

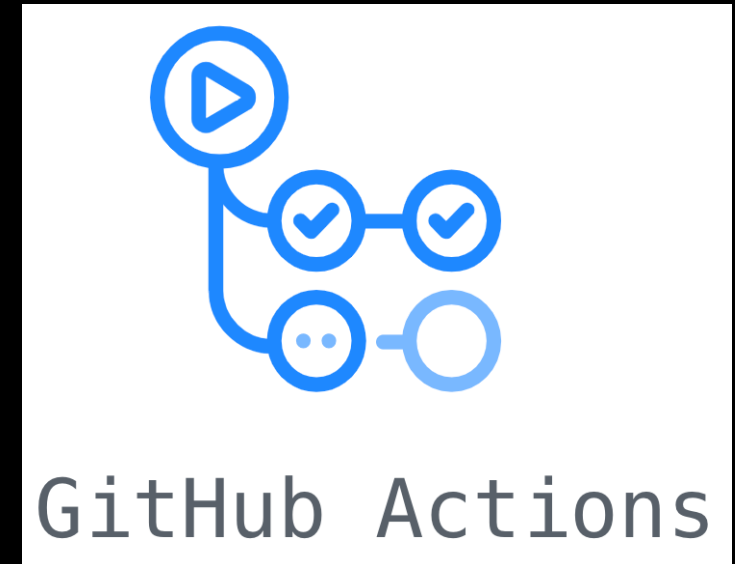
Sesión 6

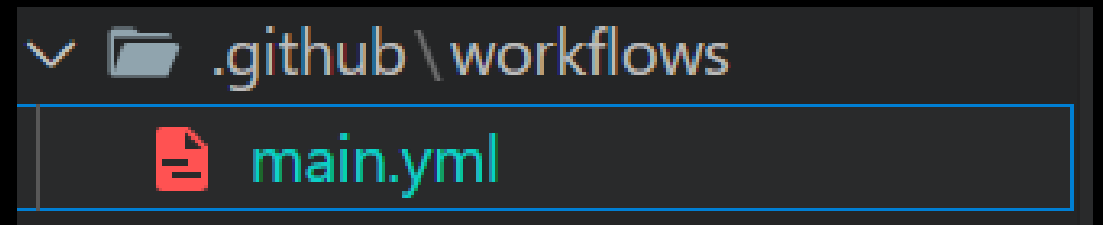
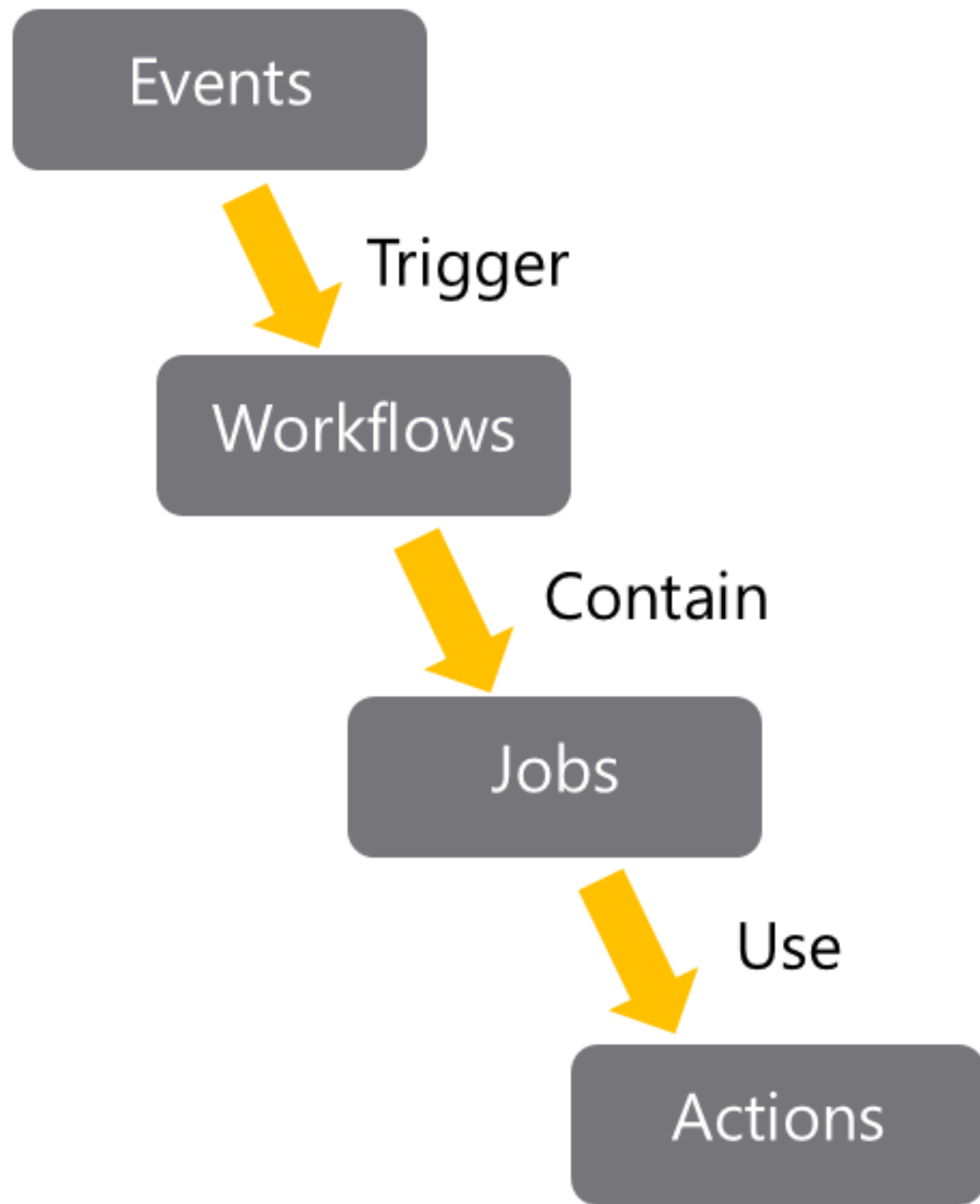
Desarrollo Moderno con GitHub

GitHub Actions

GitHub Actions

- Principal mecanismo de automatización del flujo de trabajo en el entorno de GitHub.
- Uso principal: crear soluciones de CI y CD.
- Otros usos:
 - Pruebas automatizadas
 - Respuesta automática a nuevos issues o menciones.
 - Desencadenar revisiones de código.
 - Control de PRs.





```
1  name: test-and-deploy
2  on: push
3
4  jobs:
5    test:
6      runs-on: ubuntu-latest
7      container:
8        image: node:11.6.0
9      steps:
10     - uses: actions/checkout@v2
11     - run: npm install
12     - run: npm test
13     - uses: ../.github/workflows/jshint
14
15   deploy:
16     runs-on: ubuntu-latest
17     needs: test
18     steps:
19     - run: env
```

Annotations in the image identify parts of the YAML file:

- workflow** points to the `name` field.
- event** points to the `on` field.
- runner** points to the `runs-on` field of the `test` job.
- action** points to the `uses` field of the first step in the `test` job.
- steps** points to the `steps` array of the `test` job.
- jobs** points to the `jobs` section of the file.

Entendiendo los workflows

Los flujos de trabajo incluyen varios elementos de sintaxis estándar:

- name: Nombre del flujo de trabajo.
- on: El evento o la lista de eventos que activarán el flujo de trabajo.
- jobs: La lista de trabajos (uno o más) que se ejecutarán.
- runs-on: Qué ejecutor (runner) usar.
- steps: La lista de pasos del trabajo. Los pasos dentro de un trabajo se ejecutan en el mismo ejecutor.
- uses: Qué acción predefinida debe recuperarse. Por ejemplo, instalar Node.js.
- run: indica al trabajo que ejecute un comando en el runner. Por ejemplo, ejecutar un comando npm.

