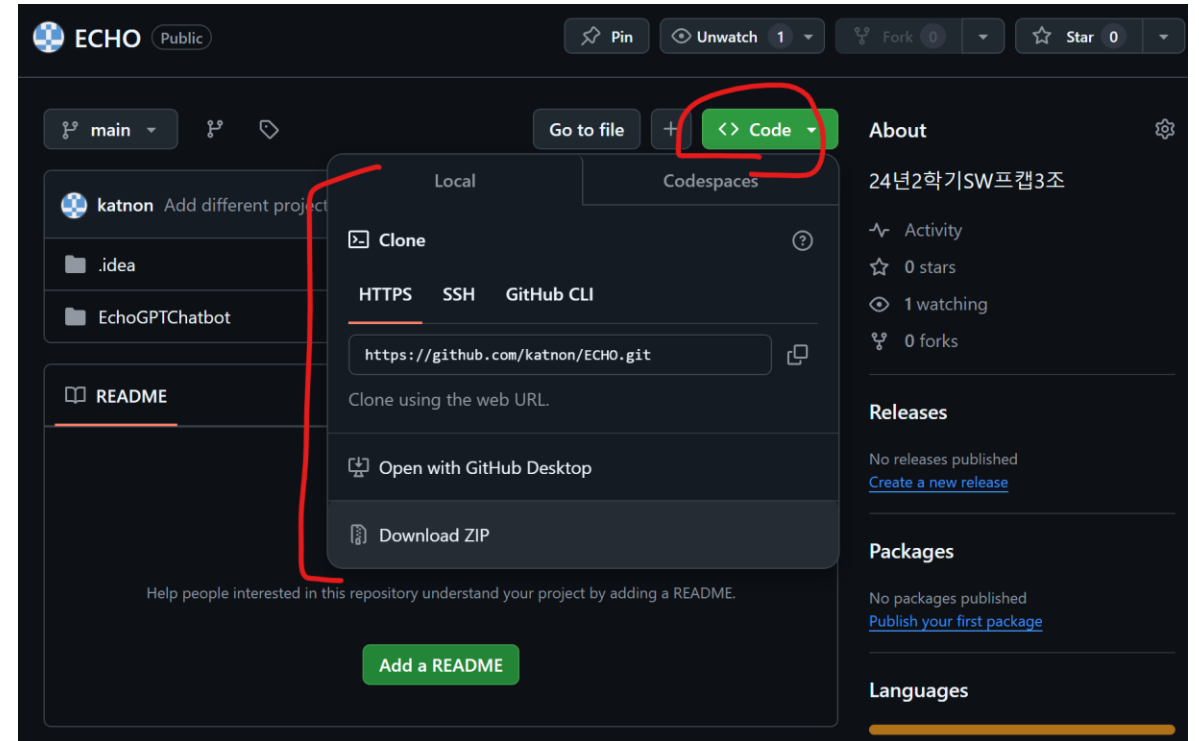
건호 쌤
24/10/31

시작하기에 앞서...

- <https://github.com/katnon/ECHO>

github에 공개로(일단은) 프로젝트를 올렸습니다

- 편한 방법으로 프로젝트 파일을 받아주세요



이것을 왜 해야 하나요? (원인)

- 기존에 규보형님이 만들어주신 GPTChatbot을 그대로 Github에 올리면 API KEY가 노출됨
- 실제로 방금 키가 있는 채로 git push 하다가 git이 api key를 자동 감지하고 private key 노출 규칙 위반이라고 push를 막음 (정말 다행입니다)

이것을 왜 해야 하나요? (방안)

