

Devs Challenge:

Workshop sobre Github Copilot



Lola Villalobos :
David Oliveros:
Mariano de la Fuente:

✉ lola.villalobos@tokiota.com
✉ david.oliveros@tokiota.com
✉ mariano.delafuente@tokiota.com

in linkedin.com/in/lolavillalobosortiz
in linkedin.com/in/davidoliveros23
in linkedin.com/in/mdelafuente-es

Enjoy the journey!

Agenda

18:00 Check-In

18:30 Bienvenida y presentación

18:45 Demo casos de uso ¡Código en directo!

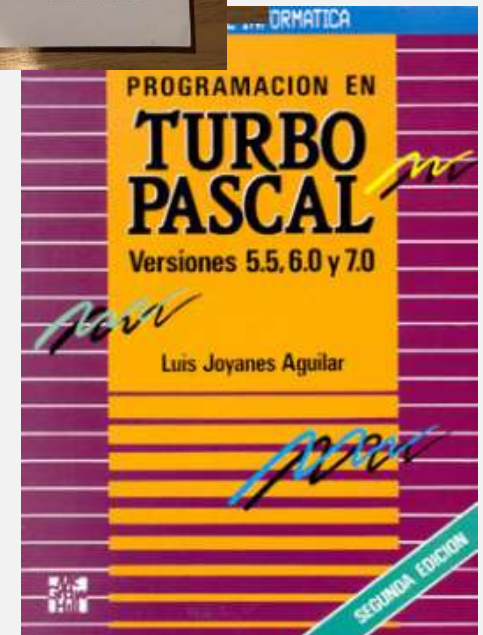
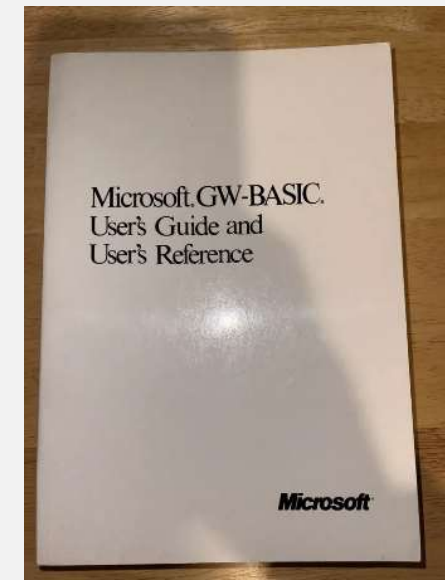
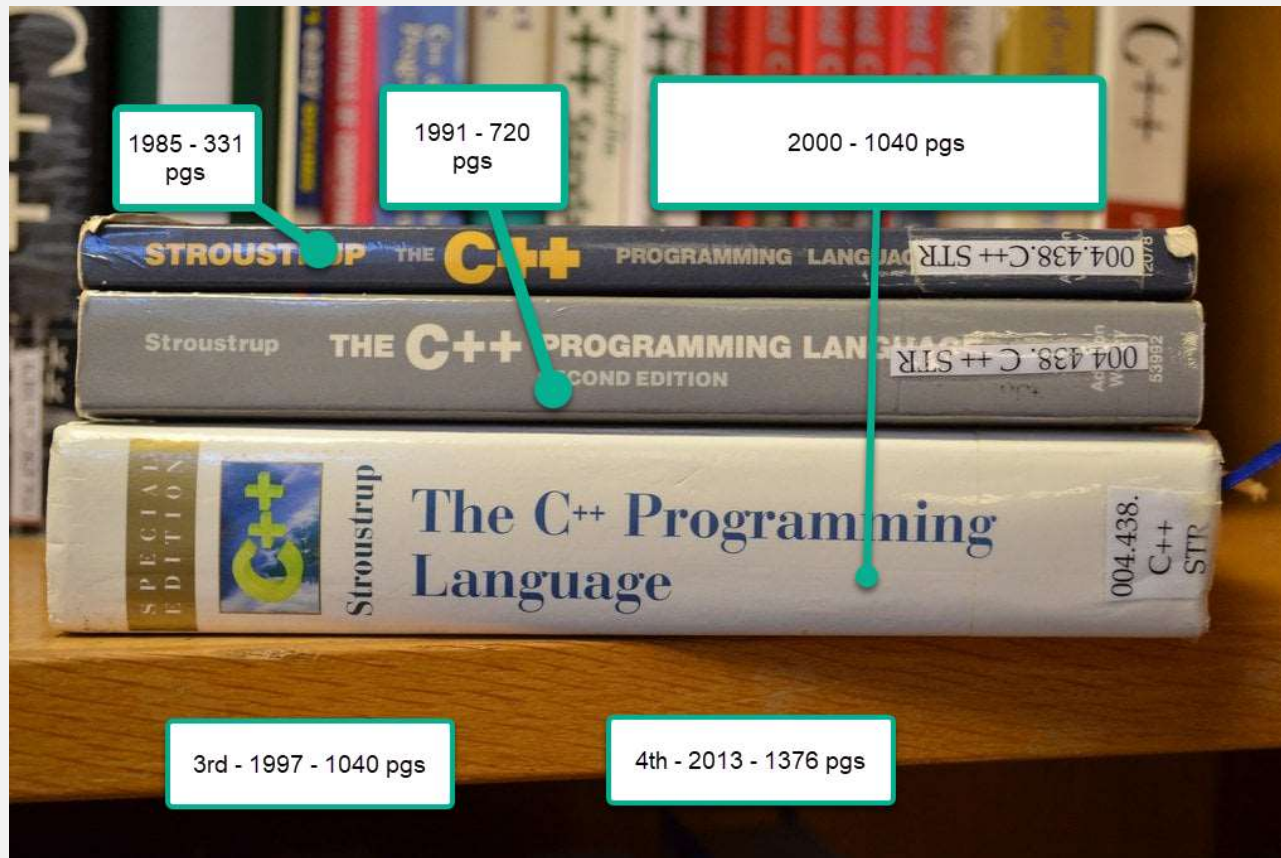
20:00 Reto GitHub Copilot ¡Tu turno!

