



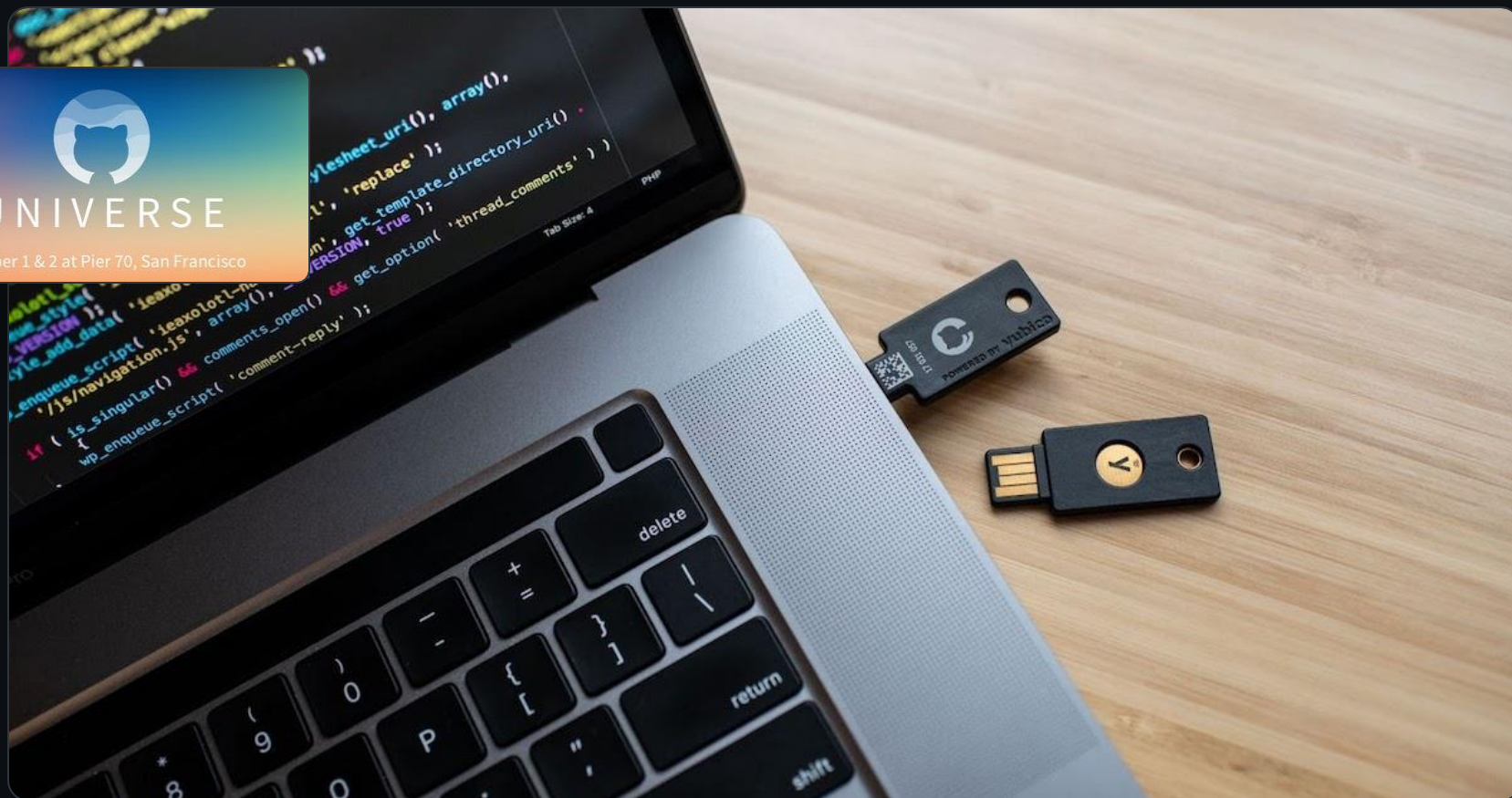
UNIVERSE

October 1 & 2 at Pier 70, San Francisco



UNIVERSE

October 1 & 2 at Pier 70, San Francisco