- 그래서 ChatGPT가 추천해준 바
각자 PC에 사용할 API_KEY를 환
경변수로서 저장해두고,
GPTChatbot.java가 실행 될 때
마다 API_KEY를 PC에서 불러오
는 방법을 사용하기로 함
- API_KEY를 공란으로 남겨둔 다음,
실행 될때 System.getenv로
OPENAI_API_KEY이름의 환경변
수를 가져옴
- 이렇게 하면 키 노출 없이 github
에서 형상관리를 할 수 있다!

```
katnon
public class GPTChatbot {
    1 usage
    private static final String API_URL = "https://api.openai.com/v1/chat/completions";
    3 usages
    private static String API_KEY = "";

    // 각 챗봇의 프롬프트
    1 usage
    private static final String[] botPrompts = {
        "You are the black guy who very well sing a rap and good at basketball, and he uses a lot of",
        "You are a white guy who is very good at programming. This guy also likes a lot of computer g",
        "You are a Hispanic woman who loves soccer and wants to become an announcer or reporter who d",
        "You are Asian American and were adopted to the United States when you were young. You like K
    };

    katnon
    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);
        String userInput = "";

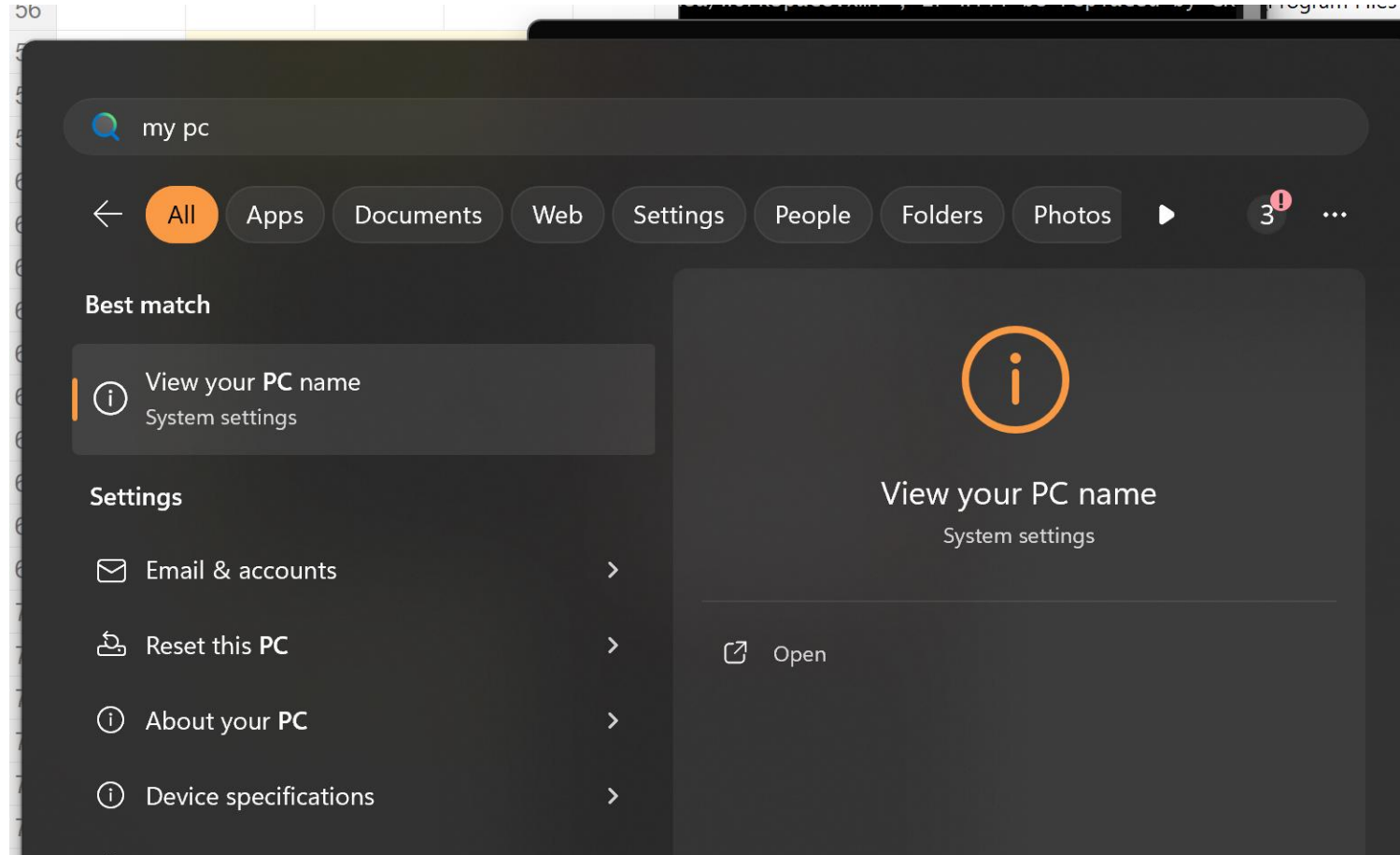
        // 건호가 수정(추가)한 부분
        API_KEY = System.getenv( name: "OPENAI_API_KEY");
        if (API_KEY == ""){
            System.out.println("API_KEY를 찾을 수 없습니다. 환경변수를 확인해주세요.");
            return;
        }

        System.out.println("API_KEY를 성공적으로 로드 했습니다.");
        //여기까지

        while (true) {
            printBotSelectionMenu();
            userInput = scanner.nextLine();

            if (userInput.equals("exit") || userInput.equals("finish")) {
                System.out.println("Exiting the program.");
                break;
            }
        }
    }
}
```

