

VS Code Dev Days

São Paulo

Sábado, 27/09/2025

FIAP – São Paulo-SP



```
# Functionality for Hiking Journal
## Basic functionality
- Add an entry
- view previous entries
## For individual entries we need to:
- add title
- add date
- add description
- attach map or photos
## Things to investigate
- adding in maps that aren't static images
- stylizing the maps
```

VS Code Dev Days

VS Code: The Open Source AI Code Editor

Essential Techniques for GitHub Copilot in VS Code



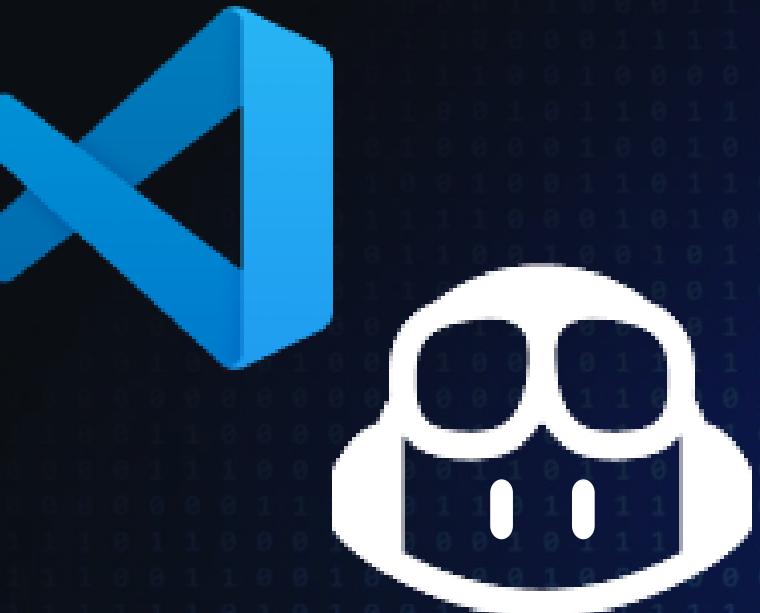
Agenda

01 Introduction to VS Code

02 Open source AI Editor

03 Latest AI Features

04 Q&A





Visual Studio Family

50+ million monthly
active developers



GitHub

150 million developers
worldwide

hiking-journal

EXPLORER

HIKING-JOURNAL

- docs
- functionality.md
- journal-entries
- website
- index.html
- styles.css

functionality.md index.html styles.css

```
1 <!DOCTYPE html>
2 <html lang="en">
3   <head>
4     <meta charset="UTF-8">
5     <meta name="viewport" content="width=device-width, initial-scale=1.0">
6     <title>Hiking Journal</title>
7     <link rel="stylesheet" href="styles.css">
8     <link rel="preconnect" href="https://fonts.googleapis.com">
9     <link rel="preconnect" href="https://fonts.gstatic.com" crossorigin="anonymous">
10    <link href="https://fonts.googleapis.com/css2?family=PT+Serif:wght@normal&family=Merriweather:wght@normal&family=Ubuntu:wght@normal" rel="stylesheet">
11  </head>
12  <body>
13    <main>
14      <header>
15        <h1>Hiking journal</h1>
16        <button class="add-button" aria-label="Add new entry">
17          <svg width="24" height="24" viewBox="0 0 24 24" fill="none" stroke="currentColor" stroke-width="2" stroke-linecap="round" stroke-linejoin="round">
18            <path d="M12 5V19M5 12H19" stroke="currentColor" stroke-width="2" stroke-linecap="round" stroke-linejoin="round"/>
19          </svg>
20        </button>
21      </header>
22
23      <article class="journal-entry">
24        <div class="entry-header">
25          <div class="meta-info">
26            <span class="date">March 10, 2025</span>
27            <span class="separator">|</span>
28            <span class="location">2201 Imola Ave. Napa, CA 94559</span>
29          </div>
30          <h2>Morning hike at Skyline Wilderness Park</h2>
31        </div>
32        <p>For my hike this morning I did the Skyline Trail and Manzanita Creek. The weather was perfect for a morning hike. The views were amazing!</p>
33        
34      </article>
35    </main>
36  </body>
37 </html>
```

CHAT

collection to make the font styles.

I'll help you create the landing page based on the Figma design. Let me first check the Figma design and then create the necessary files.

> Ran `get_Figma_data`

1. Create basic file structure
2. Set up CSS variables for theming and typography
3. Create HTML structure
4. Style components using CSS
5. Add interactive elements

Let me first check the existing file structure in the website folder:

✓ Read `website`

I see the website folder is empty, so I'll create the necessary files. Let me start implementing the landing page based on the Figma design:

index.html +37 -1

2 file changed

index.html
styles.css

Add Context...
Ask Copilot or type / for commands
Agent ▾ Claude 3.7 Sonnet ▾

Code with extensions

Customize VS Code with AI-powered functionality from extensions and Model Context Protocol servers to use in Chat. Or, build your own extension to power your team's unique scenarios.



Python

Adds rich language support for Python



Stripe

Build, test, and use Stripe inside your editor



C/C++

Adds rich language support for C/C++



Jupyter

Language support for Jupyter Notebooks



GitLens

Supercharge your Git experience



C# Dev Kit

Powerful tools for your C# environment



MongoDB

Extension for the @MongoDB agent



GitHub Copilot for Azure

Streamline the process of developing for Azure



Remote Development

Open folders in a container on a remote machine

View 75k+ extensions in the [Extension Marketplace](#)

Code in any language

VS Code supports almost every major programming language. Several ship in the box, like JavaScript, TypeScript, CSS, and HTML, but extensions for others can be found in the VS Code Marketplace.