Workflows para comenzar:

<https://github.com/actions/starter-workflows>

Sintaxis para los flujos de trabajo de GitHub Actions:

<https://docs.github.com/en/actions/writing-workflows/workflow-syntax-for-github-actions>

```
# .github/workflows/build.yml
name: Node Build.

on: [push]

jobs:
  mainbuild:

    runs-on: ${ matrix.os }

    strategy:
      matrix:
        node-version: [12.x]
        os: [windows-latest]

    steps:

      - uses: actions/checkout@v1
      - name: Run node.js on latest Windows.
        uses: actions/setup-node@v1
        with:
          node-version: ${ matrix.node-version }

      - name: Install NPM and build.
        run: |
          npm ci
          npm run build
```

Práctica

GitHub Actions

<https://github.com/icebeam7/tutorial-node-calculator-actions>

Eventos

Eventos programados

```
on:
  schedule:
    - cron: '0 8-17 * * 1-5'
```

Eventos manuales:

```
on:
  workflow_dispatch
```

Eventos a través de un webhook

```
on:
  gollum
```

Eventos de código

```
on:
  pull_request
```

```
on:
  [push, pull_request]
```

```
on:
  pull_request:
    branches:
      - develop
```

Jobs (Trabajos)

```
jobs:
  startup:
    runs-on: ubuntu-latest
    steps:

      - run: ./setup_server_configuration.sh
  build:
    steps:

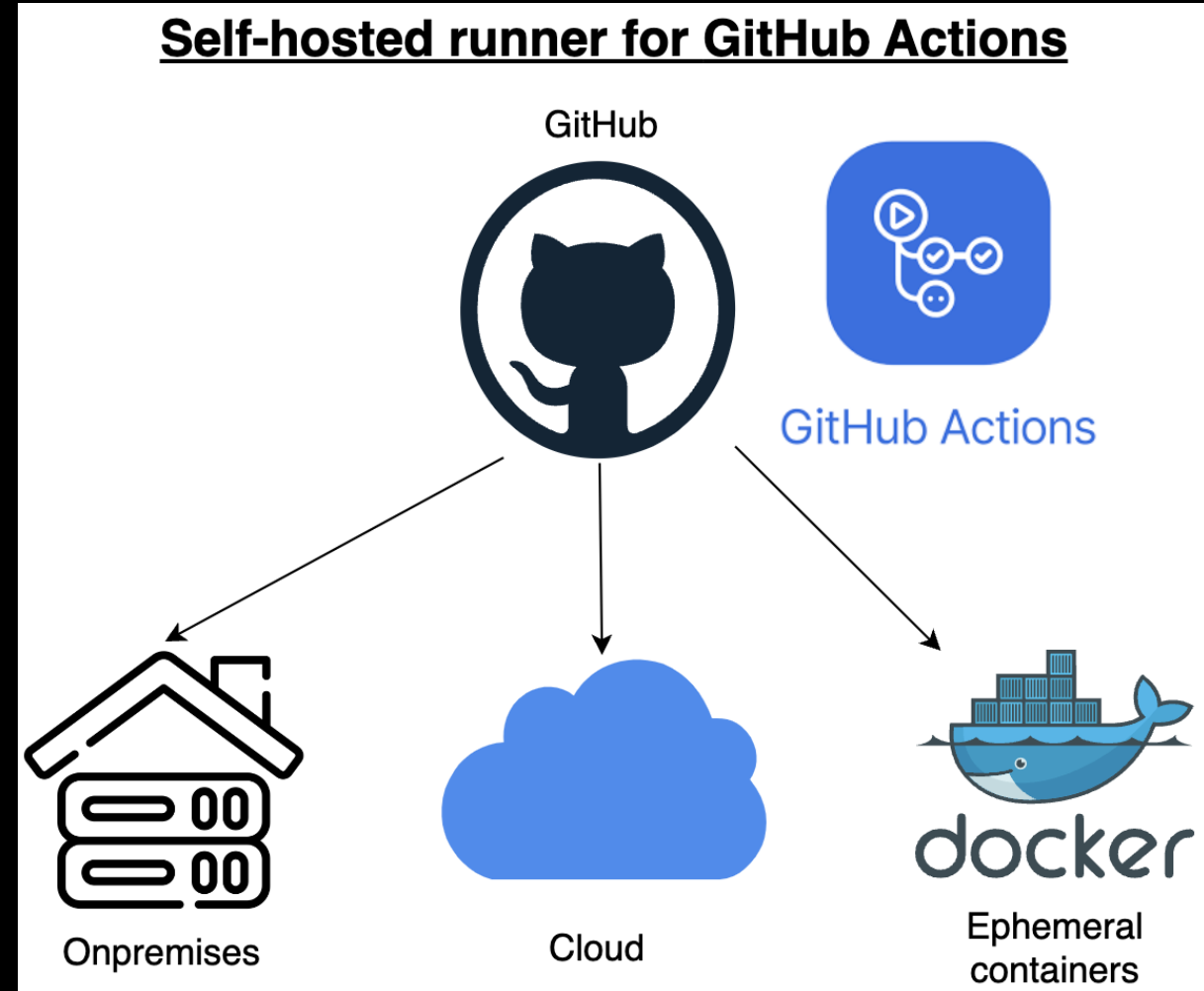
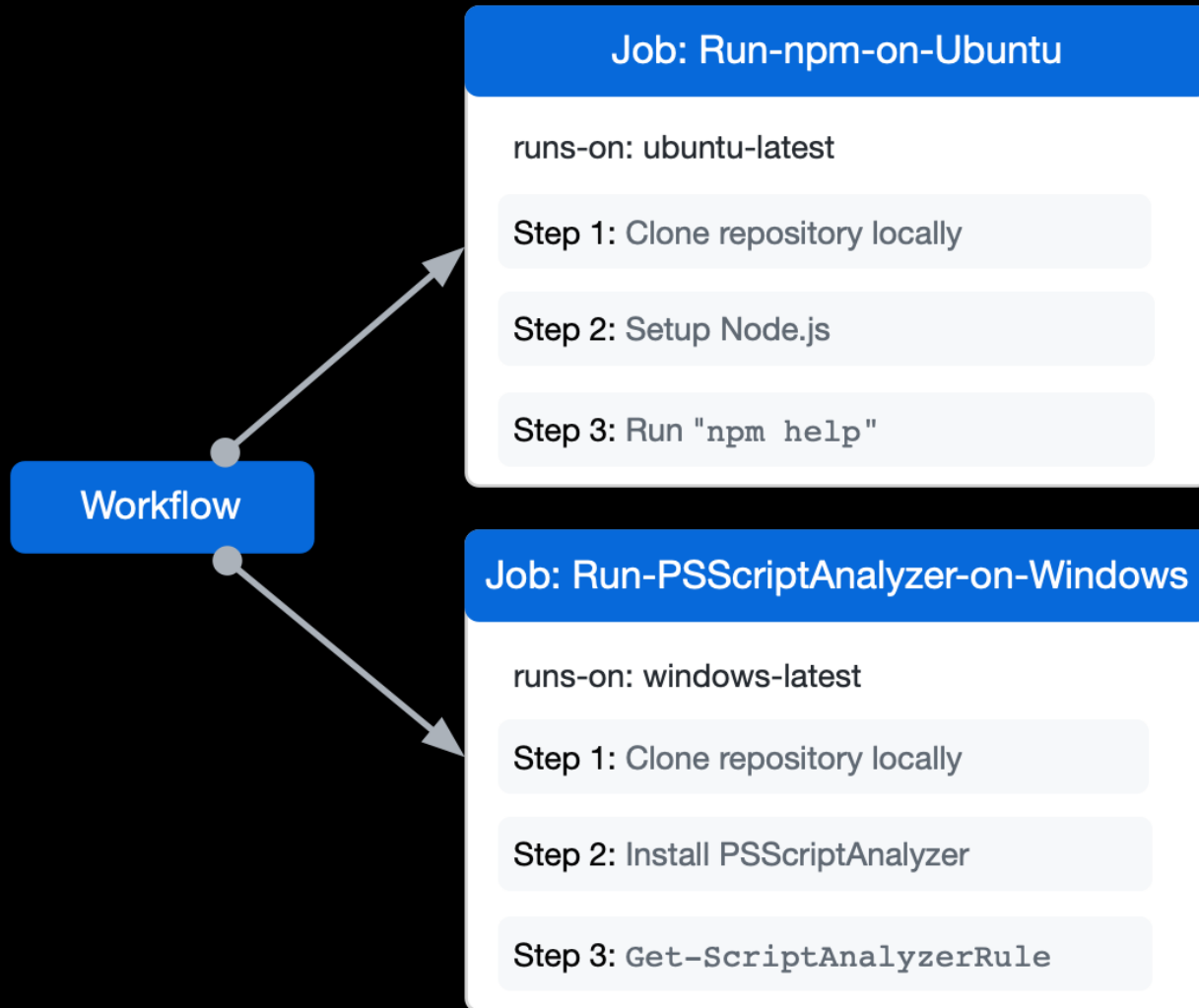
      - run: ./build_new_server.sh
```

```
jobs:
  startup:
    runs-on: ubuntu-latest
    steps:

      - run: ./setup_server_configuration.sh
  build:
    needs: startup
    steps:


      - run: ./build_new_server.sh
```


Runners (ejecutores)



Examinar los resultados de un workflow

[Code](#) [Issues](#) [Pull requests](#) **1** [Actions](#) [Projects](#) [Wiki](#) [Security](#)

 Update main.yml
main fe87616

✓ A workflow for my Hello World file
on: push

✓ Hello world action

Hello world action
succeeded 4 hours ago in 14s

> ✓ Set up job

> ✓ Run actions/checkout@v1

> ✓ Run ./action-a

> ✓ Complete job

Precio

GitHub incluye minutos de trabajo (suma del tiempo de ejecución de nuestros flujos) gratuitos al mes según el tipo de cuenta.

