

Team: Semantic Labs

# Amicus Brief

The Humans are Still in Charge

“

One general law, leading to the advancement of all organic beings, namely,  
multiply, vary, let the strongest live.

— Charles Darwin

# ✦ Agents Aren't Evolved Enough...

We must guide AI Agents (and software in general) in order to achieve better quality results.

# How?

---

## Code Fitness Function

By leveraging LLMs to review code in a structured way on all pertinent aspects, we achieved a normalized measure for code quality.

Doing code reviews on all GitHub Pull Requests, we provide actionable intelligence for code maintainers.

This ensure the code will continuously evolve.

# ✦ Is it any Good?

**It evaluates the code along many axes...  
and is extensible**

It also provides actionable recommendations for further improvements.

## Amicus Brief

Repository: [SamREye/amicus](#)

Pull Request: [7](#)

### About Amicus Briefs

Amicus is a tool that analyzes pull requests and provides feedback on the quality of the code. It is designed to be used by developers to improve the quality of their code and to help them make informed decisions about whether to merge a pull request.

Amicus Briefs provides both an overview of the pull request and a detailed analysis of each file in the pull request: summary, findings and recommendations.

You can find out more about Amicus [here](#)

### Findings:

The overall code quality of the pull request is good. The changes made in the 'lib/CodeReview.py' file improve the code functionality, readability, and maintainability. However, the change of the 'pull\_request\_id' assignment to a hardcoded value seems temporary and should be reverted back to the original code.

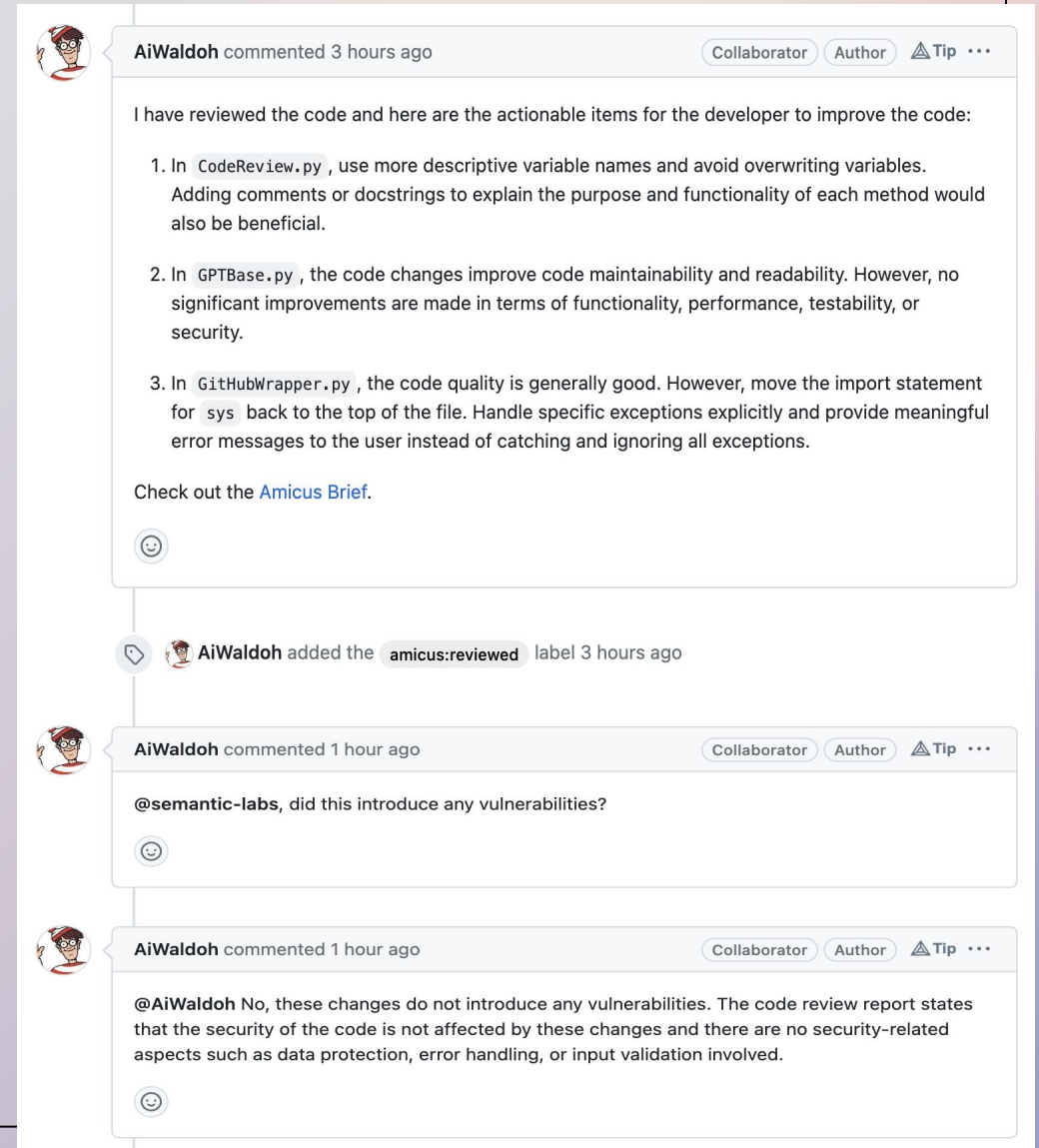
The changes made in the 'tmp/queue.json' file primarily involve adding or changing