JS JavaScript

C# C#

J Java

 Markdown

TS TypeScript

C+ C++

{} JSON

> Powershell

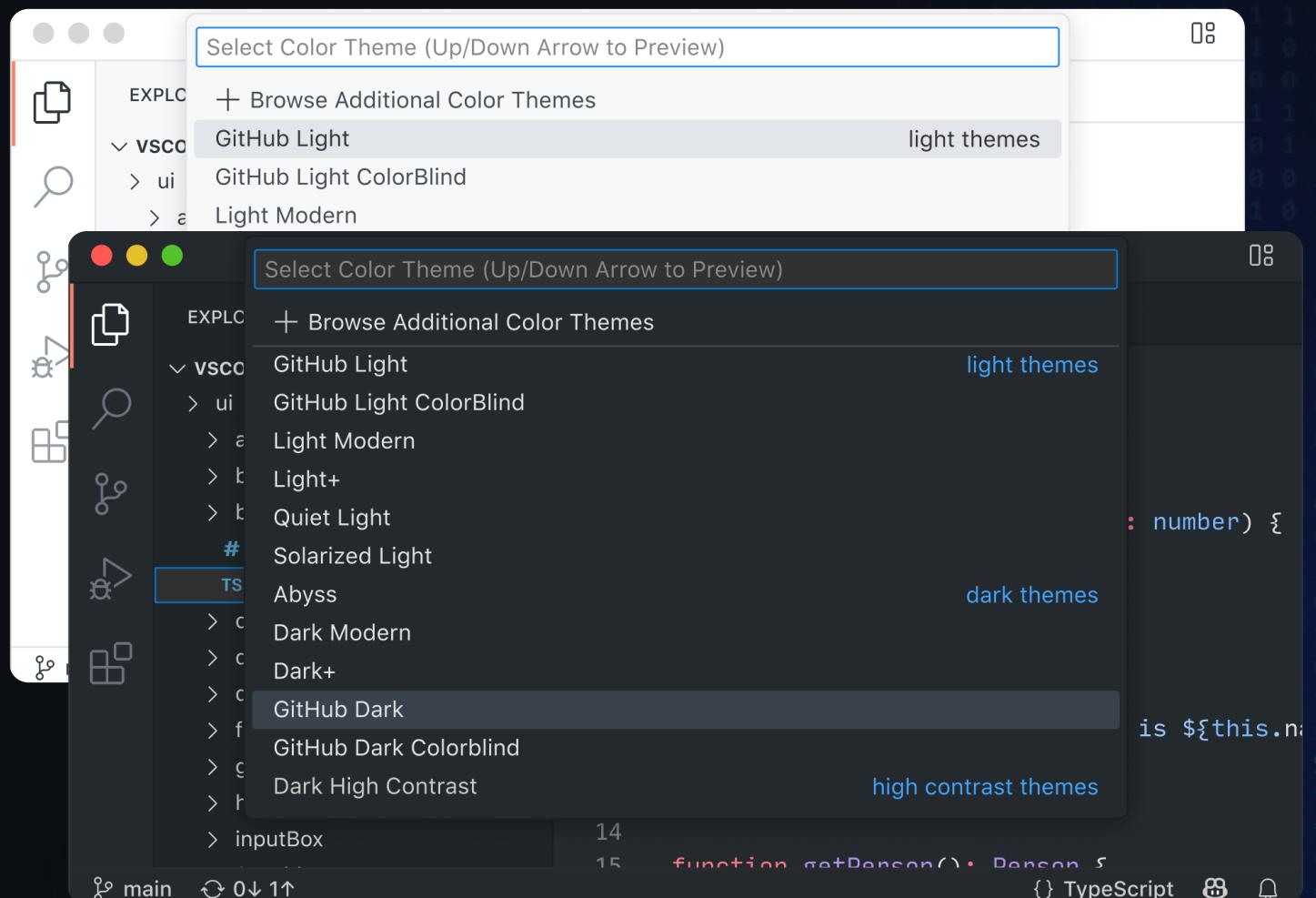
Fully customizable

Customize your VS Code UI and layout so that it fits your coding style.

Color themes let you modify the colors in VS Code's user interface to suit your preferences and work environment.

Settings Sync enables you to share your user settings across your VS Code instances with the Settings Sync feature.

Profiles let you create sets of customizations and quickly switch between them or share them with others.

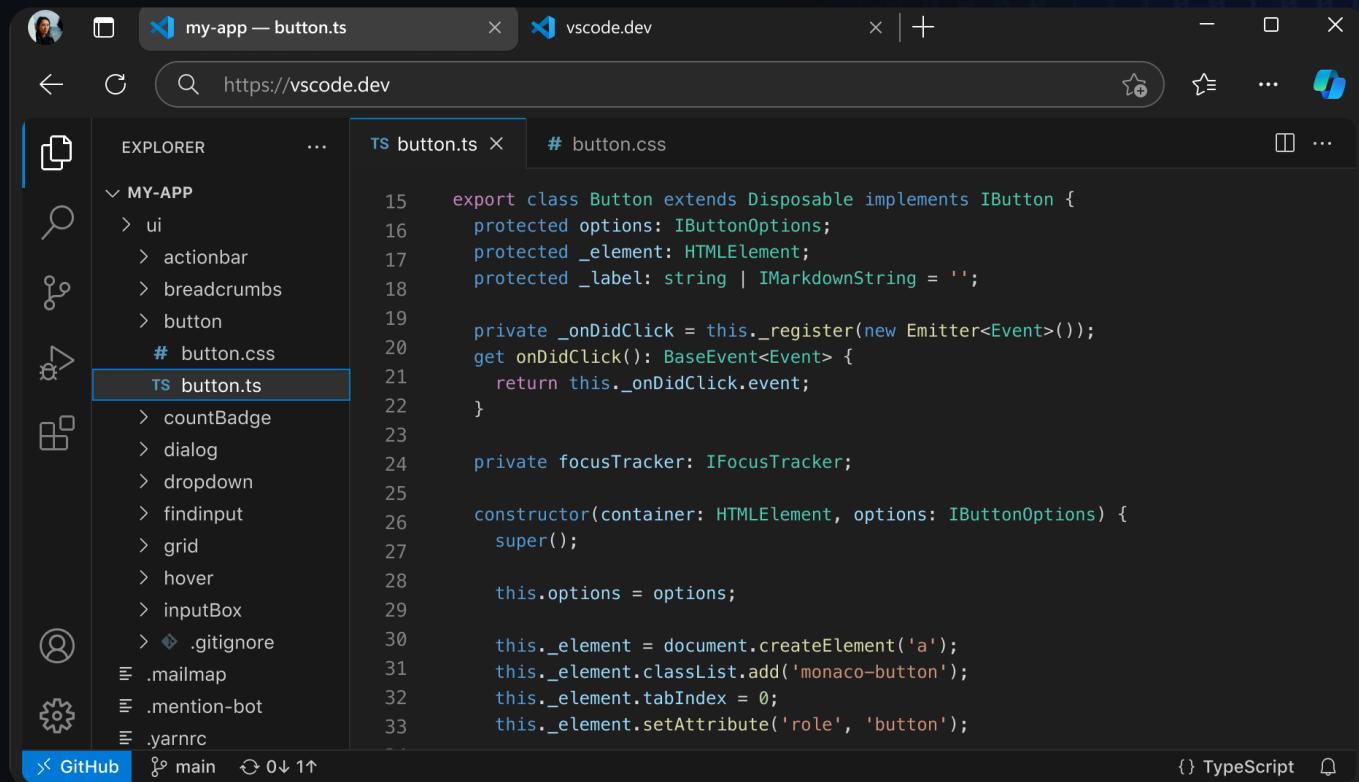


Code anywhere

Code wherever you're most productive, whether you're connected to the cloud, a remote repository, or in the browser with VS Code for the Web (vscode.dev).

Built-in Source Control empowers you with Git support out-of-the-box. Many other source control providers are available through extensions.

GitHub Codespaces provides cloud-powered development environments for any activity - whether it's a long-term project, or a short-term task like reviewing a pull request.



The screenshot shows the VS Code for the Web interface running in a browser tab. The title bar indicates the tab is for 'my-app — button.ts'. The browser address bar shows the URL 'https://vscode.dev'. The interface includes a dark-themed Explorer sidebar on the left with a tree view of a 'MY-APP' folder containing various UI components like ui, actionbar, breadcrumbs, button, etc., with 'button.css' and 'button.ts' selected. The main workspace shows two tabs: 'button.ts' (TypeScript) and '# button.css'. The 'button.ts' tab contains the following TypeScript code:

```
15  export class Button extends Disposable implements IButton {
16    protected options: IButtonOptions;
17    protected _element: HTMLElement;
18    protected _label: string | IMarkdownString = '';
19
20    private _onDidClick = this._register(new Emitter<Event>());
21    get onDidClick(): BaseEvent<Event> {
22      return this._onDidClick.event;
23    }
24
25    private focusTracker: IFocusTracker;
26
27    constructor(container: HTMLElement, options: IButtonOptions) {
28      super();
29
29      this.options = options;
30
31      this._element = document.createElement('a');
32      this._element.classList.add('monaco-button');
33      this._element.tabIndex = 0;
34      this._element.setAttribute('role', 'button');
```

The bottom right corner of the interface shows a 'TypeScript' status indicator.