Plan	Storage	Minutes (per month)
GitHub Free	500 MB	2,000
GitHub Pro	1 GB	3,000
GitHub Free for organizations	500 MB	2,000
GitHub Team	2 GB	3,000
GitHub Enterprise Cloud	50 GB	50,000

- Si se excede el límite gratuito, se paga \$0.008 USD por GB de almacenamiento por día

Per-minute rates for standard runners ↗	
Operating system	Per-minute rate (USD)
Linux 2-core	\$0.008
Windows 2-core	\$0.016
macOS 3-core or 4-core (M1 or Intel)	\$0.08

<https://docs.github.com/en/billing/managing-billing-for-your-products/managing-billing-for-github-actions/about-billing-for-github-actions>

Aprende más

- <https://learn.microsoft.com/en-us/training/modules/github-actions-automate-tasks/>
- <https://learn.microsoft.com/en-us/training/modules/github-actions-ci/>

GitHub Copilot



Habilitar Copilot



Conectarse a GitHub

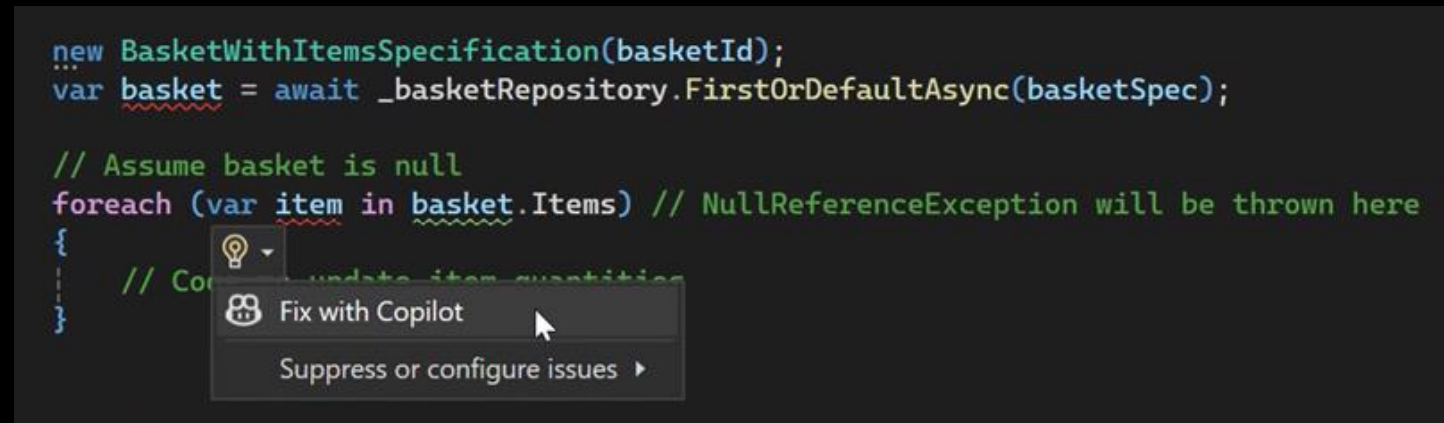
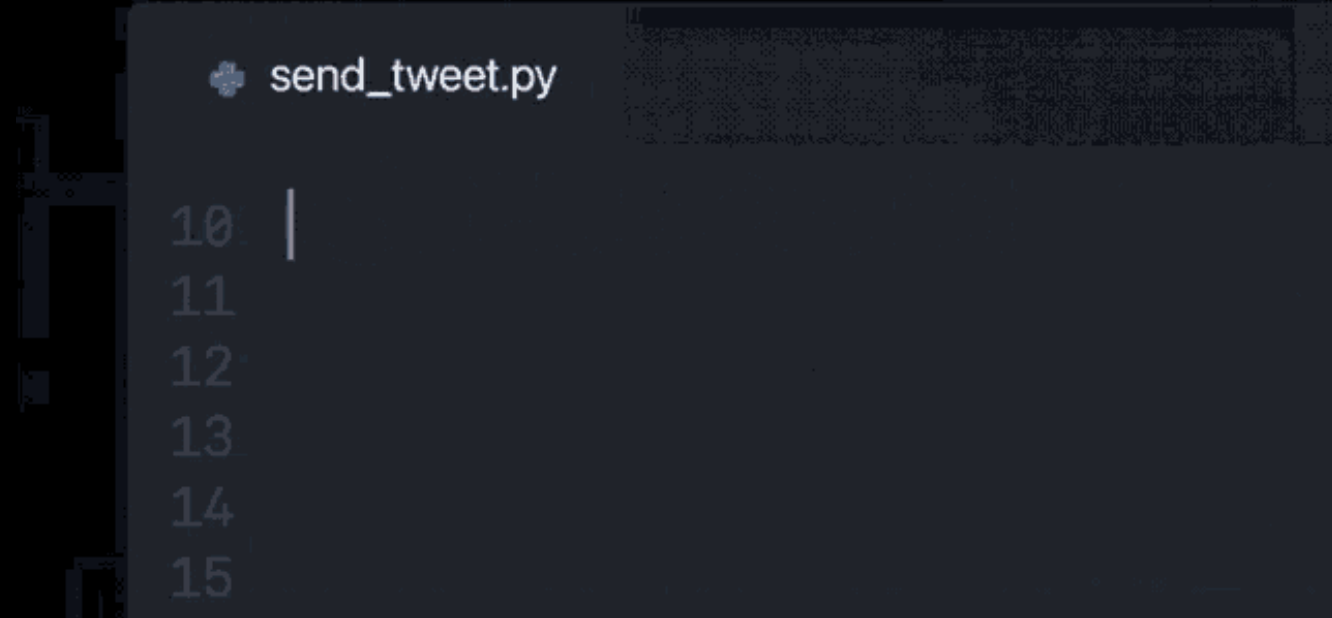


Utilizar varios lenguajes de programación
y herramientas para explorar y
experimentar con GitHub Copilot

GitHub Copilot

- GitHub Copilot es una herramienta de IA a escala mundial para desarrolladores que puede ayudarte a escribir código más rápidamente y con menos trabajo.

- Un asistente de IA
- Programación en pares



- GitHub Copilot extrae el contexto de los comentarios y el código para sugerir líneas individuales y funciones completas al instante.
- OpenAI creó el modelo de lenguaje generativo preentrenado en GitHub Copilot, impulsado por OpenAI Codex.

```
test2.py 5 dev\test2.py\ make_rf_predictions
1  import numpy as np
2  import pandas as pd
3  from sklearn.ensemble import RandomForestClassifier
4
5
6  def make_rf_predictions(X: np.ndarray, y: np.ndarray, X_test: np.ndarray) → np.ndarray:
7      model = RandomForestClassifier(n_estimators=100, random_state=42)
8      model.fit(X, y)
9
10
11  def ds_logic():
12      train_data = pd.read_csv("/kaggle/input/titanic/train.csv")
13      test_data = pd.read_csv("/kaggle/input/titanic/test.csv")
14      y = train_data["Survived"]
15
16      features = ["Pclass", "Sex", "SibSp", "Parch"]
17      X = pd.get_dummies(train_data[features])
18      X_test = pd.get_dummies(test_data[features])
19      predictions = make_rf_predictions(X.values, y.values, X_test.values)
20
21
22
23
```

Activación

The screenshot shows the GitHub Settings page for user Luis Beltran (icebeam7). The page is divided into a left sidebar with navigation links and a main content area. The sidebar includes links for Public profile, Account, Appearance, Accessibility, Notifications, Access, Billing and licensing, Emails, Password and authentication, Sessions, SSH and GPG keys, Organizations, Enterprises, Moderation, Code, planning, and automation, Repositories, Codespaces, Packages, Copilot (highlighted), Pages, and Saved replies. The main content area is titled 'GitHub Copilot' and shows that GitHub Copilot Pro+ is active for the account. It provides instructions on how to get started by installing the extension in the preferred environment, with buttons for 'Copilot in your IDE', 'Copilot in the CLI', 'Chat in GitHub Mobile', and 'More features'. Below this, there are sections for 'Features' including 'Editor preview features', 'Copilot in GitHub.com', 'Copilot in the CLI', 'Copilot in GitHub Desktop' (marked as Preview), and 'Copilot Chat in the IDE'.

Settings

Luis Beltran (icebeam7)
Your personal account [Switch settings context](#)

- Public profile
- Account
- Appearance
- Accessibility
- Notifications

Access

- Billing and licensing
- Emails
- Password and authentication
- Sessions
- SSH and GPG keys
- Organizations
- Enterprises
- Moderation

Code, planning, and automation

- Repositories
- Codespaces
- Packages
- Copilot**
- Pages
- Saved replies

GitHub Copilot

GitHub Copilot Pro+ is active for your account

You currently have an active [Copilot Pro+ subscription](#).
Get started by installing the extension in your preferred environment.