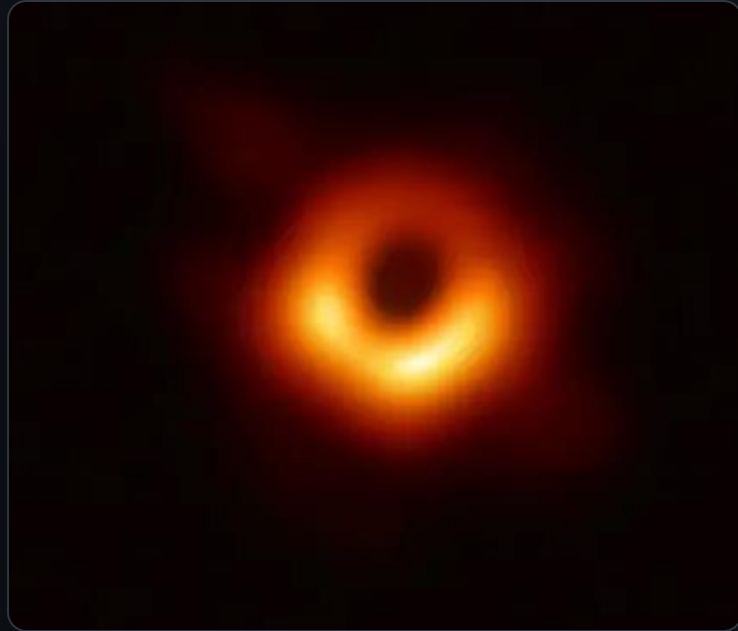


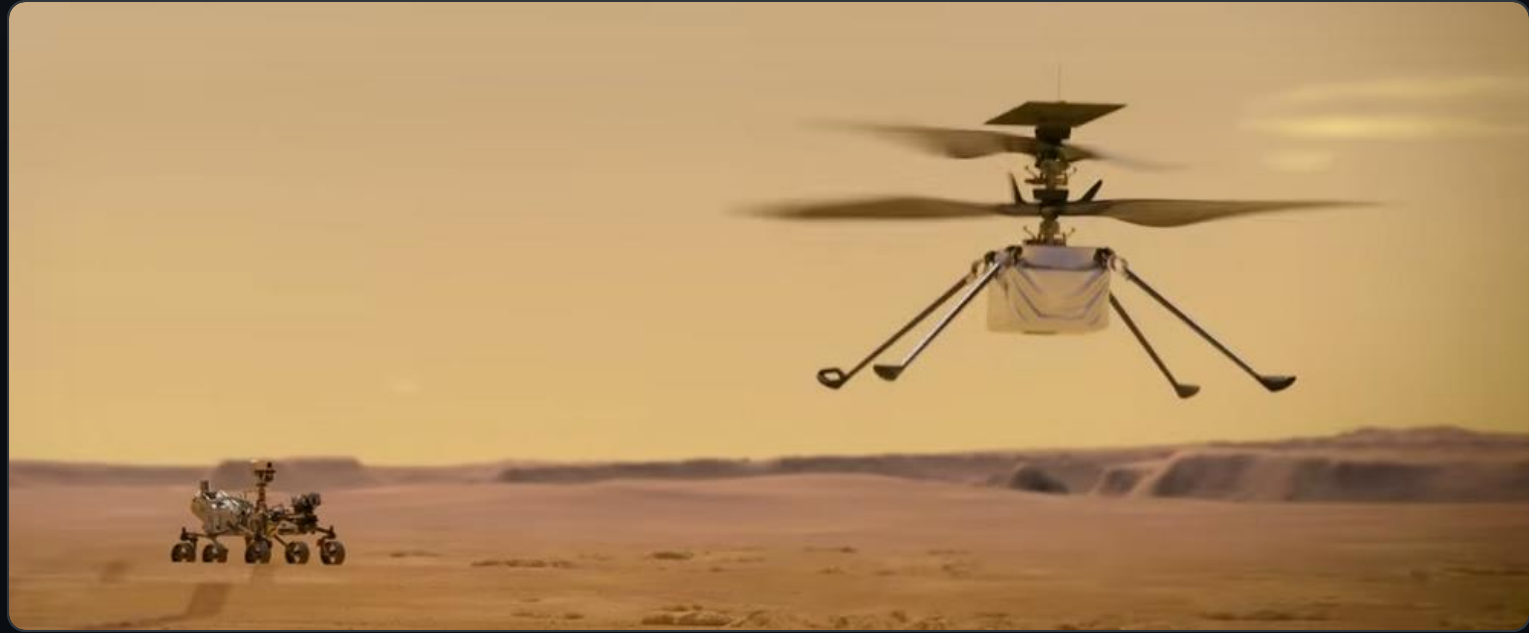


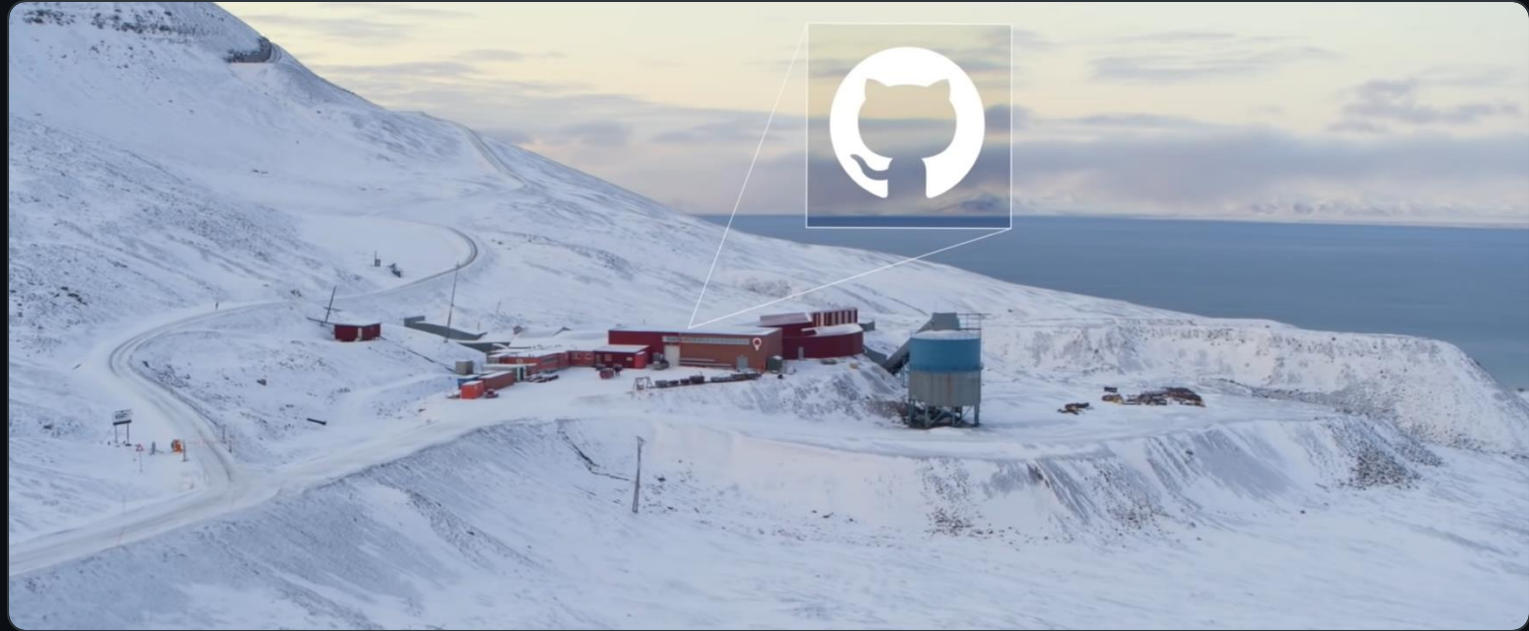
Oct 16-17, 2018 | Palace of Fine Arts, SF



