

AI CODE EDITOR

By: Yuliana Jasso

Problem

Lack of advanced AI Code Editors,
besides Cursor

PRODUCTS


```
#!/usr/bin/perl
use strict;
use warnings;

my $url = "https://api.judge0.com/submit";
my $data = {
    "language": "C++",
    "source_code": "
#include <algorithm>
#include <iostream>
#include <limits>
#include <set>
#include <utility>
#include <vector>

using namespace std;

int main() {
    int n;
    cin >> n;
    vector<int> v(n);
    for (int i = 0; i < n; i++) {
        cin >> v[i];
    }
    sort(v.begin(), v.end());
    for (int i = 0; i < n; i++) {
        cout << v[i] << " ";
    }
    cout << endl;
    return 0;
}
",
    "stdin": "
3
2 3 2
3 1 2 5
4 2 2 7
5 1 3
6 3 3
7 1 2 4
8 1 1 7
"
};

curl -X POST -H "Content-Type: application/json" -d "$data" $url;
```



Judge0

Robust, scalable, and open-source online code execution system that can be used to build a wide range of applications that need online code execution features. Some examples include competitive programming platforms, e-learning platforms, candidate assessment and recruitment platforms, online code editors, online IDEs, and many more.


- Quick and easy installation
- Rich and verbose API documentation
- Scalable architecture
- Sandboxed compilation and execution
- Support for 60+ languages^{[1][2]}
- Support for additional files alongside the user's program
- Support for custom user-defined compiler options, command-line arguments, and time and memory limits
- Detailed execution results
- Webhooks (HTTP callbacks)
- Works with AI Agents

[GET STARTED](#) [READ THE WHITEPAPER](#)

Judge0 IDE

Free and open-source online code editor that allows you to write and execute code from a rich set of languages. It's perfect for anybody who just wants to quickly write and run some code without opening a full-featured IDE on their computer. Moreover, it is also useful for teaching and learning or just trying out a new language.

[GET STARTED](#)

C++ (GCC 14.1.0) 

```
main.cpp
1 #include <algorithm>
2 #include <iostream>
3 #include <istream>
4 #include <limits>
5 #include <set>
6 #include <utility>
7 #include <vector>
8
9
10
```

Input

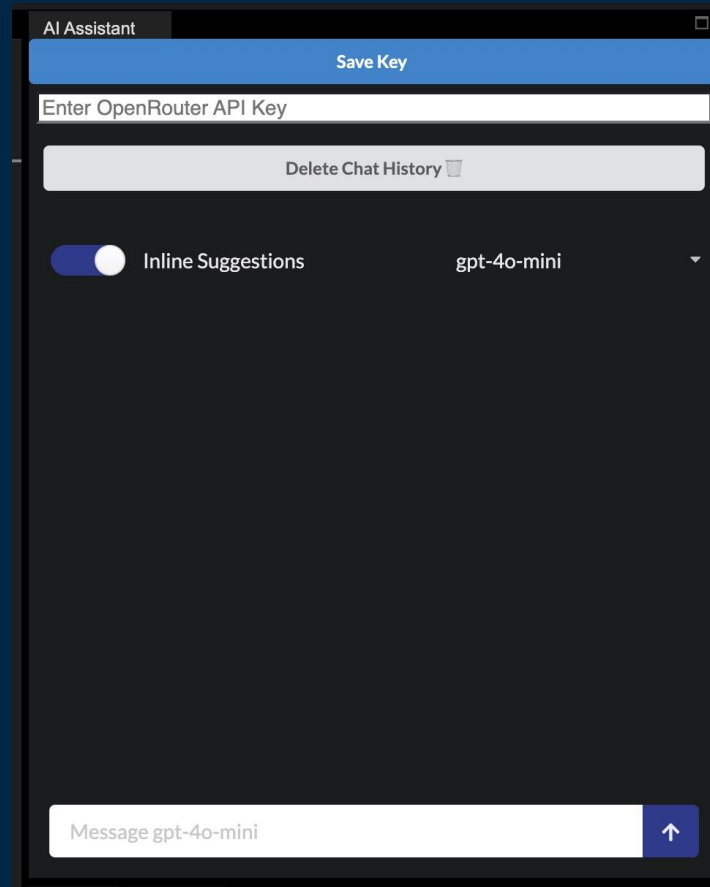
```
3
2 3 2
3 1 2 5
4 2 2 7
5 1 3
6 3 3
7 1 2 4
8 1 1 7
```

How can we improve Judge0's user productivity?

How can we integrate a tutoring system into our code editor platform?

Solution

Create an AI assistant/tutor that improves user productivity and promotes in-platform learning



The screenshot shows a web application titled "AI Assistant". At the top, there is a blue button labeled "Save Key". Below this is a text input field with the placeholder text "Enter OpenRouter API Key". Underneath the input field is a light gray button labeled "Delete Chat History" with a trash icon. Further down, there is a toggle switch for "Inline Suggestions" which is currently turned on, and a dropdown menu showing "gpt-4o-mini". The main area of the interface is a large, empty dark gray space. At the bottom, there is a text input field with the placeholder text "Message gpt-4o-mini" and a blue button with an upward arrow icon.

Key Features

OpenRouter API key input

User can input their own API key of their choice

Tutor

IDE Code Assistance

Inline suggestions

Autocomplete lines of code

Detect and Fix Bugs

AI assistant is able to automatically fix bugs just by simply asking it to fix errors

Line Explanations

AI assistant is able to explain line by line

Automatic changes from AI assistant to IDE

Ask AI assistant for a specific code change and it will implement it automatically in the IDE

AI Code Editor

<https://aicode-editor.vercel.app/>