[Copilot in your IDE](#) [Copilot in the CLI](#) [Chat in GitHub Mobile](#) [More features](#)

Features

Editor preview features

You can use preview features in your editor. [Learn more.](#)

Copilot in GitHub.com

You can use Copilot Chat in GitHub.com, Copilot for pull requests, and all of the preview features. [Learn more.](#)

Copilot in the CLI

You can use [GitHub Copilot for assistance in terminal.](#)

Copilot in GitHub Desktop Preview

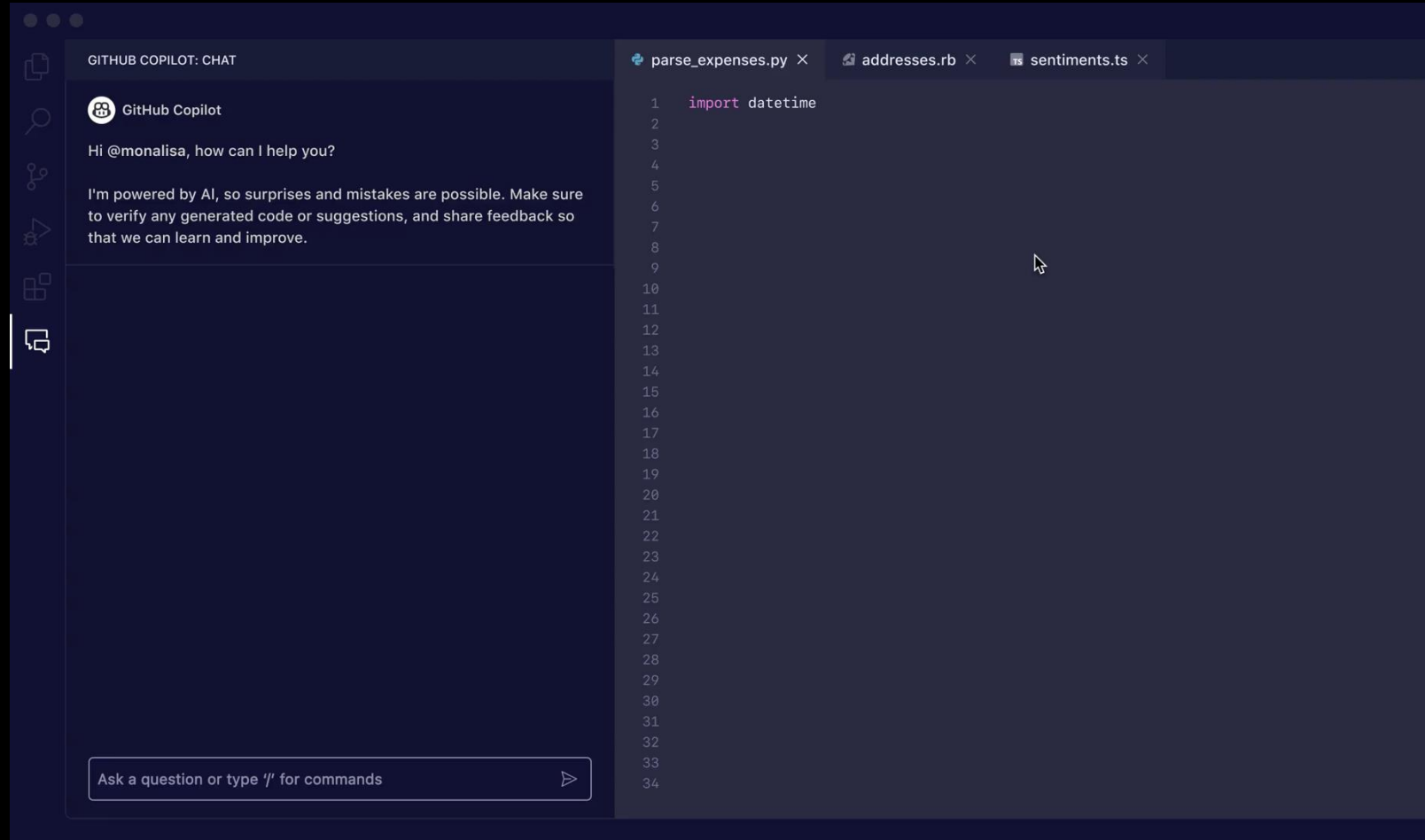
You can use [GitHub Copilot for assistance in GitHub Desktop.](#)

Copilot Chat in the IDE

You can use [GitHub Copilot Chat in the IDE](#) to explain a piece of code, propose bug fixes, or generate


Disponibilidad

- Hay disponible una extensión para:
 - Visual Studio Code
 - Visual Studio,
 - Neovim
 - JetBrains
-
- También se puede acceder desde:
 - CLI
 - GitHub (sitio web)



EXTENSIONS: MARKETPLACE ↻ ⋮

copilot ⋮ ⚙




GitHub Co...

22.8M ⭐ 3.5

Your AI pair programmer

GitHub [Install](#) ▾




GitHub Cope...

17.2M ⭐ 3

AI chat features powered ...

GitHub [Install](#) ▾




Copilot Theme

368K ⭐ 5

A VSCode implementation...

Benjamin Benais [Install](#)




ChatGPT Co...

135K ⭐ 5

An VS Code ChatGPT Cop...

Pengfei Ni [Install](#)




GitHub Copil...

49K ⭐ 5

GitHub Copilot for Azure i...

Microsoft [Install](#)

Extension: GitHub Copilot ✕



GitHub Copilot

v1.246.0

GitHub [github.com](#) | 22,886,203 | ⭐⭐

Your AI pair programmer

[Install](#) ▾ ☒ Auto Update ⚙

DETAILS

FEATURES

CHANGELOG

EXTENSION PACK

GitHub Copilot – Your AI pair programmer

GitHub Copilot is an AI pair programmer tool that helps you write code faster and smarter.

[Sign up for a GitHub Copilot free trial](#)