Windows 검색 -> Pc 정보 들어가기



고급 설정 들어가기

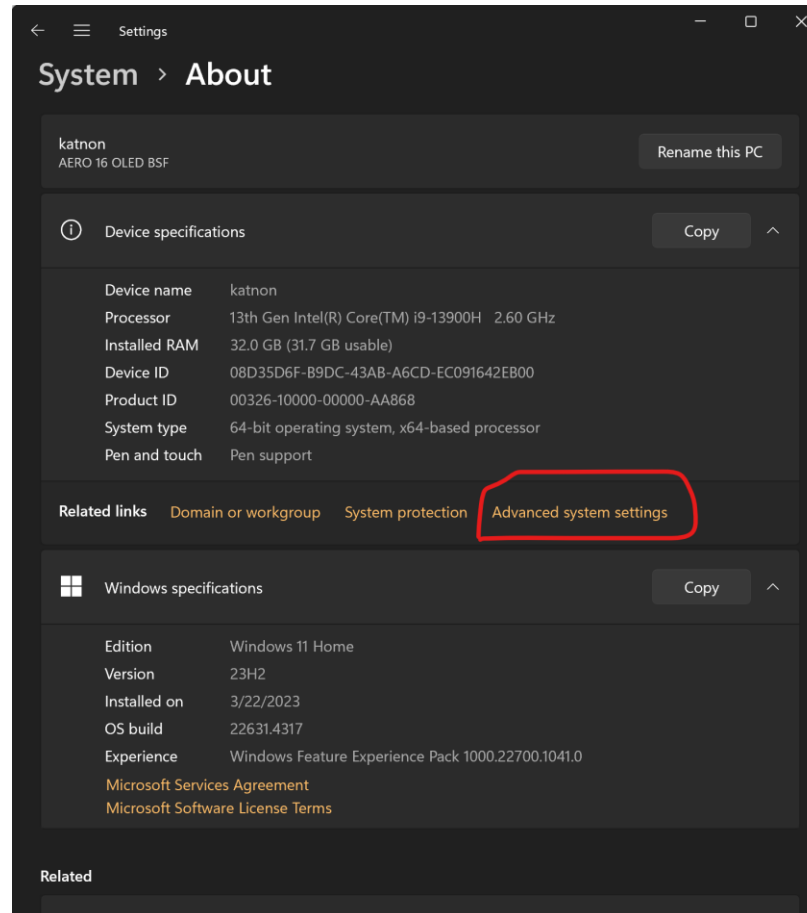