21:30 Final del reto y cierre

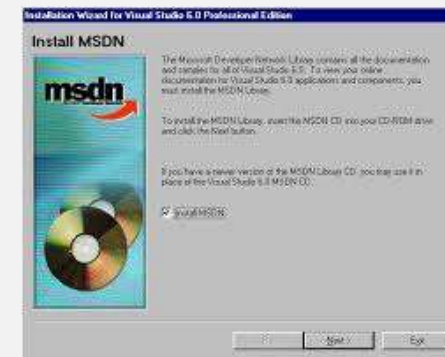
Introducción



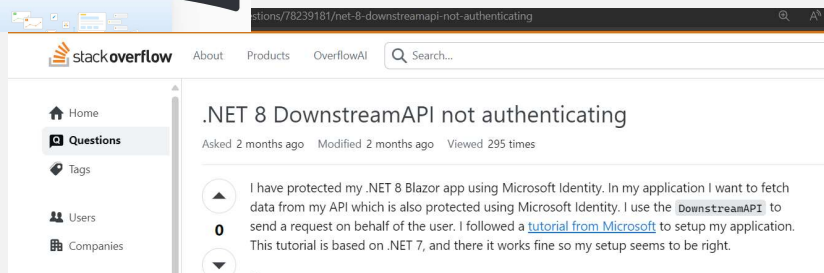
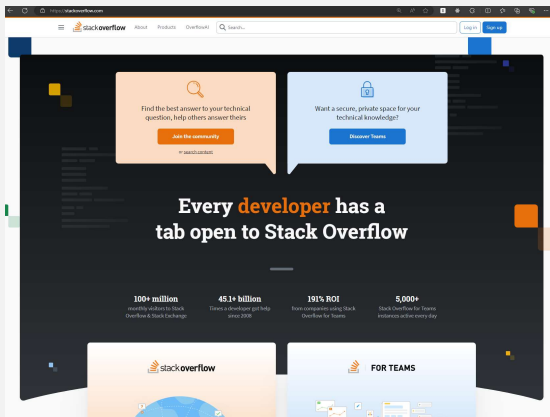
No hace tanto tiempo.....