**16 years of
dev innovation**







2015 - TODAY

67M+

GitHub Issues resolved



2015 - TODAY

180M+

Pull requests merged



2015 - TODAY

320M+

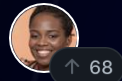
Public projects created



**Open source is the
greatest team sport
on Earth**



1 Billion Developers



Text Generation Inference

👤 4



Stable Diffusion

gpt4all



DragGAN



🔗 Merged



🔗 Open

❤️ 10

layout-parser



GPT Engineer



🔗 Ready

🚀 19

Detectron2



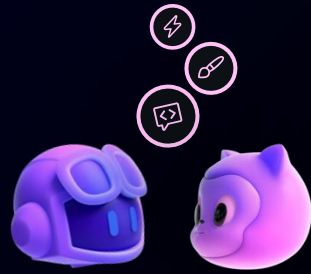
Flowise

Private GPT





**There is no single way
to be a developer today**



**AI is unlocking a
new world of creativity**



Age of AI
built by open source



The world's most widely adopted AI developer tool



```
GITHUB COPILOT: CHAT

GitHub Copilot

import unittest
import datetime

class TestParseExpenses(unittest.TestCase):
    def test_parse_expenses_with_valid_input(self):
        expenses_string = '2023-01-02 -34.01 USD\n2023-01-03 2.59 DKK\n2023-01-03 -2.72 EUR'
        expected_output = [(datetime.datetime(2023, 1, 2), -34.01, 'USD'), (datetime.datetime(2023, 1, 3), 2.59, 'DKK'), (datetime.datetime(2023, 1, 3), -2.72, 'EUR')]
        self.assertEqual(parse_expenses(expenses_string), expected_output)

    def test_parse_expenses_with_empty_input(self):
        expenses_string = ''
        expected_output = []
        self.assertEqual(parse_expenses(expenses_string), expected_output)

    def test_parse_expenses_with_comments(self):
        expenses_string = '# This is a comment\n2023-01-02 -34.01 USD\n2023-01-03 2.59 DKK\n2023-01-03 -2.72 EUR'
        expected_output = [(datetime.datetime(2023, 1, 2), -34.01, 'USD'), (datetime.datetime(2023, 1, 3), 2.59, 'DKK'), (datetime.datetime(2023, 1, 3), -2.72, 'EUR')]
        self.assertEqual(parse_expenses(expenses_string), expected_output)

if __name__ == '__main__':
    unittest.main()

The code assumes that the datetime module is imported. The test

parse_expenses.py x addresses.rb x sentiments.ts x

1 import datetime
2
3 def parse_expenses (expenses_string):
4     """Parse the list of expenses and return the list of triples (date, amount, currency)
5     Ignore lines starting with #.
6     Parse the date using datetime.
7     Example expenses_string:
8         2023-01-02 -34.01 USD
9         2023-01-03 2.59 DKK
10        2023-01-03 -2.72 EUR
11     """
12    expenses = []
13
14    for line in expenses_string.splitlines():
15        if line.startswith("#"):
16            continue
17        date, value, currency = line.split(" ")
18        expenses.append((datetime.datetime.strptime (date, "%Y-%m-%d"),
19                        float (value),
20                        currency))
21    return expenses
22
23 expenses_data = '''2023-01-02 -34.01 USD
24                 2023-01-03 2.59 DKK
25                 2023-01-03 -2.72 EUR'''
26
27
```



GitHub Copilot + OpenAI o1-preview & o1-mini

Multi-model



GitHub Copilot + Claude 3.5 Sonnet by Anthropic







Multi-model



GitHub Copilot + Gemini 1.5 Pro

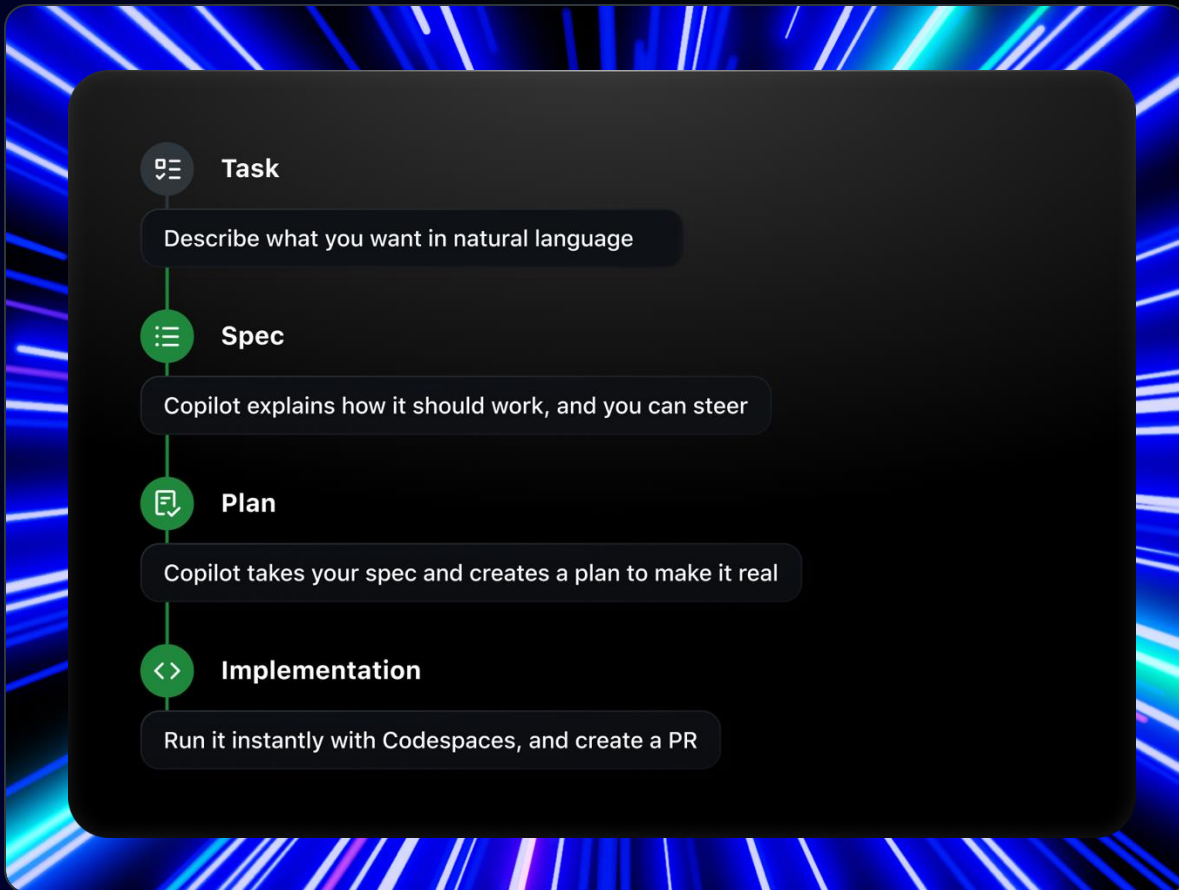
Multi-model

GitHub Models / Summer 2024

 <p>Phi-3.5-mini instruct (128K) Microsoft</p>	 <p>OpenAI GPT-4o OpenAI/Azure OpenAI Service</p>	 <p>Meta-Llama-3.1-405B-Instruct Meta</p>	 <p>Mistral Nemo Mistral</p>
 <p>Phi-3-medium instruct (128K) Microsoft</p>	 <p>OpenAI GPT-4o mini OpenAI/Azure OpenAI Service</p>	 <p>Meta-Llama-3.1-70B-Instruct Meta</p>	 <p>Mistral Large Mistral</p>
 <p>Phi-3-medium instruct (4K) Microsoft</p>	 <p>OpenAI Text Embedding 3 (large) OpenAI/Azure OpenAI Service</p>	 <p>Meta-Llama-3.1-8B-Instruct Meta</p>	 <p>Mistral Large (2407) Mistral</p>
 <p>Phi-3-mini instruct (128K) Microsoft</p>	 <p>OpenAI Text Embedding 3 (small) OpenAI/Azure OpenAI Service</p>	 <p>Meta-Llama-3-70B-Instruct Meta</p>	 <p>Mistral Small Mistral</p>
 <p>Phi-3-mini instruct (4K) Microsoft</p>	 <p>AI21-Jamba-Instruct AI21</p>	 <p>Meta-Llama-3-8B-Instruct Meta</p>	
 <p>Phi-3-small instruct (128K) Microsoft</p>		 <p>Cohere Command R+ 08-2024 Cohere</p>	
 <p>Phi-3-small instruct (8K) Microsoft</p>		 <p>Cohere Command R 08-2024 Cohere</p>	