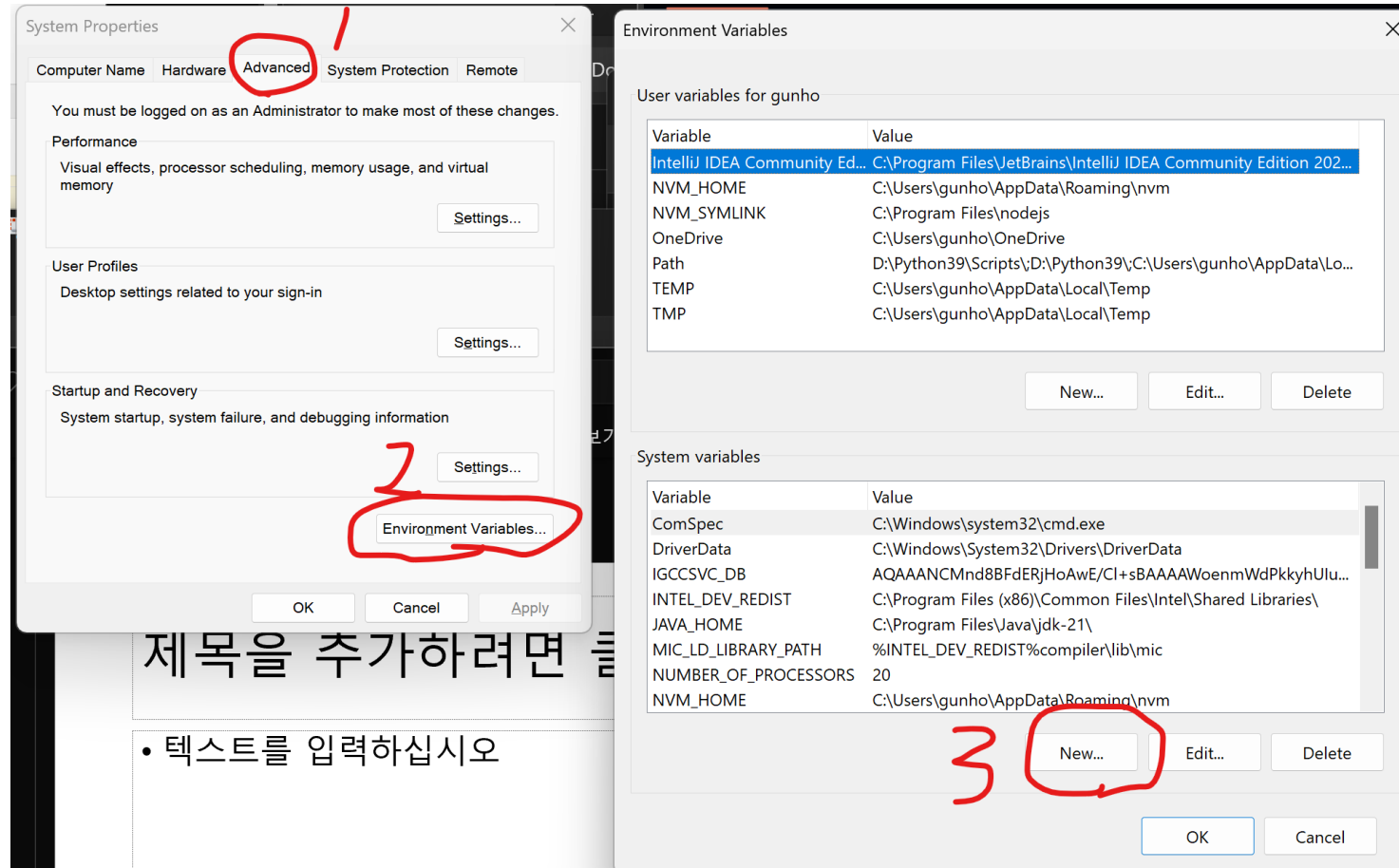
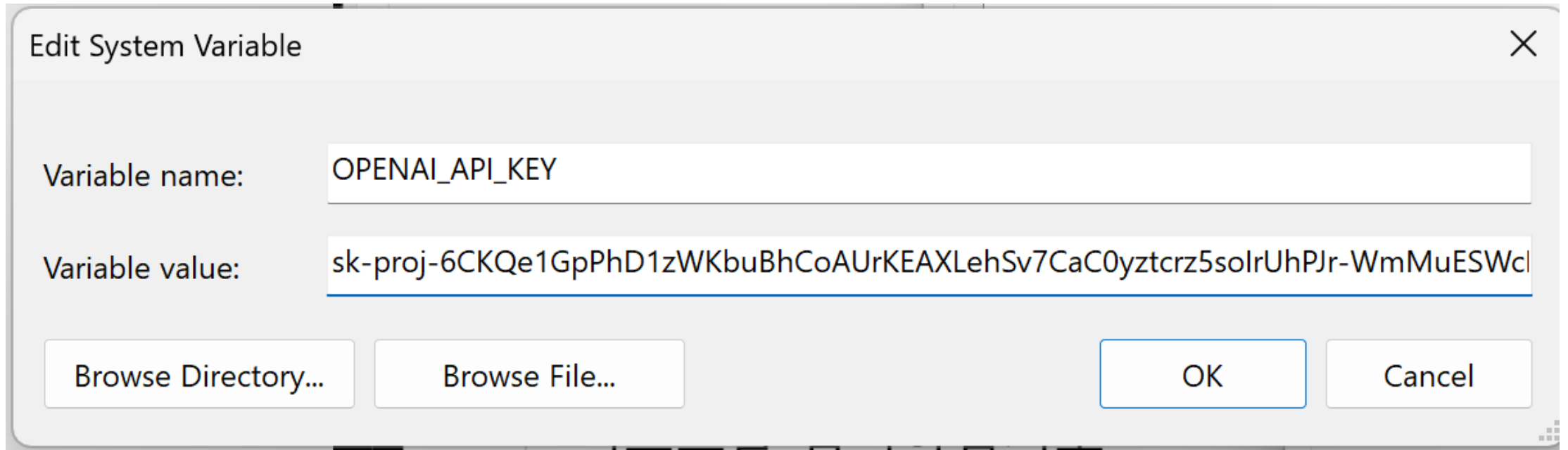