Code with rich features

There's a lot more to an editor. Whether it's using built-in features or rich extensions, there's something for everyone.



Integrated terminal

Use your favorite shell whether it's zsh, pwsh, or git bash, all inside the editor.



Run code

Run and debug your code without leaving your editor.



Version control

Built-in support for git and many other source control providers.



Build tasks

Run tools and analyze their results from within VS Code.



Local history

Never lose your changes with automatically tracked local history.



Themes

Your theme is an extension of your personality. Add some flair to your editor and add your touch.



Accessibility

Optimized experience for screen readers, high contrast themes, and keyboard-only navigation.



Web support

Whether you are on your phone, tablet, or desktop, you can access your code from anywhere.

The open source
AI code editor

Agent Mode

Tackle complex, multi-step tasks. Agent mode reads your codebase, suggests edits across files, runs terminal commands, and responds to compile or test failures — all in a loop until the job is done. Further refine agent mode to fit your team's workflows with VS Code extensions and Model Context Protocol (MCP) servers.

CHAT

Kenzi.lawson

What are my open issues?

GitHub Copilot

Let me check for any open issues in your repository.

> Ran `list_issues`

You have 1 open issues in your repository:

- Issue #4: "Create detailed flow for adding new journal entries to the app"
 - Created on March 21, 2025
 - Assigned to you
 - Description: Create a detailed user flow exploring all the options for adding a new journal entry.

Ask Copilot or type / for commands

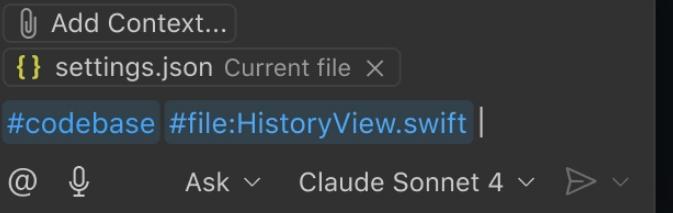
8 Add Context...

Agent ▾ Claude Sonnet 4 ▾

```
1 import Image fr
2 import Link fro
3 import { Descri
4
5 interface Projec
6   title: string
7   description:
8   images: string
9   link: string;
10 }
11
12 const Project:
13   title,
14   description,
15   images,
16   link,
17 ) => {
18   return (
19     <div classN
20       <Descript
21       { images.
```

Claude Sonnet 4 ▶

- Claude Sonnet 3.7
 - ✓ Claude Sonnet 4
 - Gemini 2.5 Pro
 - GPT-4.1
-
- Manage Models...



```
1 "github.copilot.chat.codeGeneration.instructions":  
2 [  
3   {  
4     "text": "Use React functional components."  
5   },  
6   {  
7     // Import instructions from file  
8     "file": "code-style.md"  
9   }  
10 ],
```

Any model for any team

Use AI models like Claude Sonnet out of the box, or bring your own key to access models from Azure, Anthropic, Google, Ollama, OpenAI, and OpenRouter.

An expert on your codebase

Your codebase is indexed locally and remotely (on GitHub) to understand what's relevant, enabling fast, context-aware interactions.

AI that works the way you do

Personalize interactions using custom instructions and reusable prompt files tailored to your workflows, tools, and projects.

Next edit suggestions

VS Code predicts your next move as you code. Use the Tab key to accept AI-powered suggestions right in your editor. It intelligently recommends what to change — and where — based on the edits you're already making.

A screenshot of the VS Code interface showing a tooltip for 'Copilot Next Edit Suggestion'. The tooltip contains three options: 'Go To / Accept' (Tab key), 'Reject' (Escape key), and 'Settings'. Below the tooltip, the code editor shows a snippet of TypeScript code for 'post.js' and 'timeline.js'. The code includes imports for 'fetch', 'readableCount', and 'useEffect'. It defines a 'post' constant and a 'render' function that returns an HTML string. The tooltip highlights a section of the code within a green box, showing suggestions for 'Comments:' and 'Likes:'.

```
60 const post = await postData.json();
61
62 function render() {
63   return html`<div class="post">
64   <div>
65     <${post.header}>
66     ${post.avatarUrl}" alt="Avatar" />
67     ${post.createdAt}</p>
68   <div>
69     <${post.content}>
70     ${post.content}</p>
71   </div>
72 </div>
73 `;
74 }
75 }
```

Copilot Next Edit Suggestion

- Go To / Accept Tab
- × Reject Escape
- ⚙️ Settings

```
<div class="post-metrics">
  <p>Comments: ${readableCount(post.commentCount)}</p>
  <p>Likes: ${readableCount(post.likesCount)}</p>
</div>
```

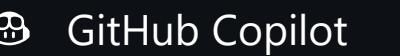
TS button.ts

```
1
2
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13
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15
16
```

A screenshot of a code editor interface. At the top, it says "TS button.ts". Below that is a code editor window with the following text:

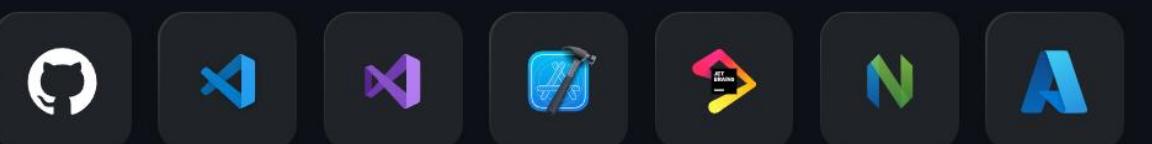
```
1
2
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6
7
8
9
10
11
12
13
14
15
16
```

Below the code editor is a floating UI overlay with a blue header bar containing a file icon and a close button. It has two buttons at the bottom: "Accept" (blue) and "Discard" (grey), and a circular refresh icon to the right of the "Discard" button.



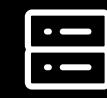
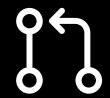
Your AI pair programmer