Categories

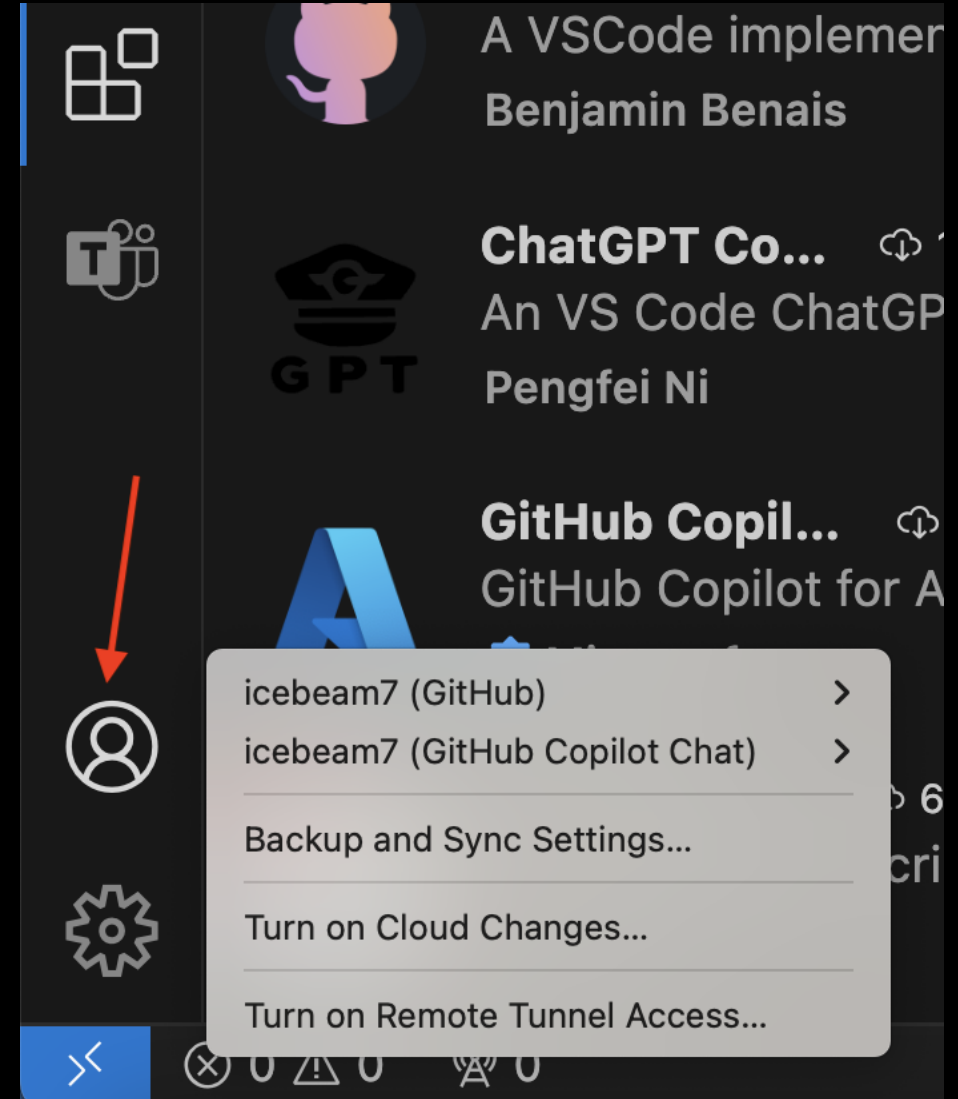
Programming Languages

Machine Learn

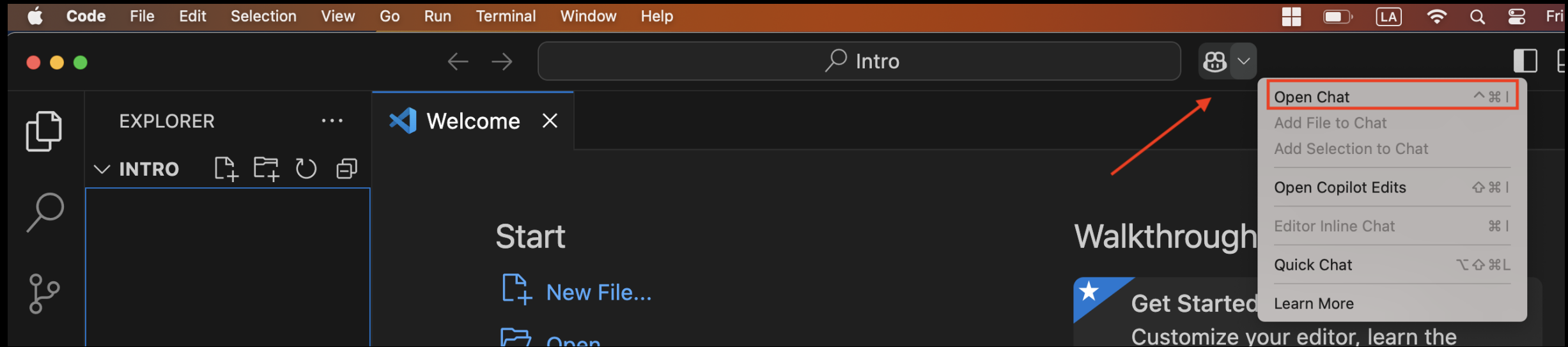
AI Chat



Resources








Inicia sesión en GitHub desde el editor para poder utilizar GitHub Copilot




GitHub Copilot Chat




 


      



Ask Copilot

Copilot is powered by AI, so mistakes are possible.
Review output carefully before use.





 or type # to attach context








 to chat with extensions


Type / to use commands

[/help](#) What can you do?

Estoy aprendiendo a programar en JavaScript.
Cómo puedo declarar dos variables, sumar
ambos valores e imprimir el resultado?

   GPT 4o 





      

 **GitHub Copilot**

Para declarar dos variables en JavaScript, sumar sus valores e imprimir el resultado, puedes seguir estos pasos:

1. Declara las dos variables.
2. Suma los valores de las variables.
3. Imprime el resultado.


Aquí tienes un ejemplo de código:




```
// Declarar dos variables
let a = 5;
let b = 10;

// Sumar los valores de las variables
let suma = a + b;

// Imprimir el resultado
console.log('El resultado de la suma es: ')
```





Insert into Terminal 
Insert into New File

Este código declarará dos variables `a` y `b`, sumará sus valores y luego imprimirá el resultado en la consola.

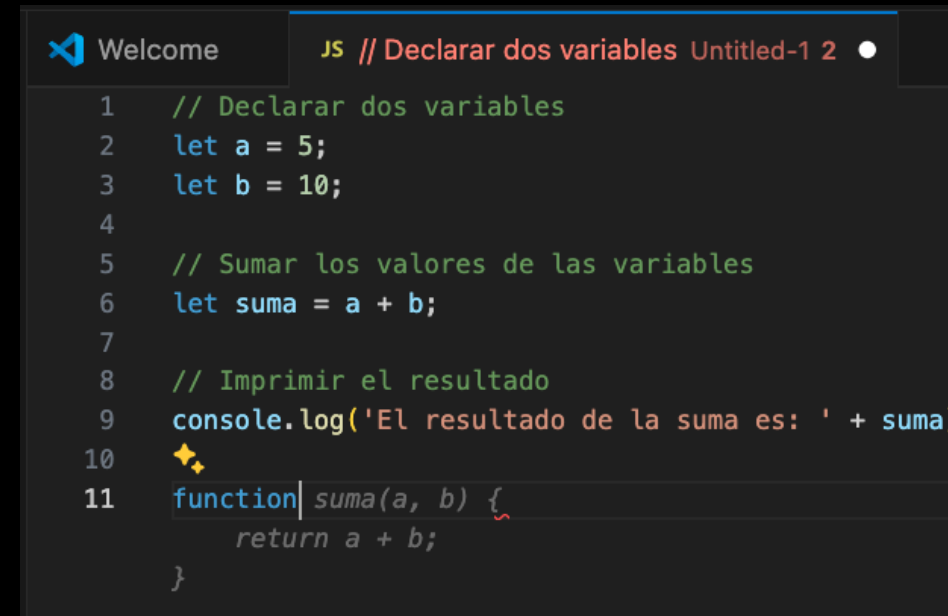
[What if I use different values?](#)

Ask Copilot

   GPT 4o 

Sugerencias en código existente

- En la ventana abierta por el código anterior, comienza a escribir **function suma(a, b)**
 - Observa cómo GitHub Copilot te va sugiriendo líneas o bloques de código a escribir.
 - Presiona Tab para aceptar la sugerencia
- Escribe **// Función para restar 2 números**
 - Presiona Tab para aceptar las sugerencias



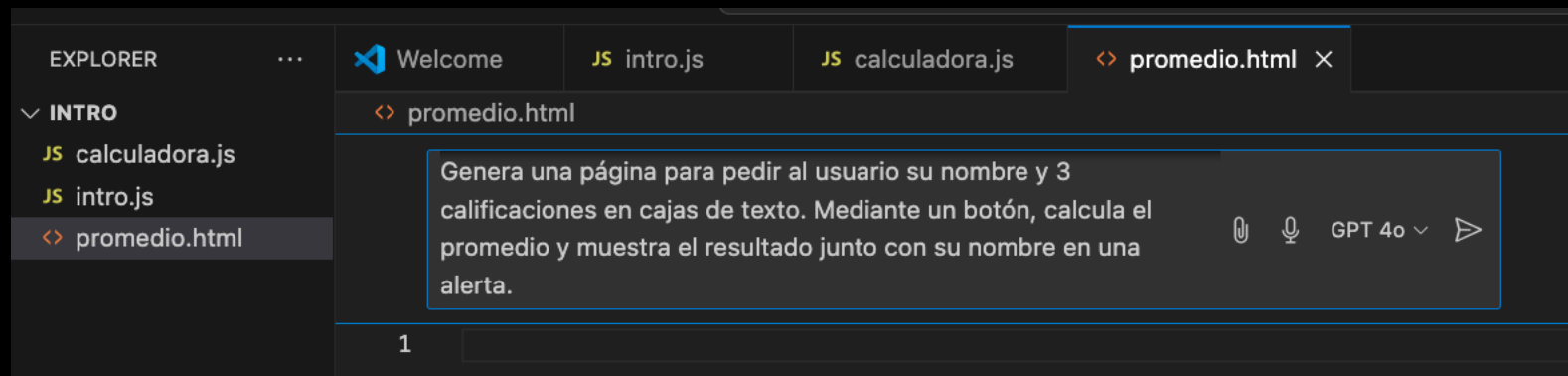
The screenshot shows a code editor with a dark theme. The top bar indicates the active file is 'JS // Declarar dos variables Untitled-1 2'. The code is as follows:

```
1 // Declarar dos variables
2 let a = 5;
3 let b = 10;
4
5 // Sumar los valores de las variables
6 let suma = a + b;
7
8 // Imprimir el resultado
9 console.log('El resultado de la suma es: ' + suma);
10
11 function suma(a, b) {
    return a + b;
}
```

GitHub Copilot suggestions are visible as faint, semi-transparent text behind the code. A yellow star icon is located on line 10, and a red squiggly line is under the closing brace of the function on line 11.

Chat Integrado

- Crea un nuevo archivo llamado **promedio.html**
- Abre el Chat integrado en el Editor presionando:
 - Ctrl + I (Windows, Linux)
 - Command + I (Mac)
- Se abrirá el Chat integrado (Inline Chat).
- Escribe el mensaje y presiona Enter



<> promedio.html > html



Genera una página para pedir al usuario su nombre y 3 calificaciones en cajas de texto. Mediante un botón, calcula el promedio y muestra el resultado junto con su nombre en una alerta.