|                         |      |
|-------------------------|------|
| <b>Functionality:</b>   | 5.00 |
| <b>Quality:</b>         | 3.75 |
| <b>Readability:</b>     | 5.00 |
| <b>Performance:</b>     | 2.50 |
| <b>Maintainability:</b> | 5.00 |
| <b>Security:</b>        | 2.50 |
| <b>Testability:</b>     | 3.75 |
| <b>Total:</b>           | 3.93 |

# Is it Simple to use?

It shows up right in your repo's pull requests.

The agents even respond to questions



The screenshot displays a GitHub pull request interface with three comment threads from a user named AiWaldoh. Each thread includes a profile picture, a timestamp, and role tags (Collaborator, Author, Tip). The first thread is a code review comment with a list of three items and a link to an Amicus Brief. The second thread is a label addition notification. The third thread is a question directed at semantic-labs regarding vulnerabilities.

**AiWaldoh** commented 3 hours ago Collaborator Author Tip ...

I have reviewed the code and here are the actionable items for the developer to improve the code:

1. In `CodeReview.py`, use more descriptive variable names and avoid overwriting variables. Adding comments or docstrings to explain the purpose and functionality of each method would also be beneficial.
2. In `GPTBase.py`, the code changes improve code maintainability and readability. However, no significant improvements are made in terms of functionality, performance, testability, or security.
3. In `GitHubWrapper.py`, the code quality is generally good. However, move the import statement for `sys` back to the top of the file. Handle specific exceptions explicitly and provide meaningful error messages to the user instead of catching and ignoring all exceptions.

Check out the [Amicus Brief](#).

**AiWaldoh** added the `amicus:reviewed` label 3 hours ago

**AiWaldoh** commented 1 hour ago Collaborator Author Tip ...

@semantic-labs, did this introduce any vulnerabilities?

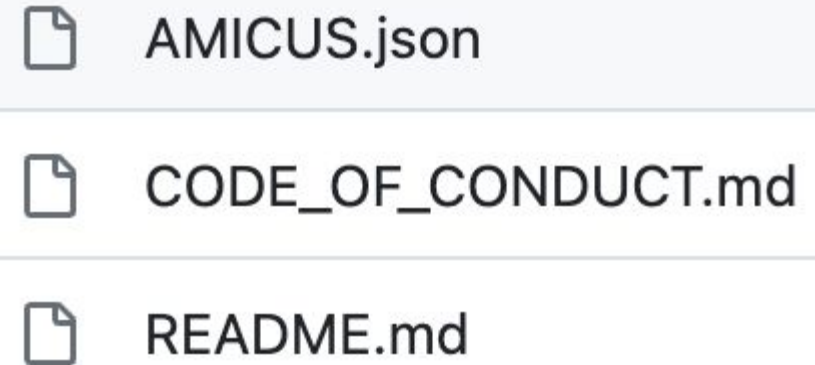
**AiWaldoh** commented 1 hour ago Collaborator Author Tip ...

@AiWaldoh No, these changes do not introduce any vulnerabilities. The code review report states that the security of the code is not affected by these changes and there are no security-related aspects such as data protection, error handling, or input validation involved.

# ✦ How do I Start?

**Onboarding could not be simpler.**

Simply add an AMICUS file in your root folder.



CAVEAT: available by invitation only.

# Business Model



## **Open-source projects are free to use AMICUS**

Encourage the community and get people hooked.



## **Charge \$10 per project**

There are over 130 million repositories on GitHub.



## **The clientele is well defined and reachable**

An agent can simply go out and promote AMICUS to GitHub users by freely posting reviews in comments.



# Team Semantic Labs



*@SamREye: Sam Bourque*

Mobility, Flexibility,  
Speed



*@AIWaldoh: Kevin Roy*

I used to code. Now I  
ChatGPT.

# ✦ Production

---

**It is live.**

It is running on a vercel infrastructure on the subdomain: [amicus.semantic-labs.com](https://amicus.semantic-labs.com)

# ✦ Future Release

---

**To have a self-improving codebase**

The intention is to have the agents automatically submit improvements to pull requests as commits.



# The Future is Here

Give or take a few more hackathons...