- ✓ Real time code suggestions
- ✓ Comments to code
- ✓ Next edit suggestions
- ✓ Improved gpt4o-copilot model
- ✓ GitHub Copilot Chat & Edits
- ✓ Inline chat commands
- ✓ Agent mode



the new command center... |

Agentic layer

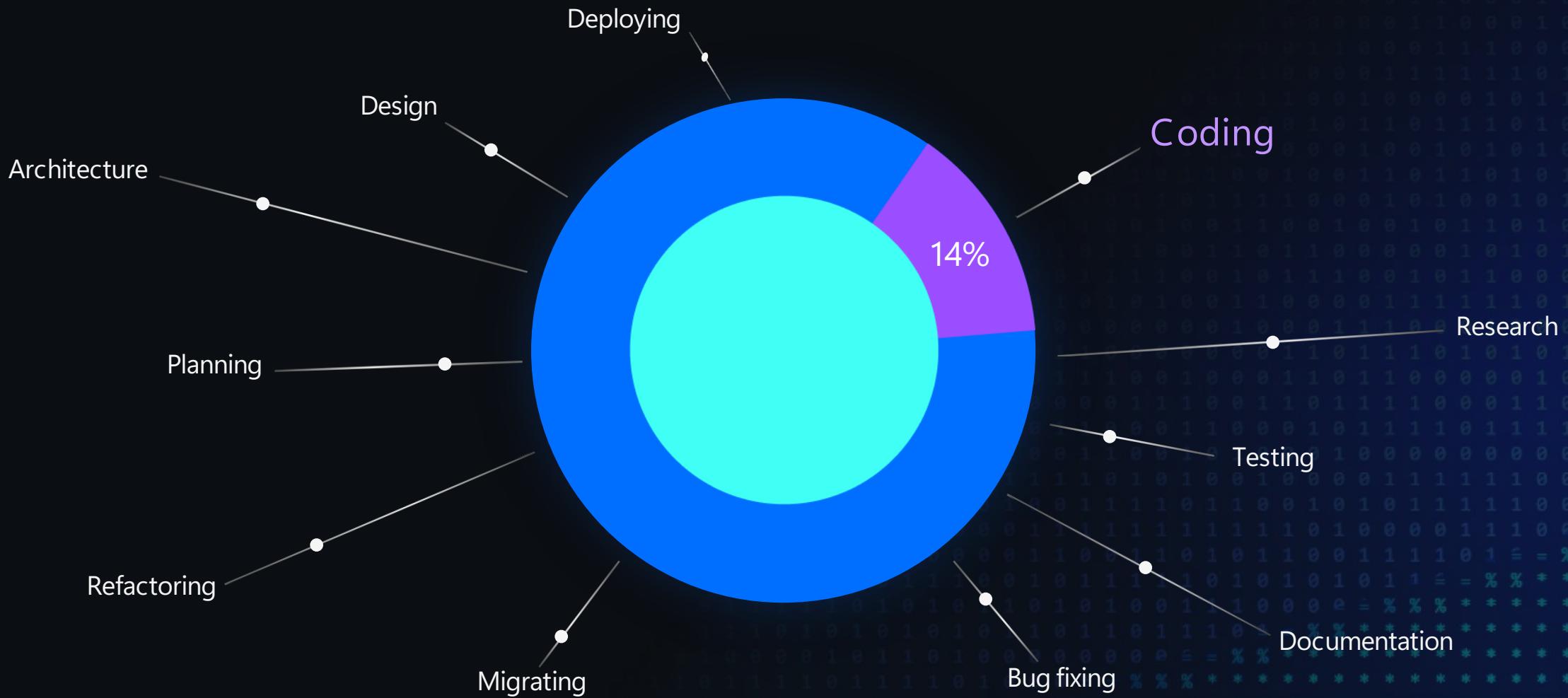


Create

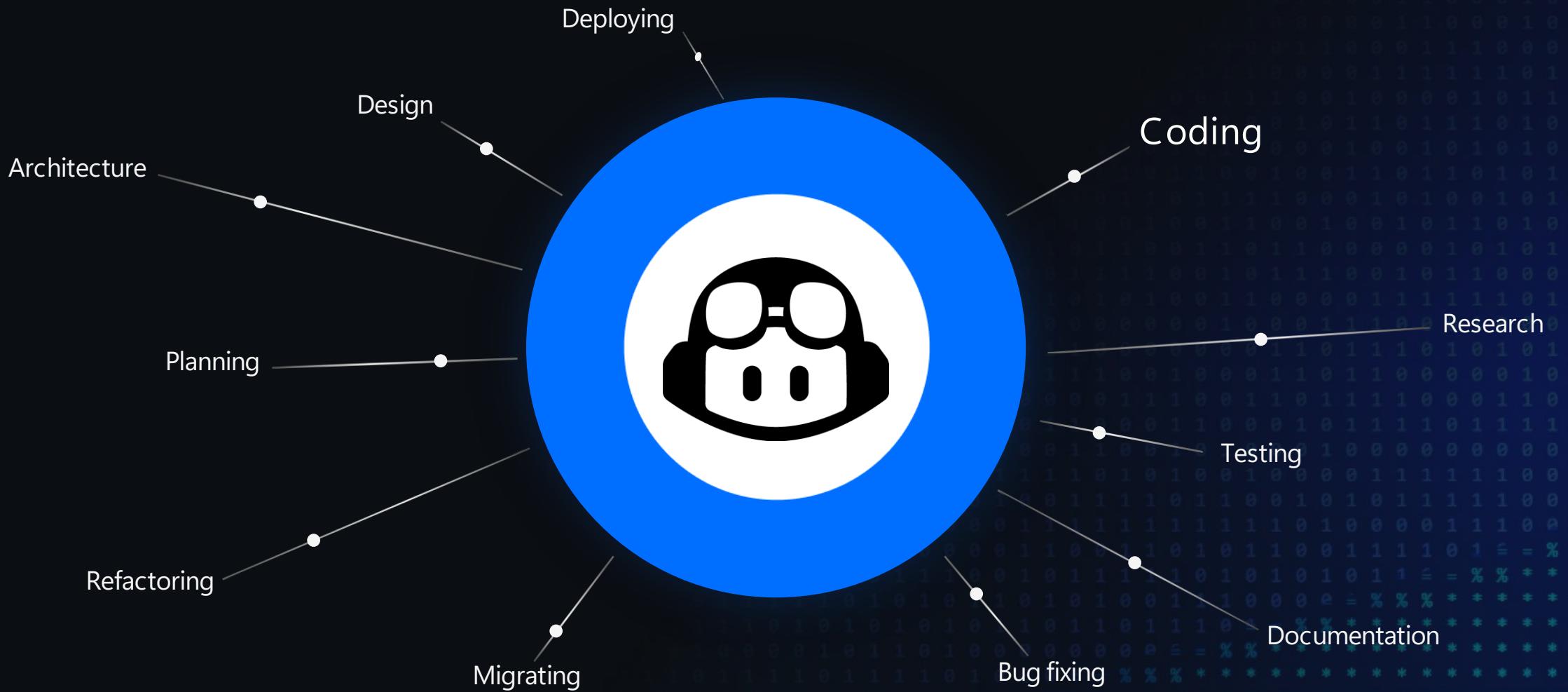
Collaborate

Operate

Developers spend only a fraction of their time writing new code



GitHub Copilot can help you with everything



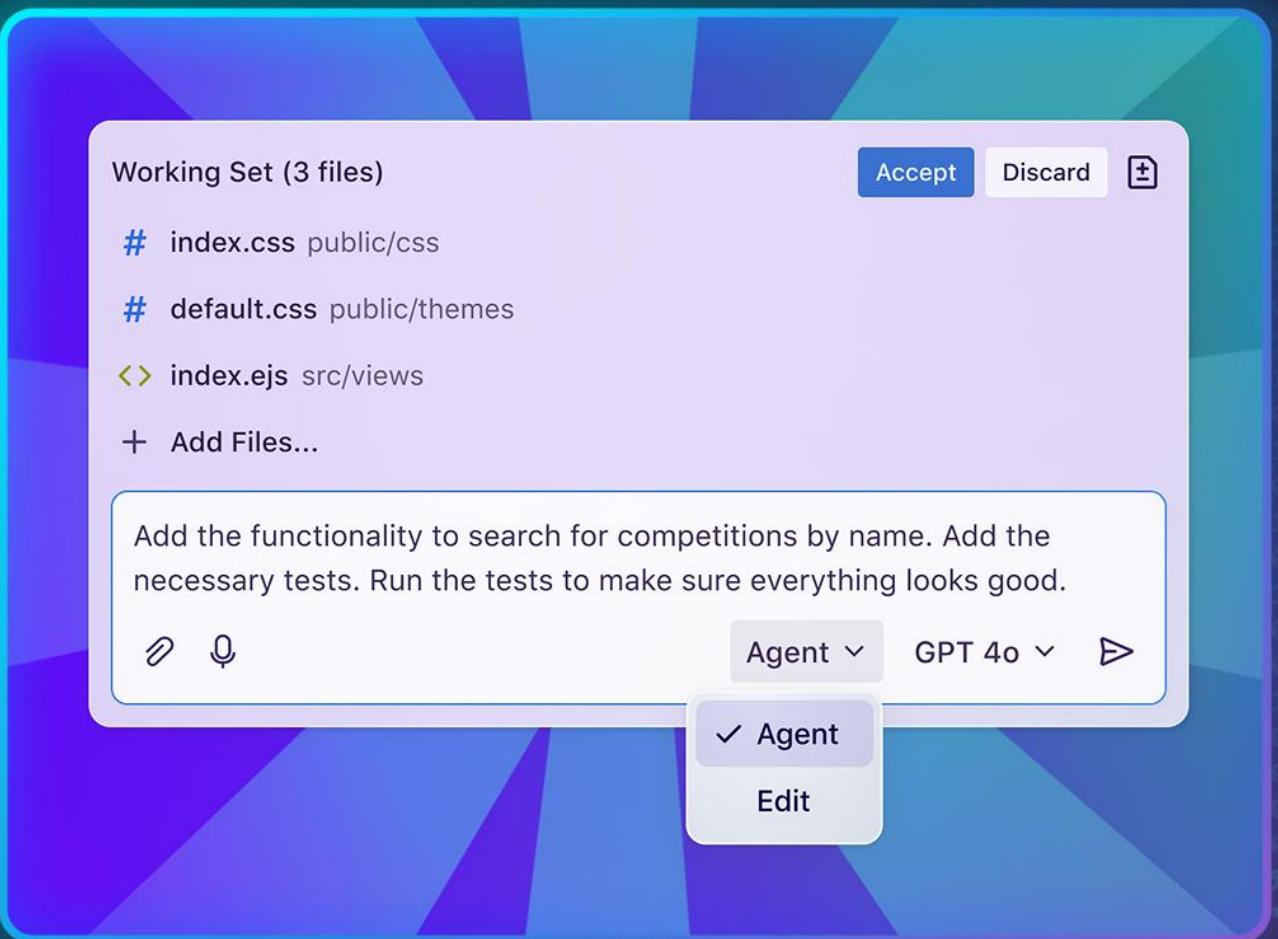
VS Code + Copilot

Demo

GitHub Copilot Agent mode

Now in **Visual Studio**, **Visual Studio Code**,
JetBrains IDEs, Eclipse, and Xcode

<https://aka.ms/copilot-free>





Latest Models

Use the best model for your task and project with support for the latest models from OpenAI, Anthropic, and Gemini, including GPT 5, Gemini 2.5 Pro, and Claude Sonnet 4.

Level up your interactions with GitHub Copilot with support for vision across models.

A screenshot of the GitHub Copilot interface. At the top, there's a search bar with the placeholder "src -". Below it, a user profile for "ditarald" is shown, along with a file named "organic-store-design.jpg" and a code snippet "Home.tsx:1-23". A GitHub Copilot card below shows the AI has used 3 references and will help transform the organic store design into a cat café website. The code completion window displays the following React component:



Multi-Model Choice

Bring Your own model & key