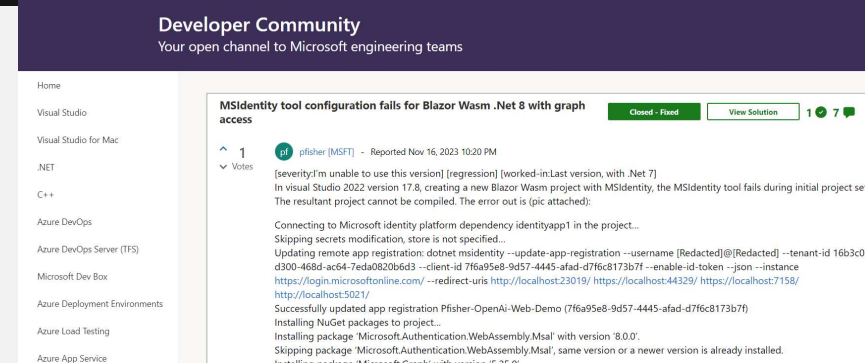
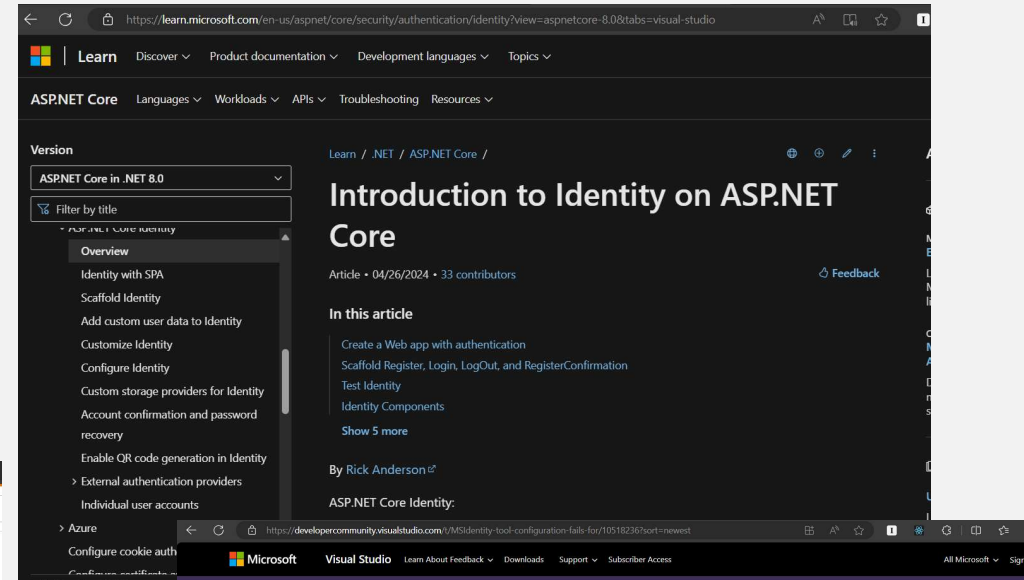
Hace algo menos.....



Hace...un par de días



```
tokenHandler.DefaultMapInboundClaims = false;
services.AddAuthentication(OpenIdConnectDefaults.AuthenticationScheme)
    .AddMicrosoftIdentityWebApp(builder.Configuration)
    .TokenAcquisitionToCallDownstreamApi(
        string[] {
            builder.Configuration.GetSection("DownstreamApi:Scopes:Read").Get<string>(),
            builder.Configuration.GetSection("DownstreamApi:Scopes:Write").Get<string>()
        }
    );
builder.Services.AddDownstreamApi("DownstreamApi", builder.Configuration.GetSection("DownstreamApi:Scopes:Read").Get<string>());
builder.Services.AddMemoryTokenCaches();
builder.Services.AddAuthenticationWithHttpClient();
```



Ayer



```
getBeer(): void {  
  const id = Number(this.route.snapshot.paramMap.get('id'));  
  this.beerService.getBeer(id).subscribe(beer => this.beer = beer);  
}  
  
updateBeer(): void {  
  this.beerService.updateBeer(this.beer).subscribe(() => this.getBeer());  
}
```

```
constructor(  
  private route: ActivatedRoute,  
  private beerService: BeerService  
) {}  
  
ngOnInit(): void {  
  this.getBeer();  
}  
  
getBeer(): void {  
  // ...  
}
```

/explain what's the current route's snapshot?

mdelafuente-tokiota-es

/explain

GitHub Copilot

> Used 1 reference

The selected code snippet is written in TypeScript and is part of an Angular project. Let's break it down step by step to understand what it does.