Ask Copilot



GPT 4o ▾



Accept

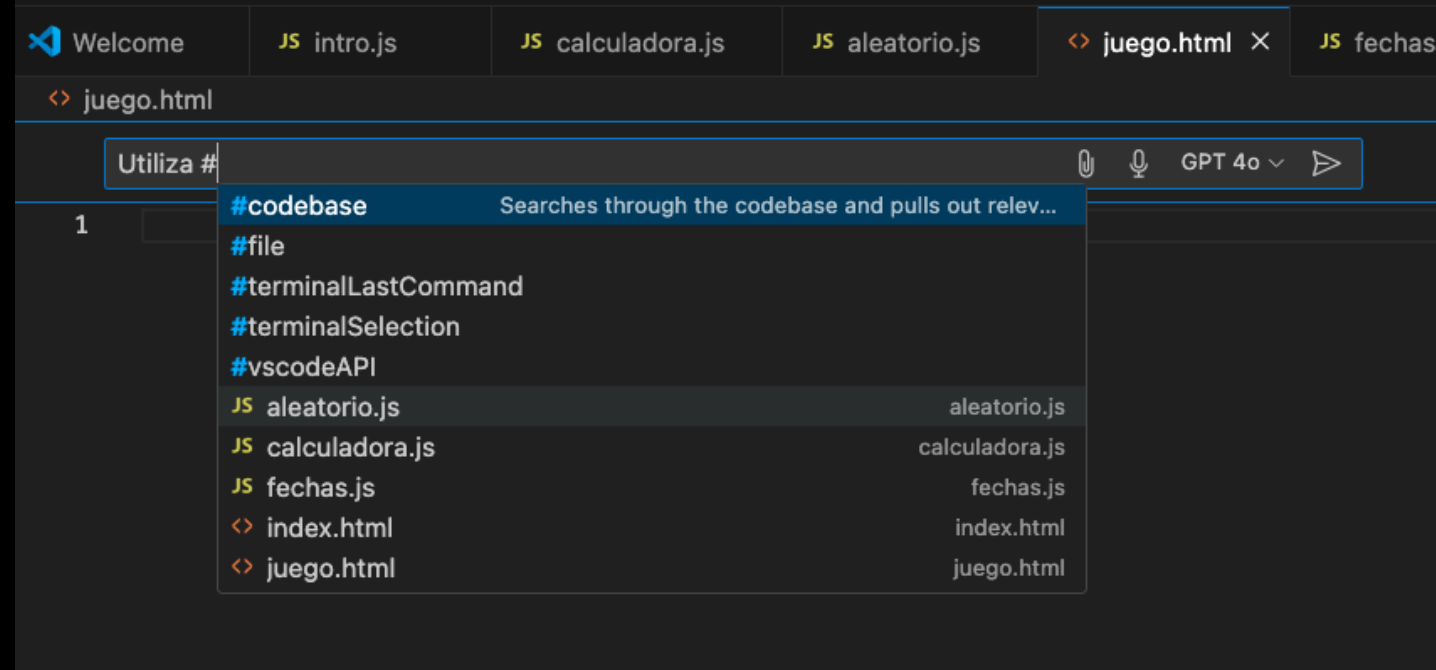
Discard



```
1 <!DOCTYPE html>
2 <html lang="es">
3 <head>
4   <meta charset="UTF-8">
5   <meta name="viewport" content="width=device-width, initial-scale=1.0">
6   <title>Calculadora de Promedio</title>
7   <script>
8     function calcularPromedio() {
9       var nombre = document.getElementById('nombre').value;
10      var calificacion1 = parseFloat(document.getElementById('calificacion1').value);
11      var calificacion2 = parseFloat(document.getElementById('calificacion2').value);
12      var calificacion3 = parseFloat(document.getElementById('calificacion3').value);
13
14      var promedio = (calificacion1 + calificacion2 + calificacion3) / 3;
15
16      alert('Hola ' + nombre + ', tu promedio es: ' + promedio.toFixed(2));
17    }
18  </script>
19 </head>
20 <body>
21   <h1>Calculadora de Promedio</h1>
22   <form onsubmit="event.preventDefault(); calcularPromedio();">
23     <label for="nombre">Nombre:</label>
```

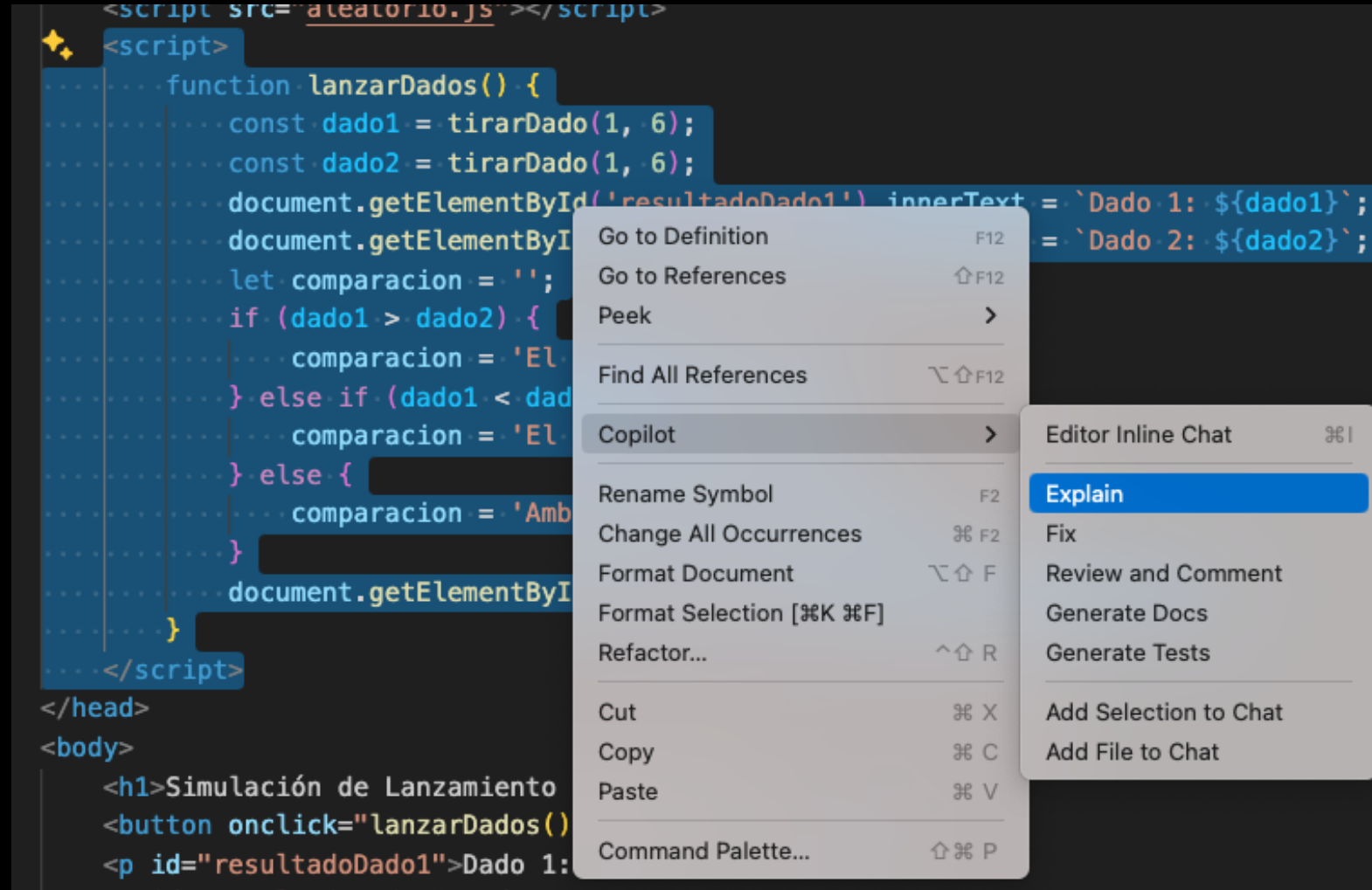
Usar referencias

- Usa el caracter # para referenciar archivos, carpetas o toda la base de código



Menús adicionales

- Explain
- Fix
- Review and Comment
- Generate Docs
- Generate Tests



Práctica

GitHub Copilot

<https://github.com/codespaces/new/MicrosoftDocs/mslearn-copilot-codespaces-python>

Planes

Free

A fast way to get started with GitHub Copilot.

\$0^{USD}

Get started

Open in VS Code

^ What's included

- ✓ 50 agent mode or chat requests per month
- ✓ 2,000 completions per month
- ✓ Access to Claude 3.5 Sonnet, GPT-4o, and more

Most popular

Pro

Unlimited completions and chats with access to more models.

~~\$19~~ **\$10**^{USD}

per month or \$100 per year

Try for 30 days free

^ What's included

Everything in Free and:

- ✓ Unlimited agent mode and chats with GPT-4o
- ✓ Unlimited code completions
- ✓ Access to code review, Claude 3.7 Sonnet, o1, and more
- ✓ 6x more premium requests to use latest models than Free, with the option to buy more¹

Free for verified students, teachers, and maintainers of popular open source projects. [Learn more](#)

Pro+

Maximum flexibility and model choice.

\$39^{USD}

per month or \$390 per year

Get started

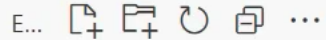
^ What's included

Everything in Pro and:

- ✓ Access to all models, including GPT-4.5
- ✓ 30x more premium requests to use latest models than Free, with the option to buy more¹

Otras características

- Copilot para PRs
- Copilot para la CLI
- Copilot desde GitHub.com
- Modo agente



Find in Files **Ctrl** + **Shift** + **F**

↶ ↷ +



Edit with Copilot

Start your editing session by defining a set of files that you want to work with. Then ask Copilot for the changes you want to make.

Copilot is powered by AI, so mistakes are possible.
Review output carefully before use.

 or type # to attach context

 Add Files...