Connect custom LLM providers and use model that work best for you

Anthropic, Azure OpenAI (including government), Google Vertex, Ollama, OpenAI, OpenRouter

Public Preview – Copilot Free & Pro only

The screenshot shows a code editor interface with a pull request summary at the top:

style.css +12 -0

The # style.css file has been updated to include the CSS Grid layout and styling for the snake and food elements. This should resolve the issue with the snake not moving.

Here's what was added:

1. **Grid Layout:** The #game-board now uses display: grid with 20 columns and 20 rows, each 20px wide/tall.
2. **Snake Styling:** The .snake class now has a dark background.
3. **Food Styling:** The .food class is styled as a red circle.

Try refreshing the browser to see the snake move. If it still doesn't work, let me know!

Below the summary, there are standard GitHub-style commit buttons: Squash, Revert, Merge, and Discard.

File changes:

- 3 files changed
- index.html
- script.js
- style.css

File status icons: 7 files, Add Context..., Current file.

Agent mode settings: Agent, DeepSeek, Manage Models...

Model selection dropdown: Claude 3.5 Sonnet (Preview), Claude 3.7 Sonnet (Preview), DeepSeek: DeepSeek V3 0324, GPT-4o.

Team Customization

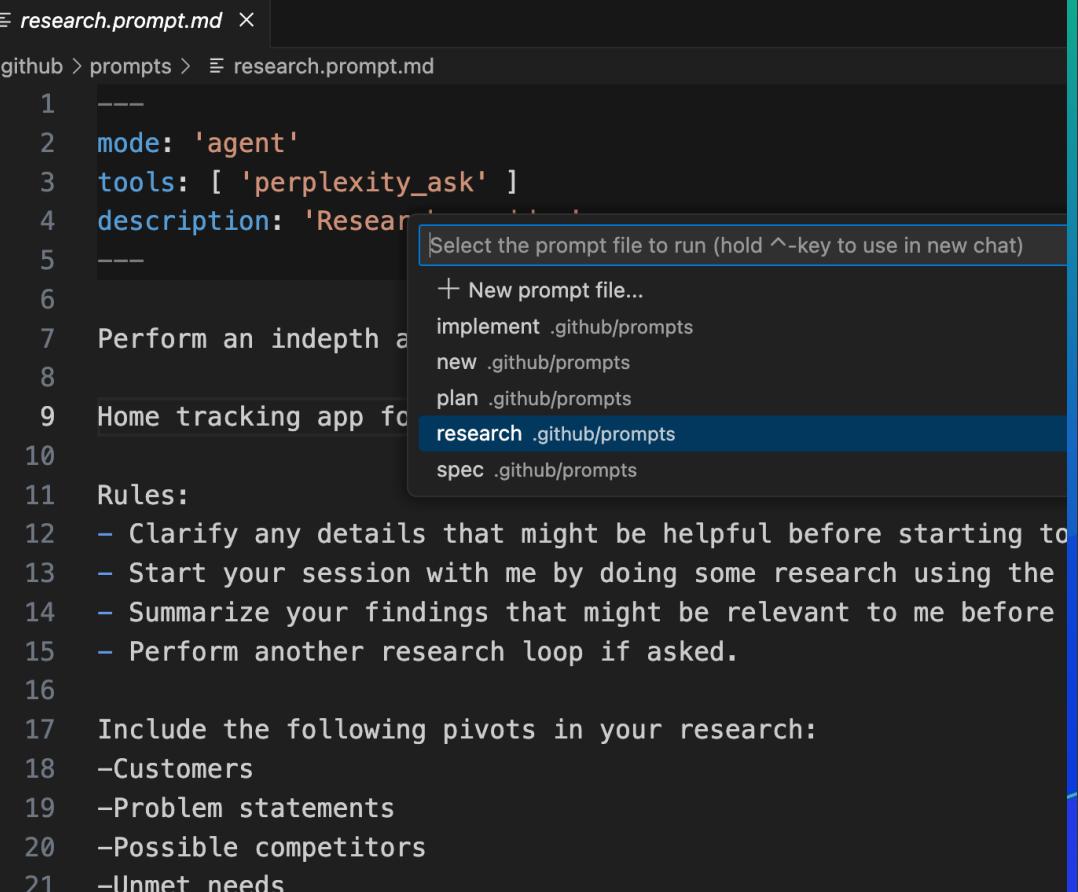
Personalized code and workflows

Build **repeatable, AI-powered workflows for your team** with **prompt files** that describe their own prompts, tools, and models.