1. `this.route.snapshot.paramMap.get('id')`: This line retrieves the value of the 'id' parameter from the current route's snapshot. In Angular, the `ActivatedRoute` provides access to information about a route.

Open Source Product

Introducing GitHub Copilot: your AI pair programmer

Today, we're launching a technical preview of GitHub Copilot, a new AI pair programmer that helps you write better code.

Author



Nat Friedman

June 29, 2021



Today, we are launching a technical preview of [GitHub Copilot](#), a new AI pair programmer that helps you write better code. GitHub Copilot draws context from the code you're working on, suggesting whole lines or entire functions. It helps you

We do newsletters, too

Get tips, technical guides, and practices right in your inbox

CHAT

GitHub Copilot

Hi @mdelafuente-tokiota-es, how can I help you?

mdelafuente-tokiota-es

Can you highlight the improvements provided by version 17 of angular?

GitHub Copilot

Angular version 17 introduces several improvements and new features aimed at enhancing the developer experience, performance, and the framework's capabilities. Here are some of the key highlights:

1. **Strictly Typed Forms**: Angular 17 introduces more strictly typed forms, improving type checking and making forms safer and easier to work with by catching errors at compile time.
2. **Improved Performance**: Enhancements in change detection and rendering processes to boost application performance, making Angular apps faster and more efficient.
3. **Standalone Components**: This version is expected to further embrace the concept of standalone components, reducing the need for NgModules and simplifying the development process by allowing components to be more independent.
4. **Enhanced Developer Experience**: Improvements in the Angular Language Service provide better code completion, error checking, and hints directly in the IDE, making the development process smoother and faster.
5. **Improved Debugging**: Enhanced debugging capabilities make it easier to diagnose and fix issues within Angular applications.
6. **Updates to Angular Material**: New components and improvements to existing components in Angular Material, providing more options for building beautiful and functional UIs.
7. **Better Accessibility**: Continued focus on making Angular applications more accessible, with improvements to common components and utilities to support accessibility best practices.
8. **Easier Updates**: Improvements to the Angular CLI to make updating Angular applications and more reliable, reducing the effort required to stay up to date with the latest Angular version.

What are some best practices for organizing Angular projects with standalone components?

GitHub Copilot Metrics API now available in public beta

April 23, 2024

Copilot Extensions now in Limited Public Beta

May 21, 2024

[copilot](#)

GitHub Copilot is now available to individual developers

June 21, 2022

GitHub Copilot Chat and pull request summaries are now powered by GPT-4o

July 31, 2024

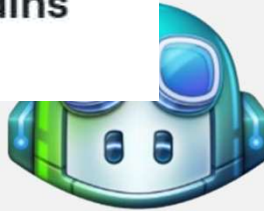
Copilot Enterprise

Conversational, customized
your codebase

Hoy

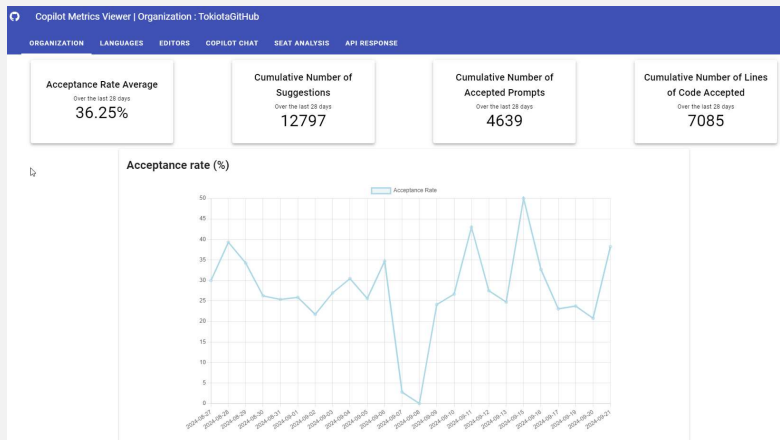
Inline Chat is now available in GitHub Copilot in JetBrains