Edit files in your workspace



Más información

- <https://learn.microsoft.com/en-us/training/paths/copilot/>

GitHub Codespaces

EXPLORESrc > JS App.js > App

GROUP 1

JS App.js src

GROUP 2

Simple Browser

CODESPA...

.devcontainer

.vscode

node_modules

public

src

App.css

JS App.js

JS App.test.js

index.css

index.js

logo.svg

reportWebVitals.js

setupTests.js

.gitignore

LICENSE

package-lock.json

package.json

README.md

OUTLINE

TIMELINE

1

import './App.css';

2

3

function App() {

4

return (

5

<div className="App">

6

<header className="App-header">

7

9

GitHub Codespaces ♥</spa

10

</p>

11

<p className="small">

12

Edit <code>src/App.js</code> and save to reload.

13

</p>

14

<p>

15

<a

16

className="App-link"

17

href="https://reactjs.org"

18

target="_blank"

19

rel="noopener noreferrer"

20

>

21

Learn React

22

PROBLEMS

DEBUG CONSOLE

TERMINAL

PORTS

GITLENS

OUTPUT

TERMINAL

bash


Codespaces: server

Note that the development build is not optimized. To create a production build, use npm run build.

webpack compiled successfully

Simple Browser

https://blackgirlbytes-effective-enigma-9666!



GitHub Codespaces ♥ React

Edit src/App.js and save to reload.

[Learn React](#)

CodeSpaces

main

0 0 0 4

1

CodeStream

Live Share

Quokka

Wallaby

Spaces: 2

UTF-8

LF

JavaScript

Layout: U.S.

4 Spell

¿Cómo crear un codespace?

- Desde una plantilla de GitHub o desde cualquier repositorio de plantillas de GitHub.com para iniciar un nuevo proyecto.
- Desde una rama del repositorio, para el trabajo de nuevas características.
- Desde un PR abierto, para explorar el trabajo en curso.
- Desde un commit en el historial de un repositorio para investigar un error en un punto específico del tiempo.

Codespace desde una plantilla

The screenshot shows the GitHub Codespaces interface. The browser address bar displays `https://github.com/codespaces`. The page header includes the GitHub logo, the text 'Codespaces', a search bar with the placeholder 'Type / to search', and several utility icons. On the left sidebar, there is a section 'By repository' with a list of repositories: 'icebeam7/azure-search-openai-demo-csharp' (1), 'icebeam7/copilot-test' (1), 'luckypamula/azure-ai-agents-labs' (1), and 'technofocus-pte/rag-postgres-openai-python-CSTesting' (1). The main content area is titled 'Your codespaces' and features a 'Go to docs' button and a green 'New codespace' button. Below this is a section 'Explore quick start templates' with a 'See all' link. This section contains four template cards: 'Blank' (By github), 'React' (By github), 'Jupyter Notebook' (By github), and '.NET' (By github). Each card includes a description and a 'Use this template' button.

https://github.com/codespaces

Codespaces

Search: Type / to search

Go to docs New codespace

Your codespaces

Explore quick start templates

See all

Blank
By github

Start with a blank canvas or import any packages you need.

Use this template

React
By github

A popular JavaScript library for building user interfaces based on UI components.

Use this template

Jupyter Notebook
By github

JupyterLab is the latest web-based interactive development environment for notebooks, code, and data.

Use this template

.NET
By github

A full-stack web application template written in C# leveraging the power of .NET 8.

Use this template

By repository

- icebeam7/azure-search-openai-demo-csharp 1
- icebeam7/copilot-test 1
- luckypamula/azure-ai-agents-labs 1
- technofocus-pte/rag-postgres-openai-python-CSTesting 1

Codespace desde una rama

The screenshot shows the GitHub interface for the repository 'icebeam7 / tutorial-node-calculator-actions'. The browser address bar displays the URL 'https://github.com/icebeam7/tutorial-node-calculator-actions/tree/main'. The repository name is 'tutorial-node-calculator-actions' with a 'Public template' label. The navigation bar includes links for Code, Issues, Pull requests, Actions, Projects, Wiki, Security, Insights, and Settings. Below the repository name, there are buttons for Pin, Unwatch (1), and Fork (0). The file list shows folders 'results', 'src', 'steps', and 'test', and files 'README.md' and 'package.json'. The 'Code' button is highlighted, and its dropdown menu is open, showing options for 'Local', 'Codespaces', and 'Copilot'. The 'Codespaces' option is selected, and a modal is displayed with the text 'No codespaces' and a button 'Create codespace on main'. The modal also includes a link 'Learn more about codespaces...' and a note at the bottom: 'Codespace usage for this repository is paid for by icebeam7.'

icebeam7 / tutorial-node-calculator-actions

<> Code Issues Pull requests Actions Projects Wiki Security Insights Settings

tutorial-node-calculator-actions Public template

main 1 Branch 0 Tags

Go to file Add file <> Code

Local Codespaces Copilot

Codespaces
Your workspaces in the cloud

No codespaces
You don't have any codespaces with this repository checked out

Create codespace on main

[Learn more about codespaces...](#)

Codespace usage for this repository is paid for by icebeam7.

Codespace desde un PR

The screenshot shows a GitHub Pull Request (PR) for the repository `dotnet/maui`. The PR title is "[iOS] Fix for FlyoutItemImageStyle breaks selection of first item on startup. #29345". The PR is in a "Draft" state and is intended to merge 2 commits into `dotnet:main` from `BagavathiPerumal:fix-20435`.

The PR description includes a "Note" from BagavathiPerumal, stating: "Are you waiting for the changes in this PR to be merged? It would be very helpful if you could [test the resulting artifacts](#) from this PR and let us know in a comment if this resolves your issue. Thank you!". Below the note, the "Root cause" is explained: "The root cause of the issue is due to a synchronization failure between the logical selection state and visual representation of Shell flyout items on iOS when FlyoutItemImageStyle is implemented".

On the right side of the PR page, a "Codespaces" panel is open. It shows the "Codespaces" tab selected, with the message "No codespaces" and "You don't have any codespaces with this repository checked out". A green button "Create codespace on fix-20435" is visible, along with a link "Learn more about codespaces...". At the bottom of the panel, it states "Codespace usage for this repository is paid for by icebeam7".

Codespace desde un commit

← ↻ <https://github.com/icebeam7/tutorial-node-calculator-actions/tree/6238620f1bcf22228097ab14ca432b8fb29b94ee>

icebeam7 / tutorial-node-calculator-actions

<> Code Issues Pull requests Actions Projects Wiki Security Insights Settings

tutorial-node-calculator-actions Public template Pin Unwatch 1 Fork 0

6238620 1 Branch 0 Tags

icebeam7 Incluir enlace para el archivo de pruebas en la descripción

- results Agregar archivos d
- src Agregar archivos d
- steps Incluir enlace para
- test Agregar archivos d
- README.md Agregar document
- package.json Agregar archivos d

README

Local Codespaces Copilot

Codespaces
Your workspaces in the cloud

No codespaces
You don't have any codespaces with this repository checked out





Create codespace on 6238620f1bcf22...

[Learn more about codespaces...](#)

Codespace usage for this repository is paid for by icebeam7.