Multi-model Copilot has arrived





Copilot Workspace


**AI-native IDE, designed
for everyday tasks**


 **GitHub Copilot Workspace**

The next iteration

 Brainstorm agent


 VS Code extension


 Pull request review

 Custom instructions

 Commands

 Build & repair agent
















 Multi-modal

 GitHub Actions

Automate your workflow from idea to production

45,167 workflow runs

Event ▾ Status ▾ Branch ▾ Actor ▾

- | | |
|---|--|
|  Fix IE12 incompatibilities |  1 hour ago |
| Build, test and deploy #15078: pull request #239122 synchronize by mona |  5m 40s |
|  Accessibility tests |  1 hour ago |
| Build, test and deploy #15078: pull request #239122 synchronize by mona |  5m 40s |
|  Update changelog and release notes |  1 hour ago |
| Build, test and deploy #15078: pull request #239122 synchronize by mona |  5m 40s |
|  Migrate to latest Storybook |  1 hour ago |
| Build, test and deploy #15078: pull request #239122 synchronize by mona |  5m 40s |
|  Fix IE11 incompatibilities |  1 hour ago |
| Build, test and deploy #15078: pull request #239122 synchronize by mona |  5m 40s |

OctoArcade Invaders



Feature planning ▾ By area 🔍 Current sprint

Title	Area	Status	Assignee	Sub-issue progress	+
▼ ● Prototype 🛠️ 3					
1 ✓ Game brief and go-no-go	Producers 🗣️	Complete ✓	preciselyalys	<div style="width: 85%;"></div> 85%	
2 ✓ Engine prototype (physics, rendering)	Engine ⚙️	Complete ✓	mariorod and pm	<div style="width: 24%;"></div> 24%	
3 ✓ Initial concept art	Art 🎨	Complete ✓	pmarsceill		
+ Add item					
▼ ● Beta 🌱 5					
4 🔄 Integrate with Leaderboard Service	Game Loop 📈	Not Started ⬜	chiedo	<div style="width: 54%;"></div> 54%	
5 🔄 Creative design update to aliens for variety	Art 🎨	Planning 📅	ajashams		
6 🔄 Updates to alien, beam, bomb and cannon sprites	Art 🎨	Building 🏗️	ashygee	<div style="width: 10%;"></div> 10%	
7 🔄 Update to colision logic	Engine ⚙️	Building 🏗️	ohiosveryown	<div style="width: 75%;"></div> 75%	
8 🔄 Improve alien respawn rate	Game Loop 📈	Behind 🚩	mattjohnlee		
+ Add item					
▼ ● Launch 🚀 4					
9 🔄 Interviews with media outlets	Producers 🗣️	Not Started ⬜	mariorod	<div style="width: 33%;"></div> 33%	




45,167 workflow runs

Event ▾ Status ▾ Branch ▾ Actor ▾


- ✓ **Fix IE12 incompatibilities** 1 hour ago
Build, test and deploy #15078: pull request #239122 synchronize by mona 5m 40s
- ✓ **Accessibility tests** 1 hour ago
Build, test and deploy #15078: pull request #239122 synchronize by mona 5m 40s
- ✓ **Update changelog and release notes** 1 hour ago
Build, test and deploy #15078: pull request #239122 synchronize by mona 5m 40s
- ✓ **Migrate to latest Storybook** 1 hour ago
Build, test and deploy #15078: pull request #239122 synchronize by mona 5m 40s
- ✓ **Fix IE11 incompatibilities** 1 hour ago
Build, test and deploy #15078: pull request #239122 synchronize by mona 5m 40s



 github-advanced-security bot

The vulnerability in the code is due to the fact that user-provided input is directly used in HTTP response without any sanitization. This can lead to a cross-site scripting (XSS) attack if the user input contains malicious scripts.

To fix this, we need to sanitize the input before using it in the HTTP response. One way to do this is to use the `escape-html` library, which can escape any special characters.

 Copilot Autofix AI

```
14     app.get('/', (req, res) => {  
15 | -     res.send `Hello ${req.query.name}!`;  
15 | +     res.send `Hello ${escape(req.query.name)}!`;  
16     }  
17 }
```