September 11, 2024



Enhancing the GitHub Copilot ecosystem with Copilot Extensions, now in public beta

Whether you're an individual developer looking to streamline your workflow or an organization aiming to integrate proprietary tools, GitHub Copilot Extensions now offers a platform to make that happen and to share your creations on the GitHub Marketplace.

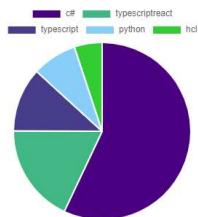


Custom models for GitHub Copilot are now in Limited Public Beta

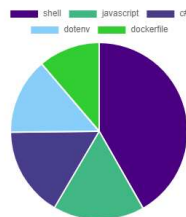
August 27, 2024

Number of Languages
Over the last 28 days
23

Top 5 Languages by accepted prompts



Top 5 Languages by acceptance rate



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what is the latest version of angular

GitHub Copilot

> Used 1 reference

As of my last update in October 2023, the latest version of Angular is Angular 16. For the most current version, please check the official Angular website or the [Angular GitHub releases page](#).

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@github what is the latest version of angular?

GitHub

> Used 2 references

The latest version of Angular is [18.2.5](#), released on September 18, 2024.

¿Mañana?



Try out OpenAI o1 in GitHub Copilot and Models

OpenAI o1-preview and o1-mini are now available in GitHub Copilot Chat in VS Code and in the GitHub Models playground.

Mario Rodríguez · @mariorod

September 19, 2024 | 2 minutes

Product

GitHub Copilot Workspace: Welcome to the Copilot-native developer environment

We're redefining the developer environment with GitHub Copilot Workspace - where any developer can go from idea, to code, to software all in natural language.

<https://github.blog/2024-04-29-github-copilot-workspace/>

<https://githubnext.com/projects/copilot-workspace>



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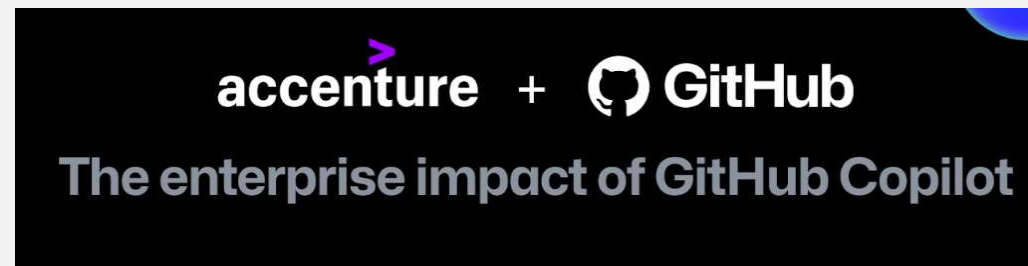
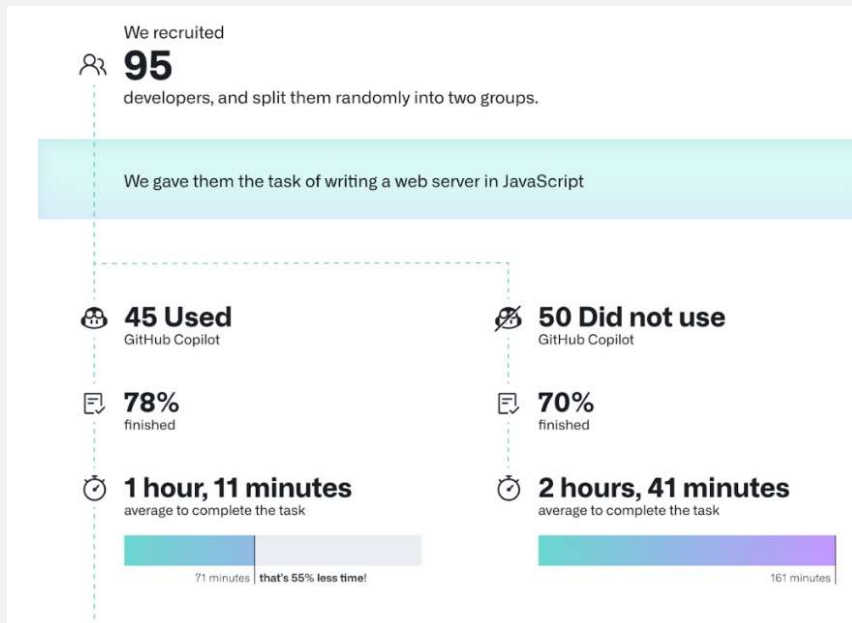
View all sessions >