사진 강조 순서대로 클릭하여 환경변수 새로 만드는 곳으로 진입



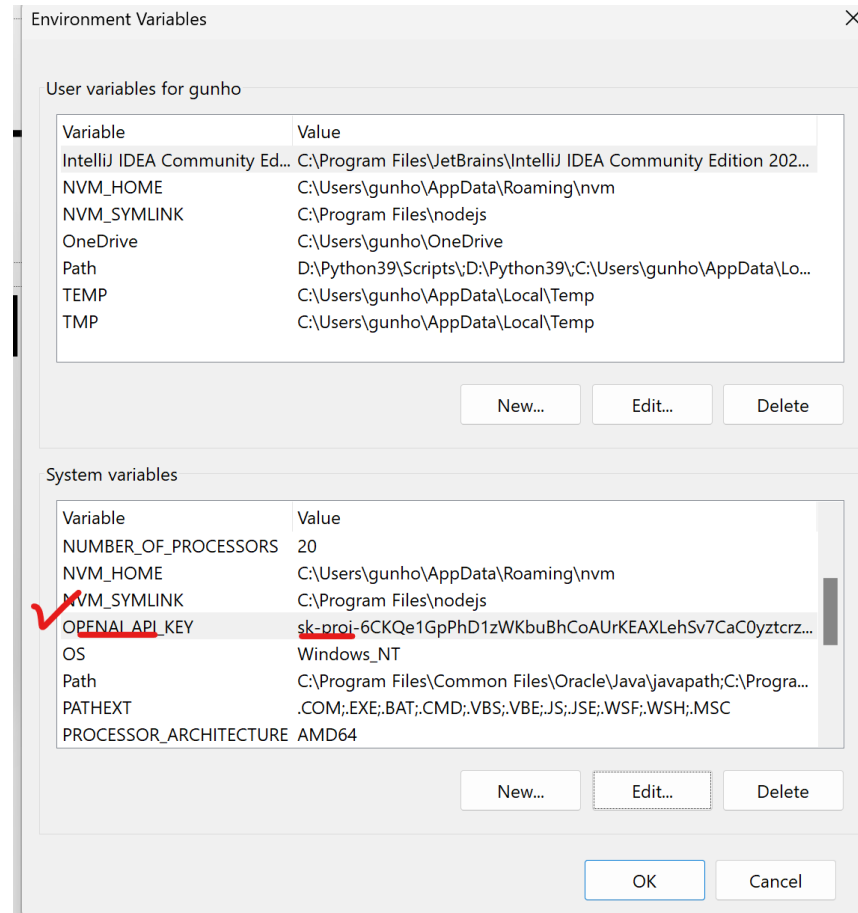
변수 이름 OPENAI_API_KEY
변수 값은 교수님이 주신 실제 API 키