 Copilot Autofix

Apply fixes in seconds

Spend less time fixing vulnerabilities and
more time building features

Copilot Autofix & Copilot Secret Scanning

Found means fixed

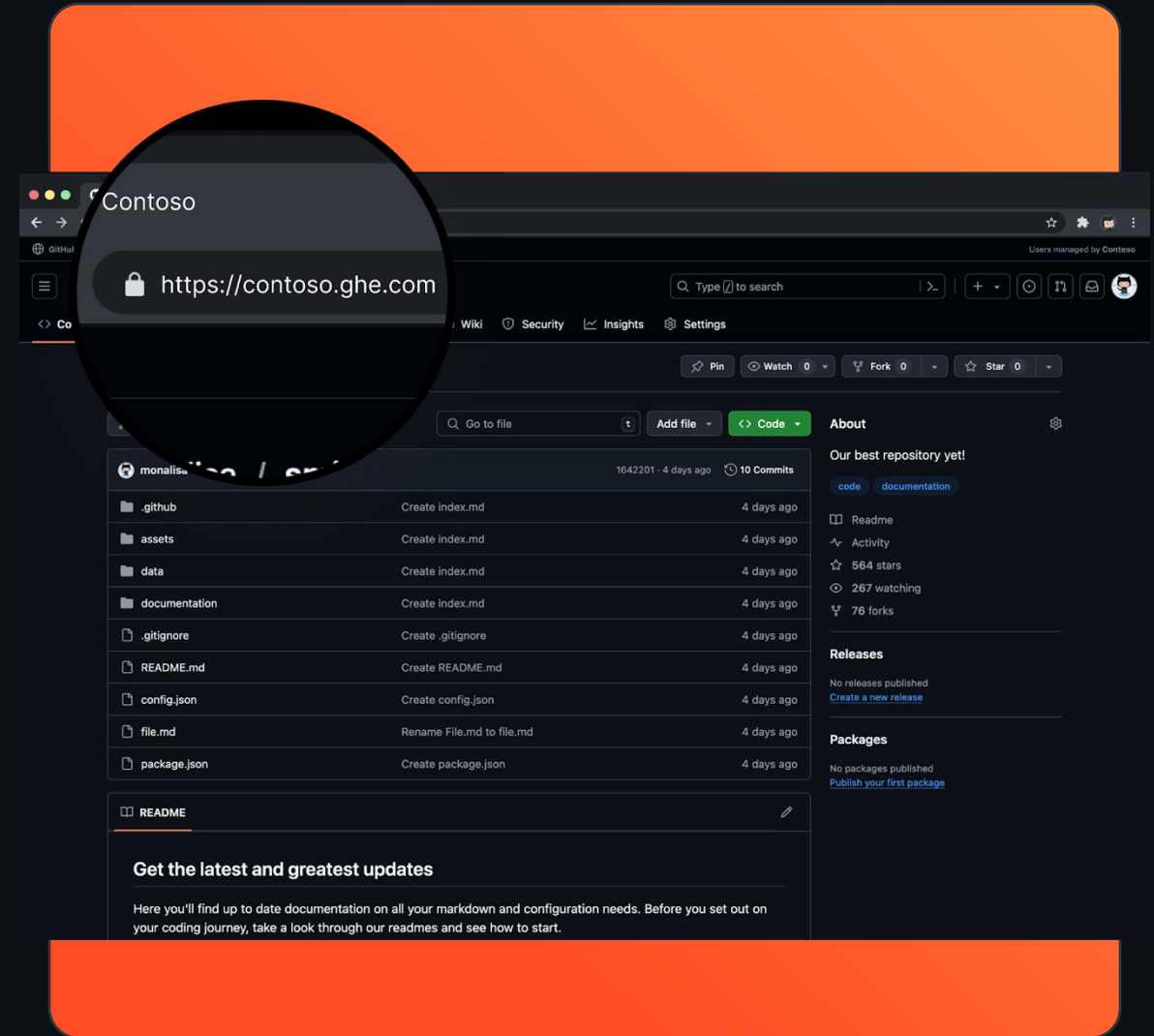


General Availability

GitHub Enterprise Cloud

Introducing GitHub Enterprise Cloud with EU Data Residency—store your code and repository data in your preferred region within the European Union

Enhance control over your data, meet compliance requirements, and accelerate development with a secure, scalable SaaS solution.

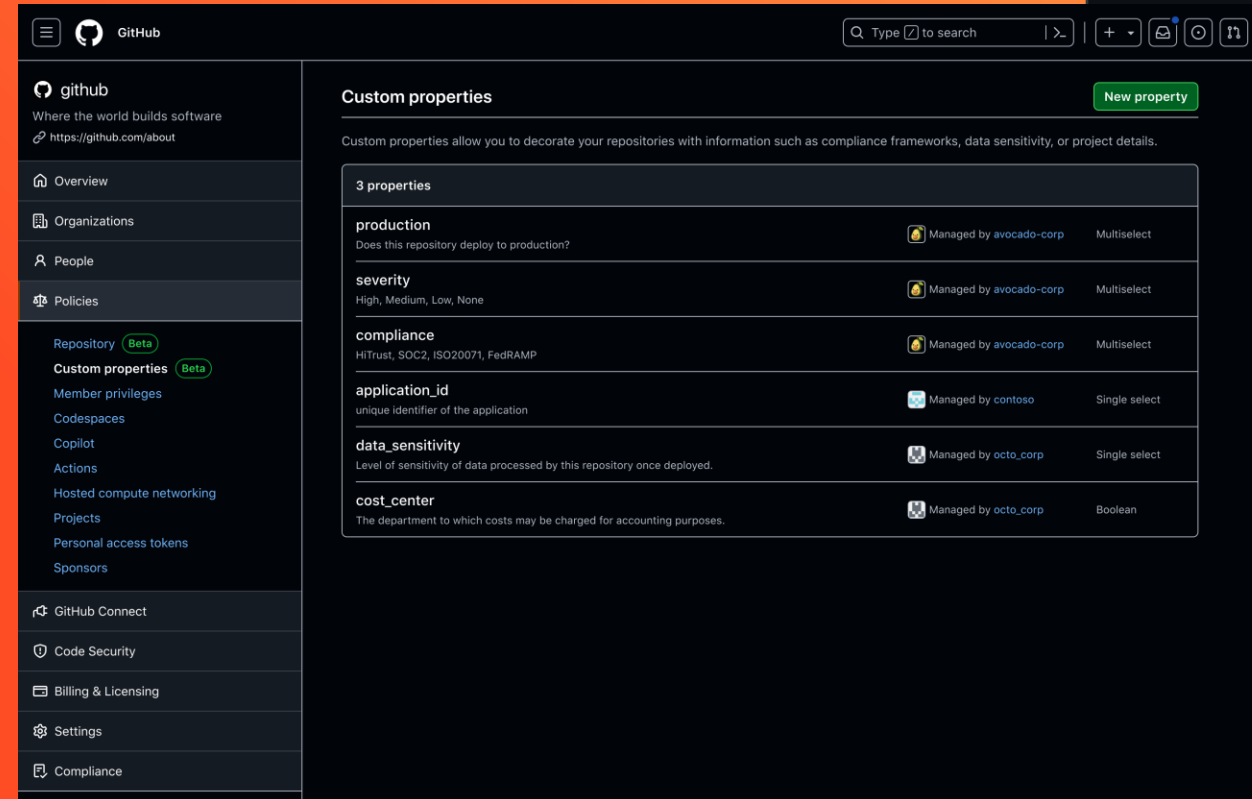


Various Stages

Empowering Enterprise Governance and Administration

Introducing new features that enhance governance, control, and management for enterprise and organization admins.

Streamline administration, enforce security policies, and scale management across your GitHub Enterprise environment.



Public Preview

Enhancing Actions Security with Immutable, Versioned Packages

Publish and consume GitHub Actions as immutable, securely versioned packages

Enhance CI/CD supply chain security with predictable, unalterable workflows, ensuring greater trust and compliance.

The screenshot shows the GitHub Actions marketplace page for the 'setup-node' action, version 4.0.4. The page is dark-themed and features a navigation bar at the top with options like Code, Issues (54), Pull requests (27), Actions, Projects, Security, and Insights. The main content area is divided into several sections:

- Header:** 'setup-node 4.0.4' with labels 'Immutable', 'Public', and 'Latest'.
- Code Snippet:** A box containing the basic action configuration:

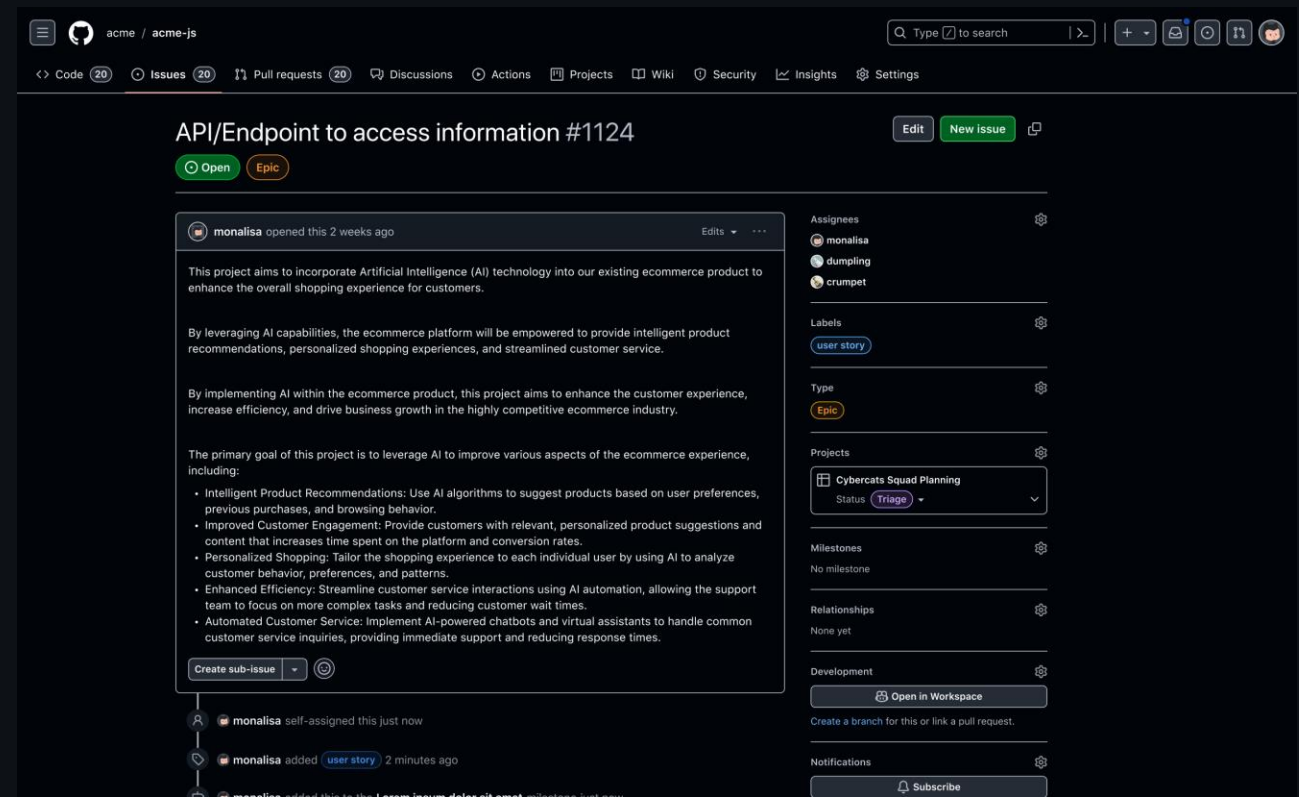
```
- name: Setup Node
  uses: actions/setup-node@4.0.4
```
- README.md:** A section titled 'setup-node' with a 'Basic validation passing' badge. It describes the action's functionality for GitHub Actions users, including optional downloading and caching of Node.js versions, caching of dependencies, and configuring authentication for GPR or npm.
- Usage:** A section titled 'Usage' with a link to 'See action.yml'. It contains a detailed code snippet for the 'uses' field in an action.yml file, including comments about version specifications, aliases, and options like 'check-latest' and 'architecture'.
- Details:** A sidebar on the right containing information about the action's creator (actions, Verified creator), license (MIT License), stars (3.9k), and version history (4.0.4, 4.0.3).

Public Preview

GitHub Issues 2.0

Introducing advanced features in GitHub issues to improve organization, collaboration, and efficiency

Streamline project management with sub-issues, issue types, advanced search, and increased project limits



Public Preview

Arm64 Hosted Runners for OSS

Bring power, performance, and sustainability to your CI/CD workflows with Arm64 hosted runners on Linux and Windows

Open source and individual developers can now use their included Actions minutes to build and deploy on Arm architecture without the need for self-hosting.

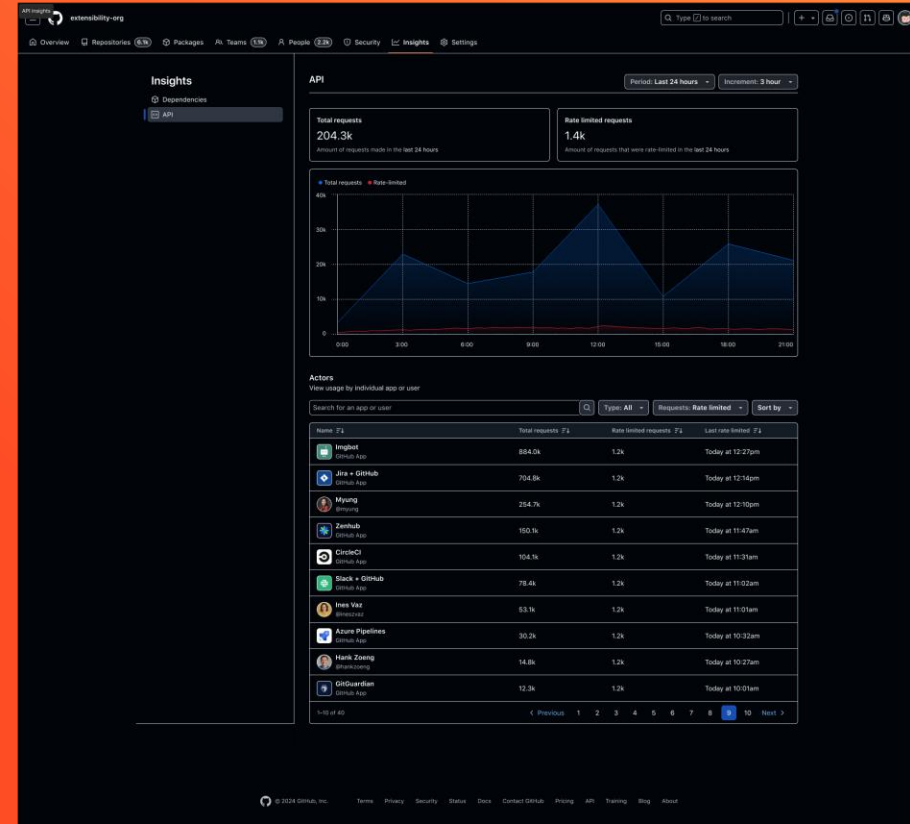
The word "arm" is displayed in a large, lowercase, blue, sans-serif font. The letters are bold and have a consistent thickness. The 'a' is a simple circle, the 'r' has a small hook, and the 'm' has two vertical stems. The entire word is centered horizontally in the right half of the image.

Public Preview // Private Preview

API Insights & Actions Performance Metrics

Enhance operational transparency and optimize performance with new insights into your API usage and CI/CD workflows.

Monitor API activity to resolve rate-limiting issues and analyze workflow performance to streamline processes and accelerate software delivery.