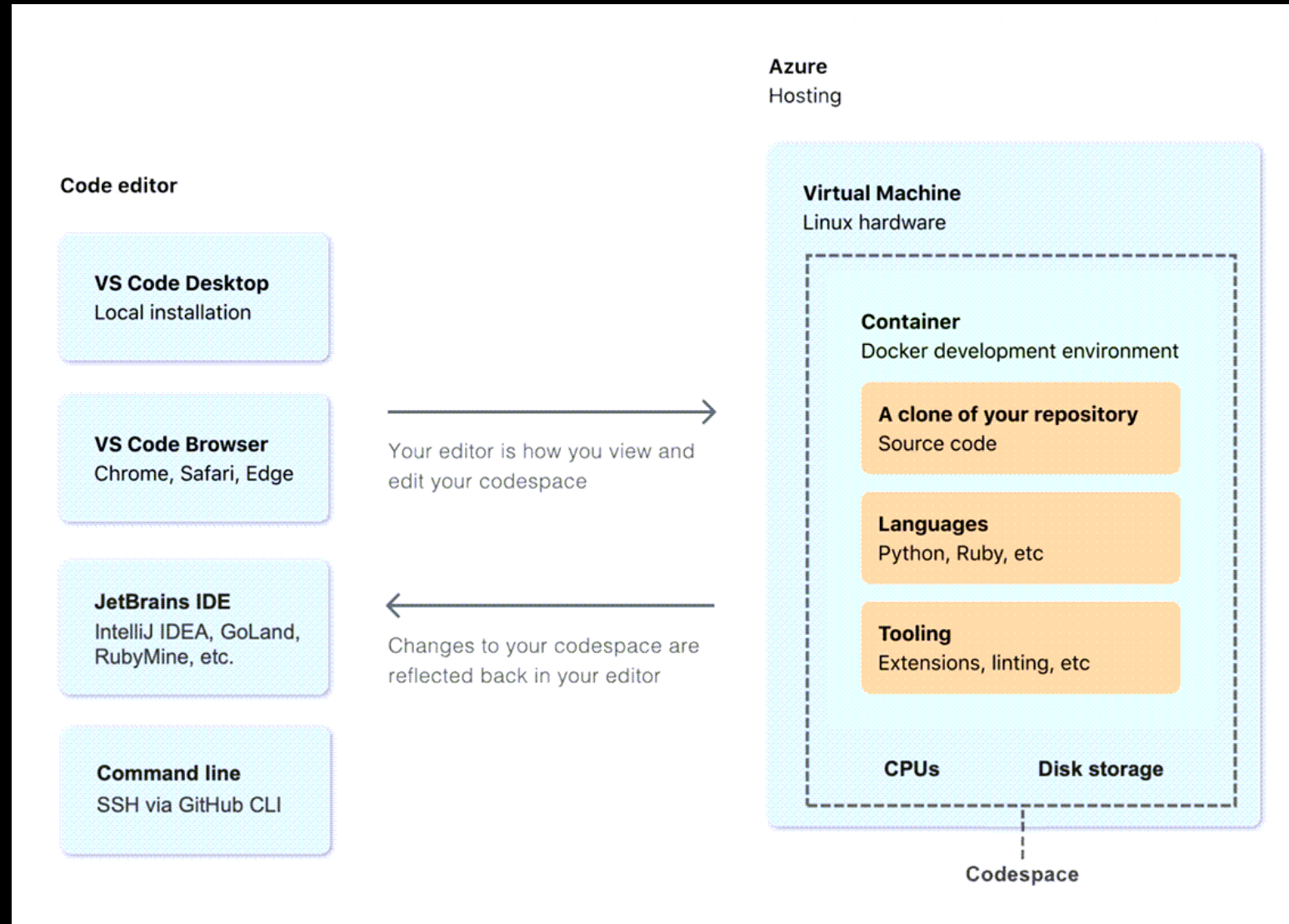
Acceder a un codespace

Owned by icebeam7

 icebeam7/azure-search-openai-demo-csharp glorious dollop main No changes	2-core • 8GB RAM • 32GB • 8.14 GB • Last used 6 days ago
 technofocus-pte/rag-postgres-openai-python-CSTesting opulent telegram main No changes	2-core • 8GB RAM • 32GB
 luckypamula/azure-ai-agents-labs vigilant memory main* This codespace has uncommitted changes	2-core • 8GB RAM • 32GB
 icebeam7/copilot-test friendly fiesta main* This codespace has uncommitted changes	2-core • 8GB RAM • 32GB • Requested

- Rename
- Export changes to a branch
- Change machine type
- Auto-delete codespace ✓
- Open in Browser
- Open in Visual Studio Code
- Open in JupyterLab Preview
- Delete

Proceso de creación de un codespace

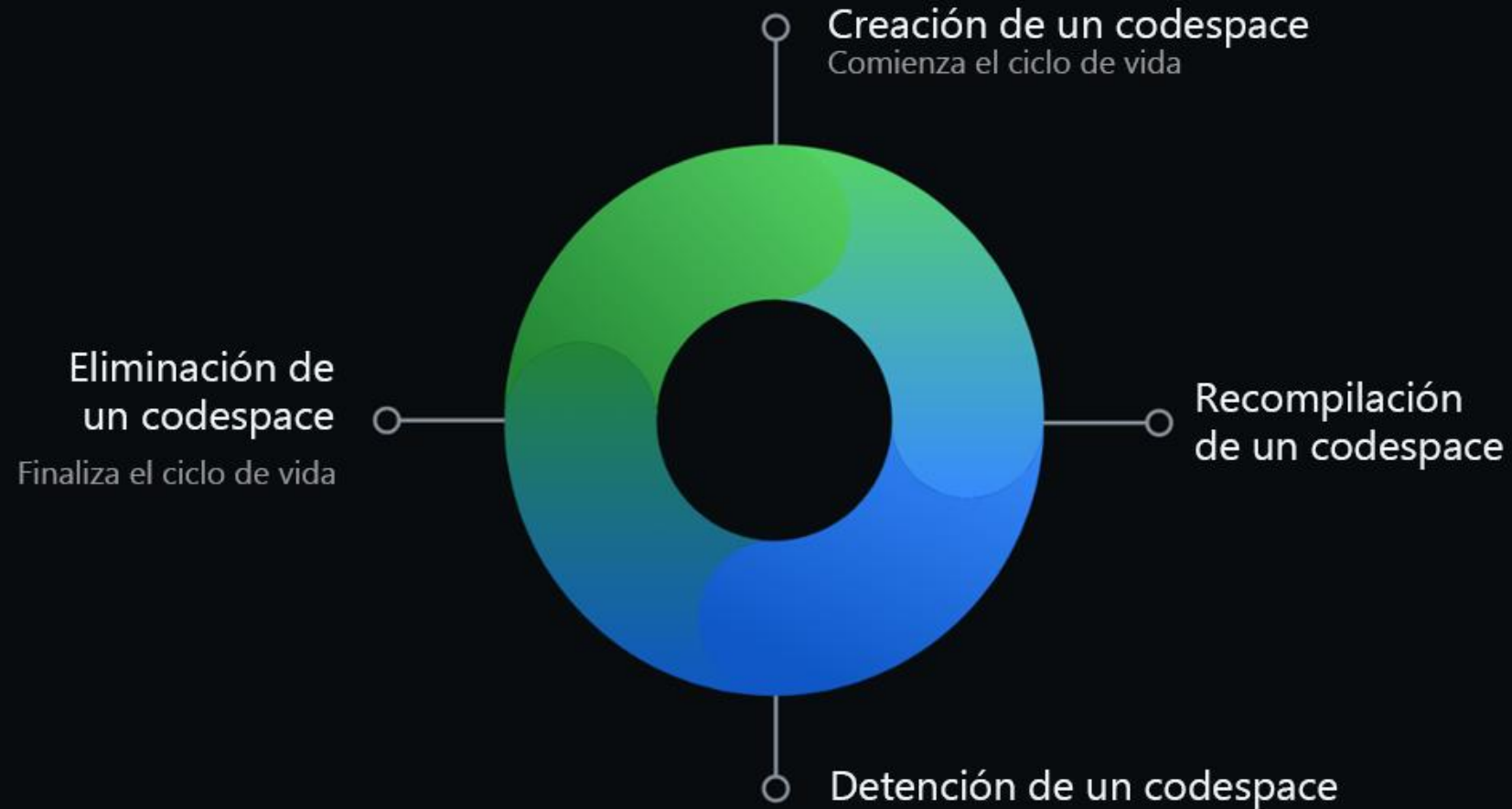


Práctica

GitHub Codespaces

<https://github.com/icebeam7/github-codespace-wth>

Ciclo de vida de un codespace



¿Qué se puede personalizar?

- Sincronizar la configuración
- Dotfiles
- Renombrar el codespace
- Cambiar el shell
- Cambiar el tipo de máquina
- Agregar extensiones o plugins
- Establecer el editor predeterminado
- Establecer la región predeterminada
- Establecer el tiempo de espera
- Configuración de eliminación automática

Archivo .devcontainer/devcontainer.json

```
{  
  "name": "Node.js & Mongo DB",  
  "dockerComposeFile": "docker-compose.yml",  
  "service": "app",  
  "workspaceFolder": "/workspaces/${localWorkspaceFolderBasename}",  
  
  // Configure tool-specific properties.  
  "customizations": {  
    // Configure properties specific to VS Code.  
    "vscode": {  
      // Add the IDs of extensions you want installed when the container is created.  
      "extensions": [  
        "mongodb.mongodb-vscode"  
      ]  
    }  
  },  
  "features": {  
    "ghcr.io/devcontainers/features/azure-cli:1": {}  
  }  
  
  // Use 'forwardPorts' to make a list of ports inside the container available locally.  
  // "forwardPorts": [3000, 27017],  
  
  // Use 'postCreateCommand' to run commands after the container is created.  
  // "postCreateCommand": "yarn install",  
  
  // Uncomment to connect as root instead. More info: https://aka.ms/dev-containers-non-root.  
  // "remoteUser": "root"  
}
```

Precio – comienza gratis

Monthly included storage and core hours for personal accounts

The following storage and core hours of usage are included, free of charge, for personal accounts:

Account plan	Storage per month	Core hours per month
GitHub Free for personal accounts	15 GB-month	120
GitHub Pro	20 GB-month	180

<https://docs.github.com/en/billing/managing-billing-for-your-products/managing-billing-for-github-codespaces/about-billing-for-github-codespaces>

Precio – opciones de pago

Component	Machine type	Unit of measure	Included usage multiplier	Price
Codespaces compute	2 core	1 hour	2	\$0.18
Codespaces compute	4 core	1 hour	4	\$0.36
Codespaces compute	8 core	1 hour	8	\$0.72
Codespaces compute	16 core	1 hour	16	\$1.44
Codespaces compute	32 core	1 hour	32	\$2.88
Codespaces storage	Storage	1 GB-month	Not applicable	\$0.07