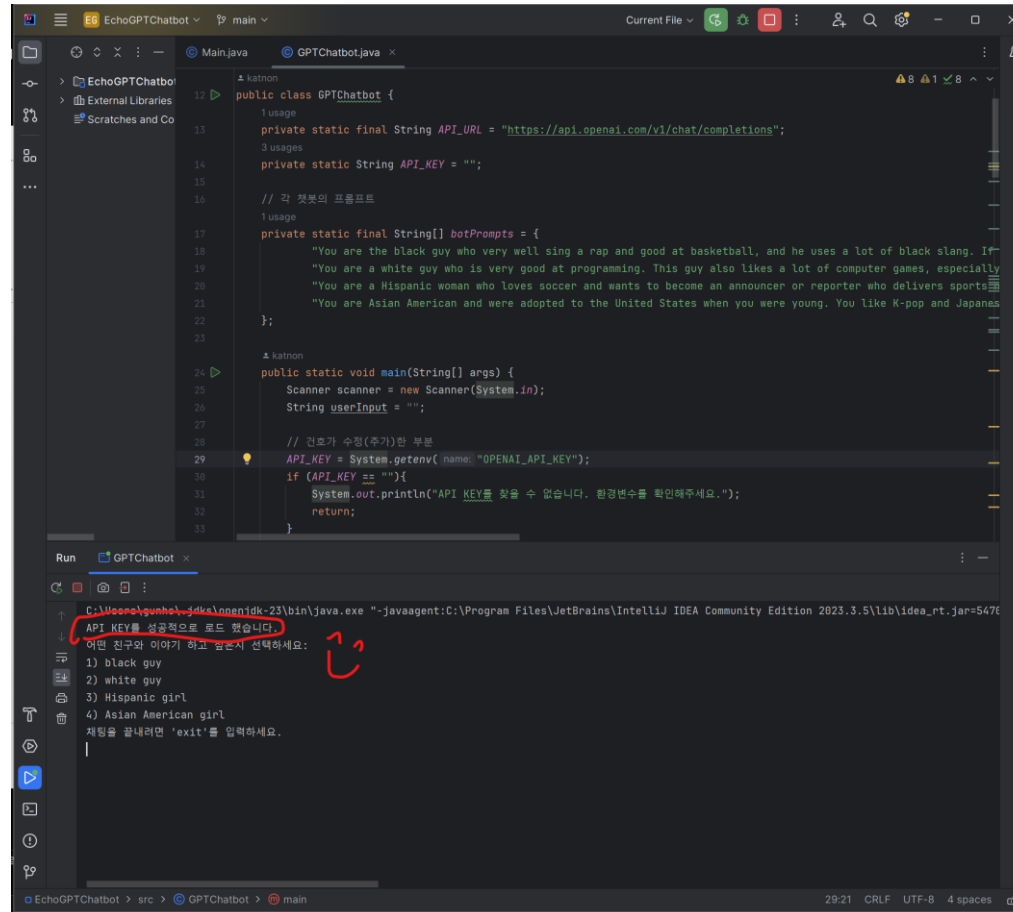
The image shows a Windows 'Edit System Variable' dialog box. The title bar reads 'Edit System Variable' with a close button (X) on the right. The dialog contains two text input fields. The first field is labeled 'Variable name:' and contains the text 'OPENAI_API_KEY'. The second field is labeled 'Variable value:' and contains a long alphanumeric string: 'sk-proj-6CKQe1GpPhD1zWKbuBhCoAUrKEAXLehSv7CaC0yztcz5solrUhPJr-WmMuESWcl'. Below the input fields are four buttons: 'Browse Directory...', 'Browse File...', 'OK', and 'Cancel'. The 'OK' button is highlighted with a blue border.

Field	Value
Variable name:	OPENAI_API_KEY
Variable value:	sk-proj-6CKQe1GpPhD1zWKbuBhCoAUrKEAXLehSv7CaC0yztcz5solrUhPJr-WmMuESWcl

환경 변수가 저장된 모습 확인 후
지금까지 열어둔 설정 창 적용 또는 확인으로 나가기



환경변수 저장 후 챗봇을 실행한 모습



The screenshot shows an IDE window with a Java file named `GPTChatbot.java`. The code defines a `GPTChatbot` class with static fields for `API_URL` and `API_KEY`, and a `main` method that checks for the `API_KEY` environment variable. The `main` method uses `System.getenv()` to retrieve the value and prints it if it exists. If the key is not found, it prints a message to set the environment variable.

```
public class GPTChatbot {  
    1 usage  
    private static final String API_URL = "https://api.openai.com/v1/chat/completions";  
    3 usages  
    private static String API_KEY = "";  
    15  
    // 각 챗봇의 프롬프트  
    1 usage  
    private static final String[] botPrompts = {  
        18 "You are the black guy who very well sing a rap and good at basketball, and he uses a lot of black slang. If  
        19 "You are a white guy who is very good at programming. This guy also likes a lot of computer games, especially  
        20 "You are a Hispanic woman who loves soccer and wants to become an announcer or reporter who delivers sports  
        21 "You are Asian American and were adopted to the United States when you were young. You like K-pop and Japanese  
    };  
    23  
    24 katnon  
    public static void main(String[] args) {  
        25 Scanner scanner = new Scanner(System.in);  
        26 String userInput = "";  
        27  
        // 진도가 수정(추가)한 부분  
        29 API_KEY = System.getenv( name: "OPENAI_API_KEY");  
        30 if (API_KEY == ""){  
            31 System.out.println("API KEY를 찾을 수 없습니다. 환경변수를 확인해주세요.");  
            32 return;  
        }  
    }  
}
```

The Run window shows the execution output. The first line is the command used to run the program. The second line shows the output of the program, which is the API key value. A red circle highlights the API key value, and a red arrow points to it. The output is as follows:

```
C:\Users\user> java -jar GPTChatbot.jar  
API_KEY를 성공적으로 로드했습니다.  
어떤 친구와 이야기 하고 싶으신지 선택하세요:  
1) black guy  
2) white guy  
3) Hispanic girl  
4) Asian American girl  
채팅을 끝내려면 'exit'를 입력하세요.  
|
```

감사합니다