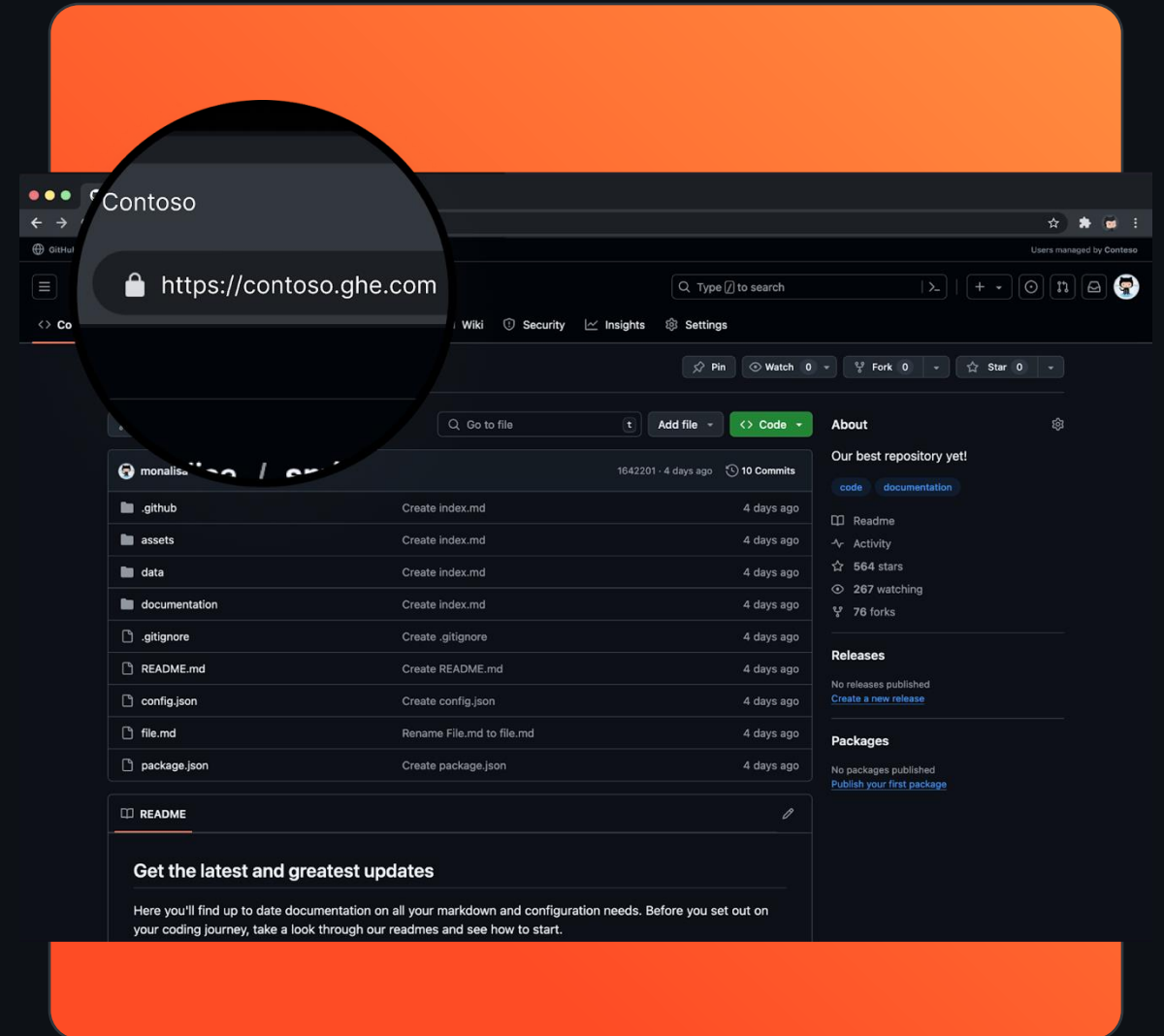


General Availability

GitHub Enterprise Cloud with Data Residency

Enhance control over your data, meet compliance requirements, and accelerate development with a secure, scalable SaaS solution.

Available in the European Union now, with additional data residency regions to come.