<https://githubuniverse.com/#tickets>

Estudios

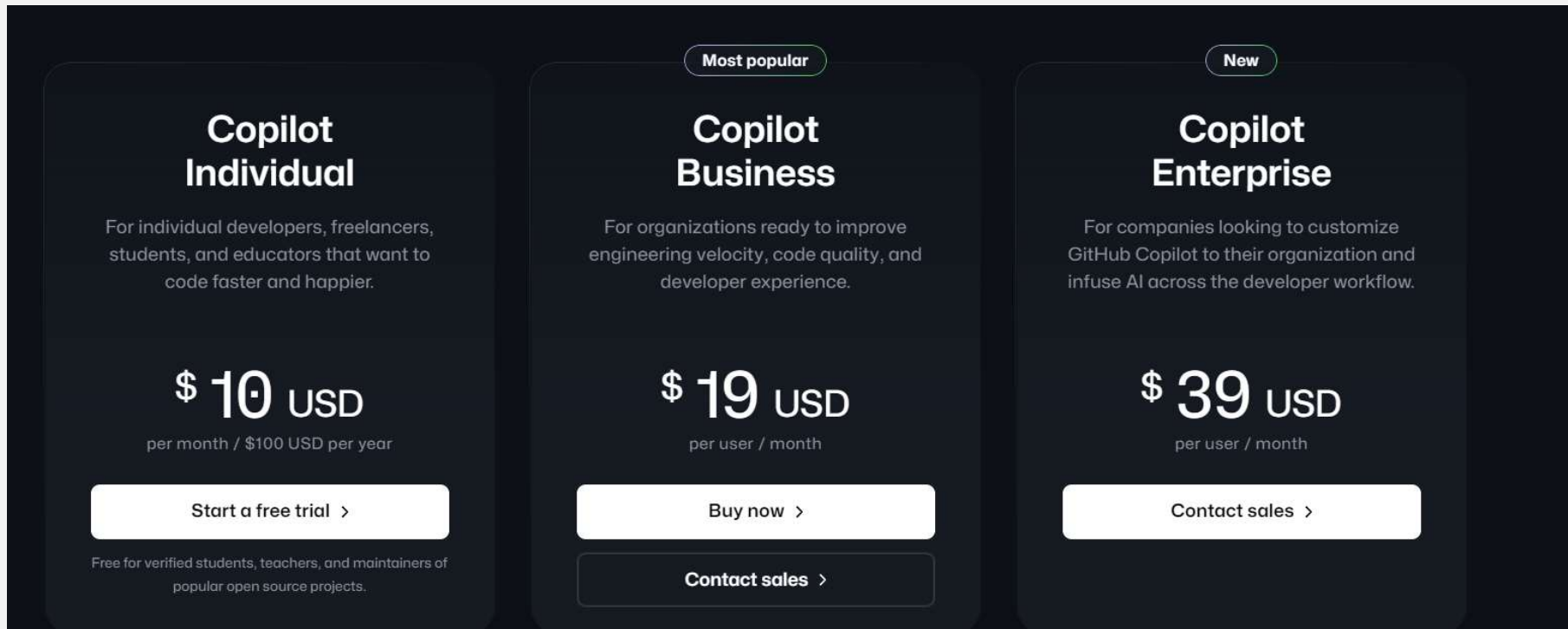
<https://github.blog/2022-09-07-research-quantifying-github-copilots-impact-on-developer-productivity-and-happiness/>