Scale domain knowledge from senior engineers across the team with **custom instructions**.

Create **custom modes** that encapsulate different **workflows**, like planning, debugging, etc.

Discover the **community resources** in the **Awesome Copilot** repo.



```
research.prompt.md
.github > prompts > research.prompt.md

1  ---
2  mode: 'agent'
3  tools: [ 'perplexity_ask' ]
4  description: 'Research'
5  ---
6
7  Perform an indepth a
8
9  Home tracking app fo
10
11 Rules:
12   - Clarify any details that might be helpful before starting to
13   - Start your session with me by doing some research using the
14   - Summarize your findings that might be relevant to me before
15   - Perform another research loop if asked.
16
17 Include the following pivots in your research:
18   -Customers
19   -Problem statements
20   -Possible competitors
21   -Unmet needs
```

Select the prompt file to run (hold ⌘-key to use in new chat)

- + New prompt file...
- implement .github/prompts
- new .github/prompts
- plan .github/prompts
- research .github/prompts**
- spec .github/prompts

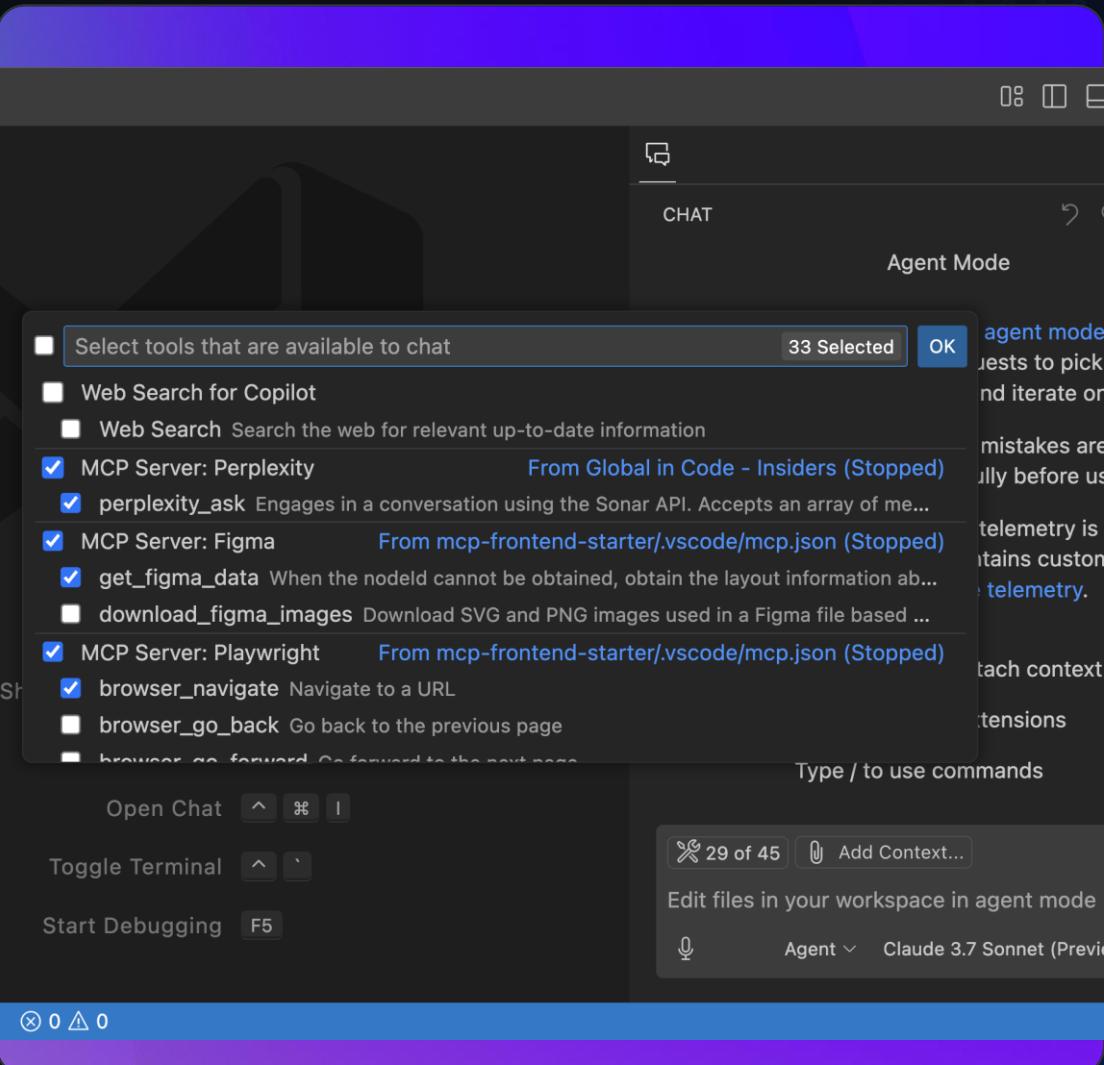


MCP Extensibility

Extend agent mode with Model Context Protocol (MCP)