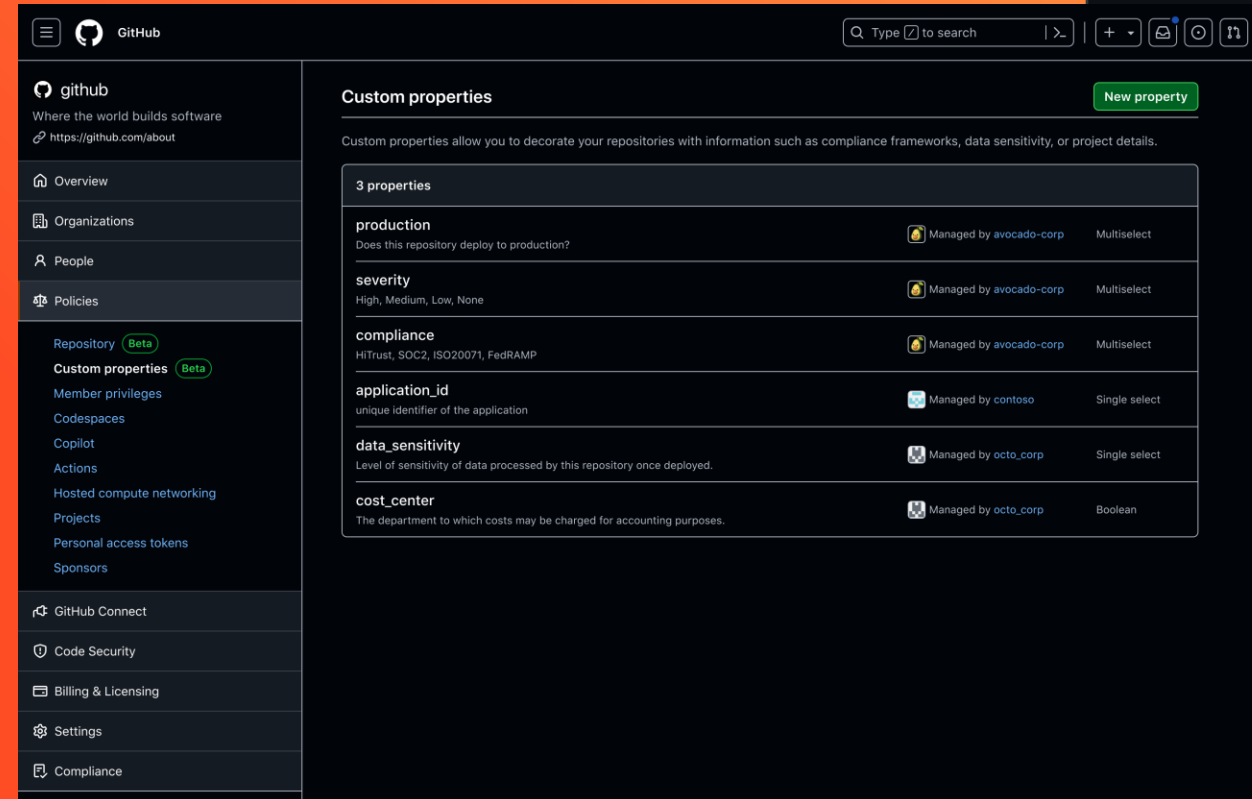


Various Stages

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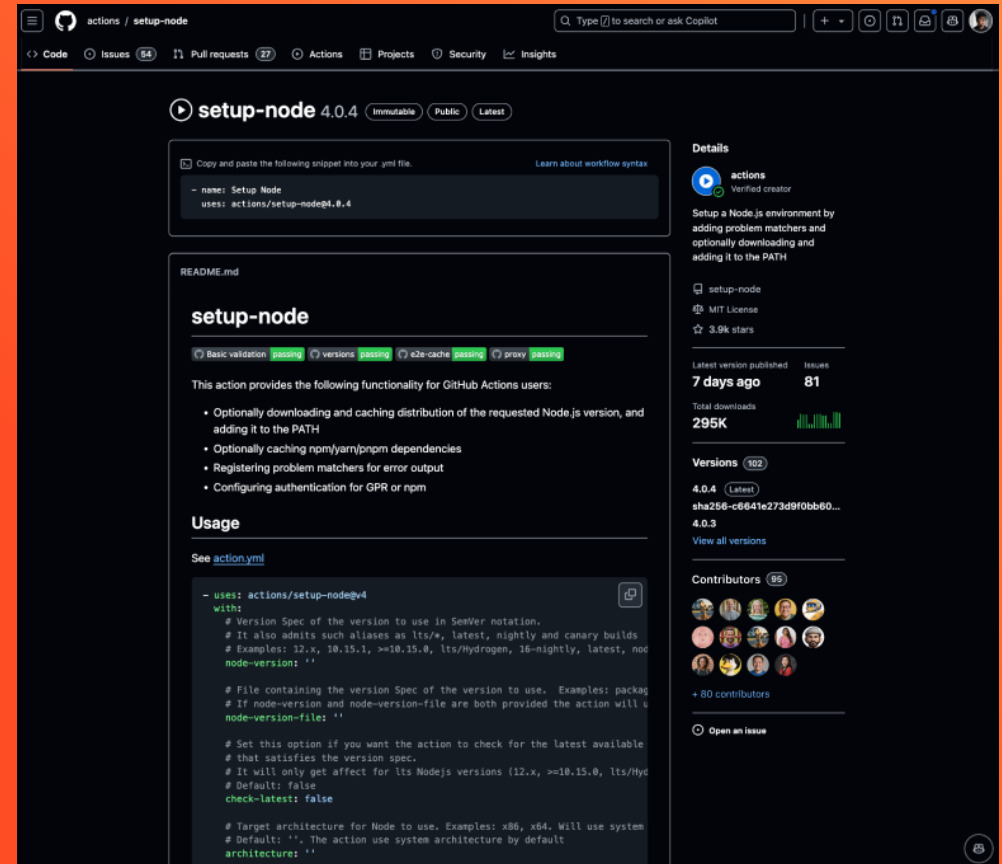


Public Preview

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Publish and consume GitHub Actions as immutable, securely versioned packages

Enhance CI/CD supply chain security with predictable, unalterable workflows, ensuring greater trust and compliance.



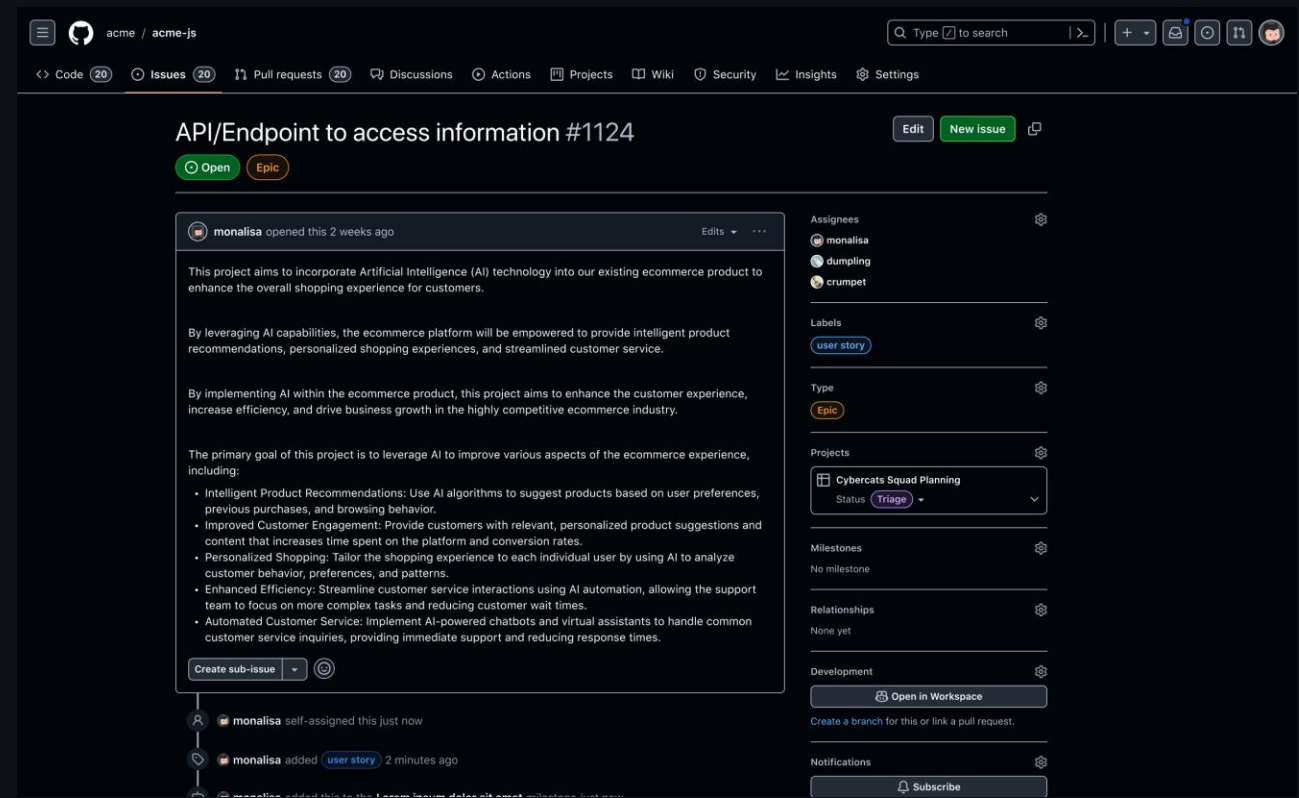
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Public Preview

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Public Preview // Private Preview

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