<https://arxiv.org/abs/2402.05636>



<https://github.blog/2024-05-13-research-quantifying-github-copilots-impact-in-the-enterprise-with-accenture/>

Licenciamiento



The image shows a dark-themed pricing page for GitHub Copilot. It features three main cards: Copilot Individual, Copilot Business (marked 'Most popular'), and Copilot Enterprise (marked 'New'). Each card includes a description, a price in USD, and a call-to-action button. The Copilot Individual card also includes a note about a free trial for students and teachers.

Plan	Target Audience	Price (USD)	Frequency	Call to Action
Copilot Individual	Individual developers, freelancers, students, and educators	\$10	per month / \$100 USD per year	Start a free trial >
Copilot Business	Organizations ready to improve engineering velocity, code quality, and developer experience	\$19	per user / month	Buy now > Contact sales >
Copilot Enterprise	Companies looking to customize GitHub Copilot to their organization and infuse AI across the developer workflow	\$39	per user / month	Contact sales >

<https://github.com/features/copilot/plans>

Experiencia GitHub Platform

End to end developer experience

Code and IDEs



Pipelines
and automation



Cloud platform



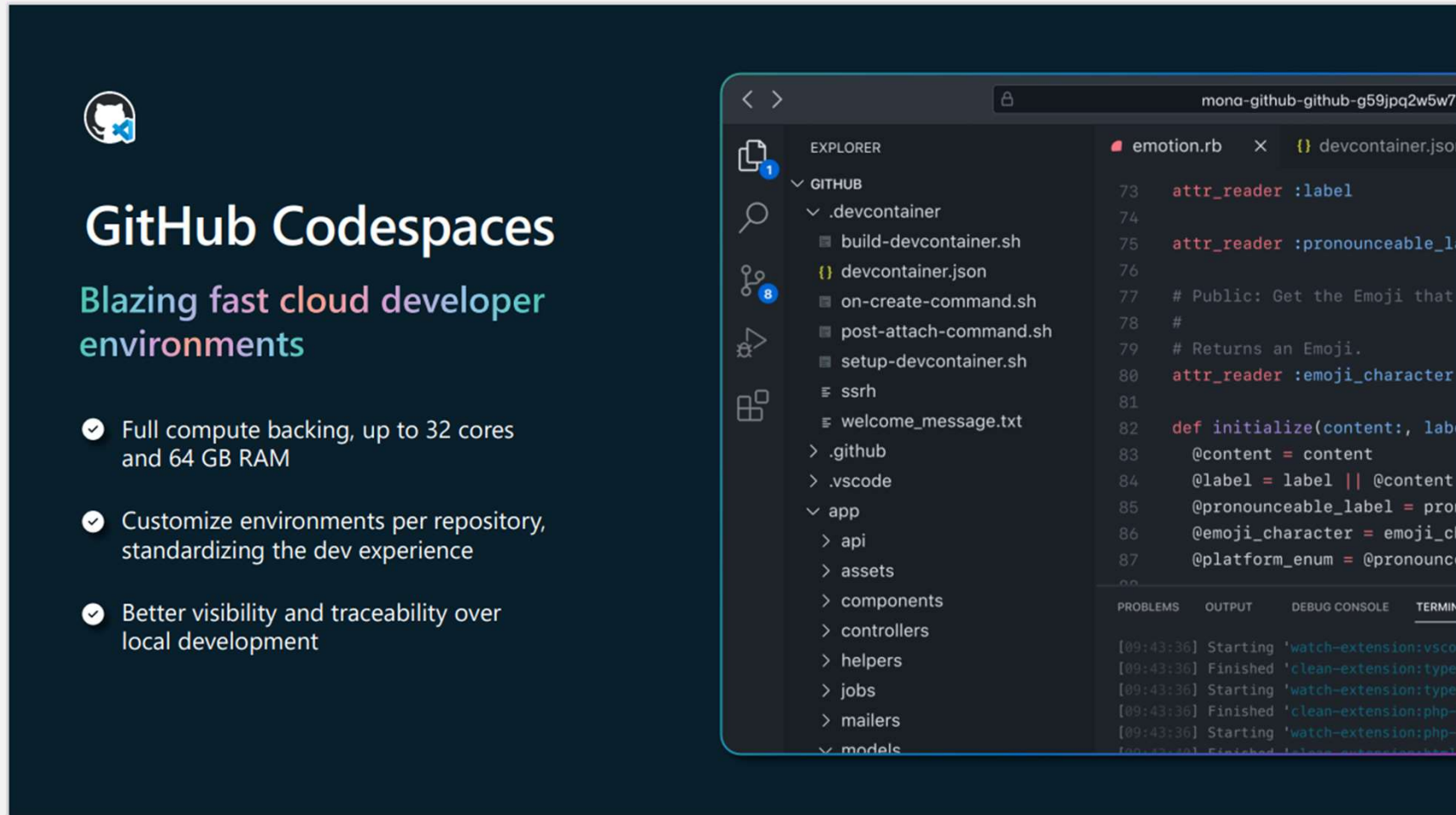
Any developer • Any language




GitHub Copilot

<https://github.com/features>

GitHub Codespaces



The screenshot displays the GitHub Codespaces environment. On the left, a dark blue sidebar contains the GitHub logo and the text "GitHub Codespaces" in white. Below this, it says "Blazing fast cloud developer environments" in a colorful font. Three bullet points with checkmarks describe the features: "Full compute backing, up to 32 cores and 64 GB RAM", "Customize environments per repository, standardizing the dev experience", and "Better visibility and traceability over local development". On the right, a VS Code editor window is shown with a file explorer on the left and a code editor on the right. The file explorer shows a directory structure