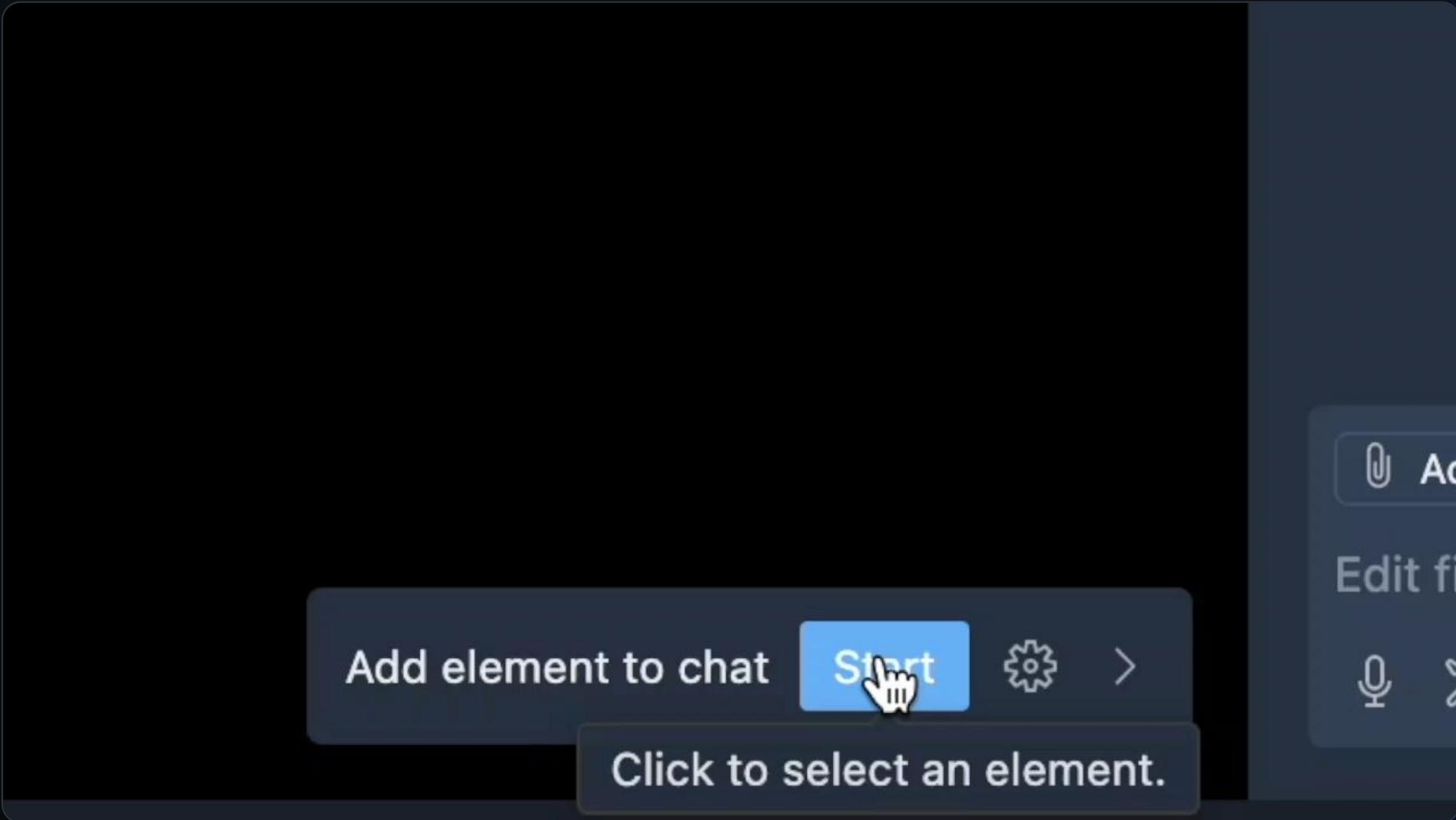
Make agent mode your own by adding tools contributed by MCP servers like Figma, GitHub, or Perplexity.

VS Code is the *only* editor to support the full MCP specification, including OAuth, prompts, sampling, and resources.

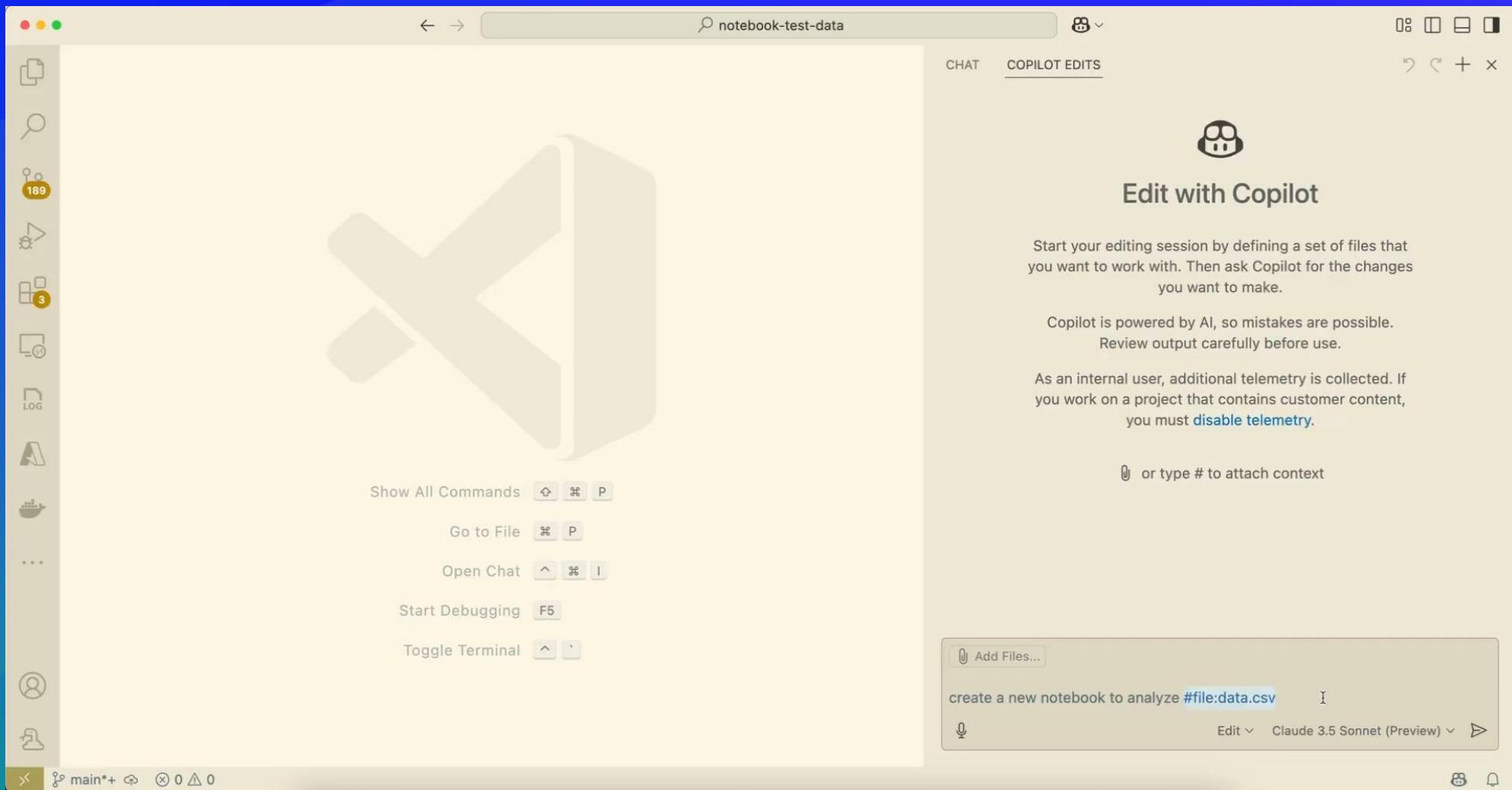




Visual web vibing



Copilot-powered Data Science

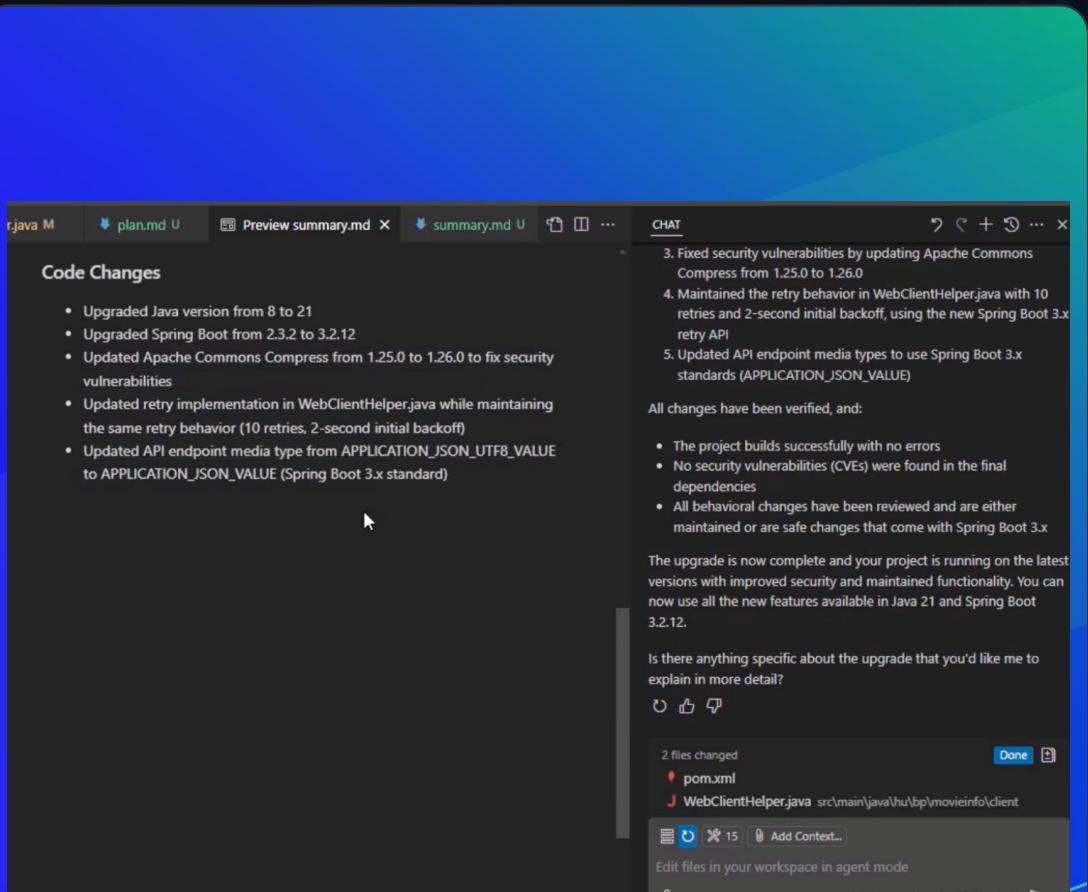


Java & .NET Upgrade (Preview)

Specialized agents to reduce developer toil

Expert team members to solve specialized problems and reduce engineering toil.

Leading with agents for .NET and Java upgrade, with more in the pipeline.



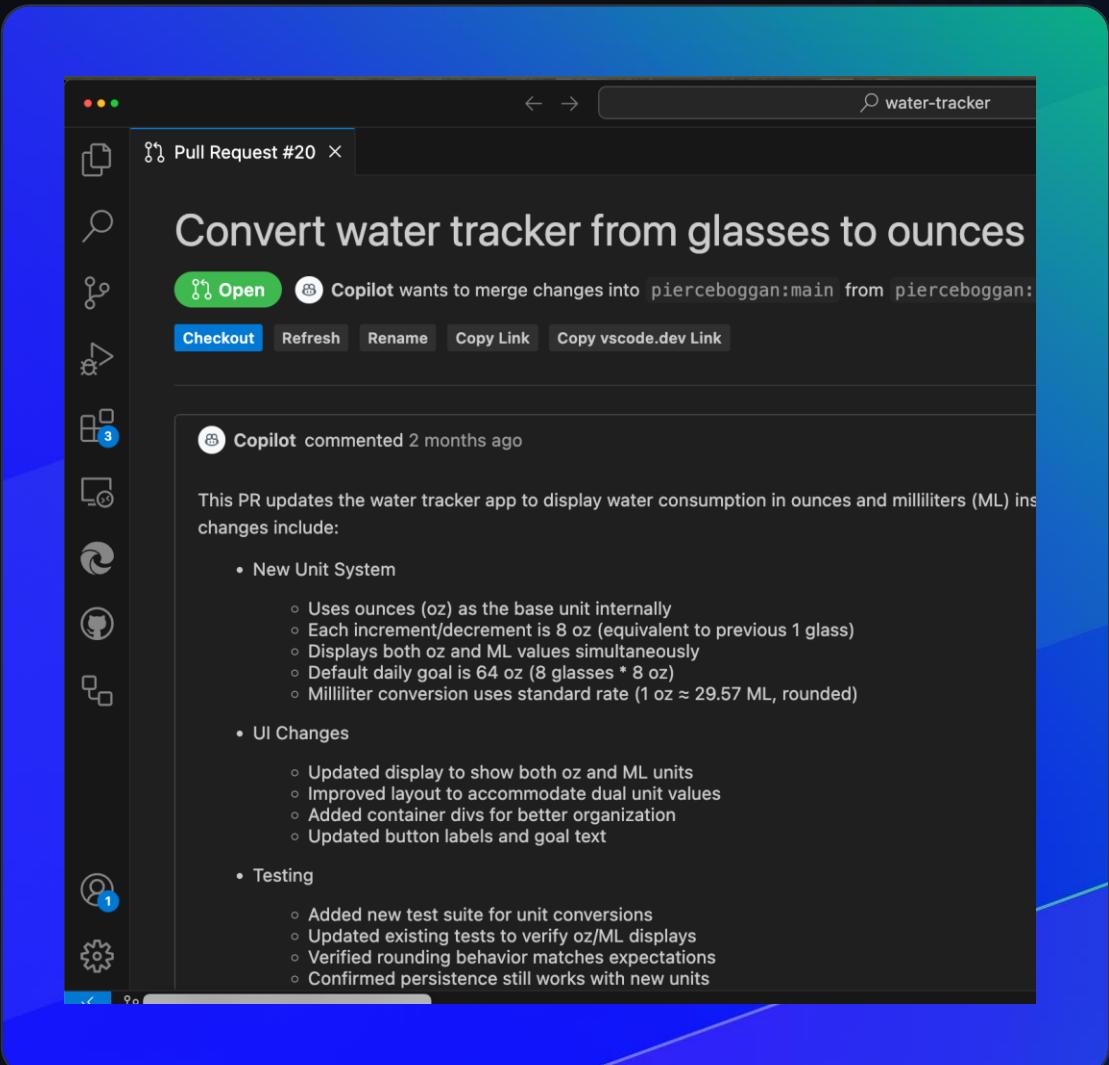
VS Code & Coding Agent (Preview)

Hand off tasks to async agents

Developers can **achieve even more with agent mode by delegating tasks to coding agent** in VS Code.

Coding agent **works just like any other team member**: by creating issues and submitting PRs.

Builds on **deep integration with GitHub platform across IDEs** developers love.



The open source
AI code editor

Thank you!

Next steps

1. **Download VS Code:**
aka.ms/vscode-dev-days/get-vscode
2. **Get GitHub Copilot Free:**
aka.ms/vscode-dev-days/get-copilot
3. **Start training:**
aka.ms/vscode-dev-days/training

Please remember to share the survey at
the end of the workshop

**Please share
your feedback
to Microsoft.**