with files like "build-devcontainer.sh", "devcontainer.json", "on-create-command.sh", "post-attach-command.sh", "setup-devcontainer.sh", "ssrh", and "welcome_message.txt". The code editor shows a Ruby file named "emotion.rb" with lines of code including "attr_reader :label", "attr_reader :pronounceable_label", and a "def initialize" method.



GitHub Codespaces

Blazing fast cloud developer environments

- ✓ Full compute backing, up to 32 cores and 64 GB RAM
- ✓ Customize environments per repository, standardizing the dev experience
- ✓ Better visibility and traceability over local development

EXPLORER

- ✓ GITHUB
 - ✓ .devcontainer
 - build-devcontainer.sh
 - {} devcontainer.json
 - on-create-command.sh
 - post-attach-command.sh
 - setup-devcontainer.sh
 - ssrh
 - welcome_message.txt
 - > .github
 - > .vscode
 - ✓ app
 - > api
 - > assets
 - > components
 - > controllers
 - > helpers
 - > jobs
 - > mailers
 - ✓ models

emotion.rb

```
73 attr_reader :label
74
75 attr_reader :pronounceable_label
76
77 # Public: Get the Emoji that
78 #
79 # Returns an Emoji.
80 attr_reader :emoji_character
81
82 def initialize(content:, label=
83   @content = content
84   @label = label || @content
85   @pronounceable_label = pron
86   @emoji_character = emoji_ch
87   @platform_enum = @pronounce
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

```
[09:43:36] Starting 'watch-extension:vscode
[09:43:36] Finished 'clean-extension:types
[09:43:36] Starting 'watch-extension:types
[09:43:36] Finished 'clean-extension:php-
[09:43:36] Starting 'watch-extension:php-
[09:43:36] Finished 'clean-extension:php-
```

<https://github.com/features/codespaces>

GitHub Advanced Security Capabilities

Code Scanning

Static analysis of every pull request, integrated into the developer workflow and powered by CodeQL

Secret Scanning

Automatic notifications of any API tokens or other secrets exposed anywhere in your git history

Supply Chain Security

Secure the open source dependencies your applications rely on

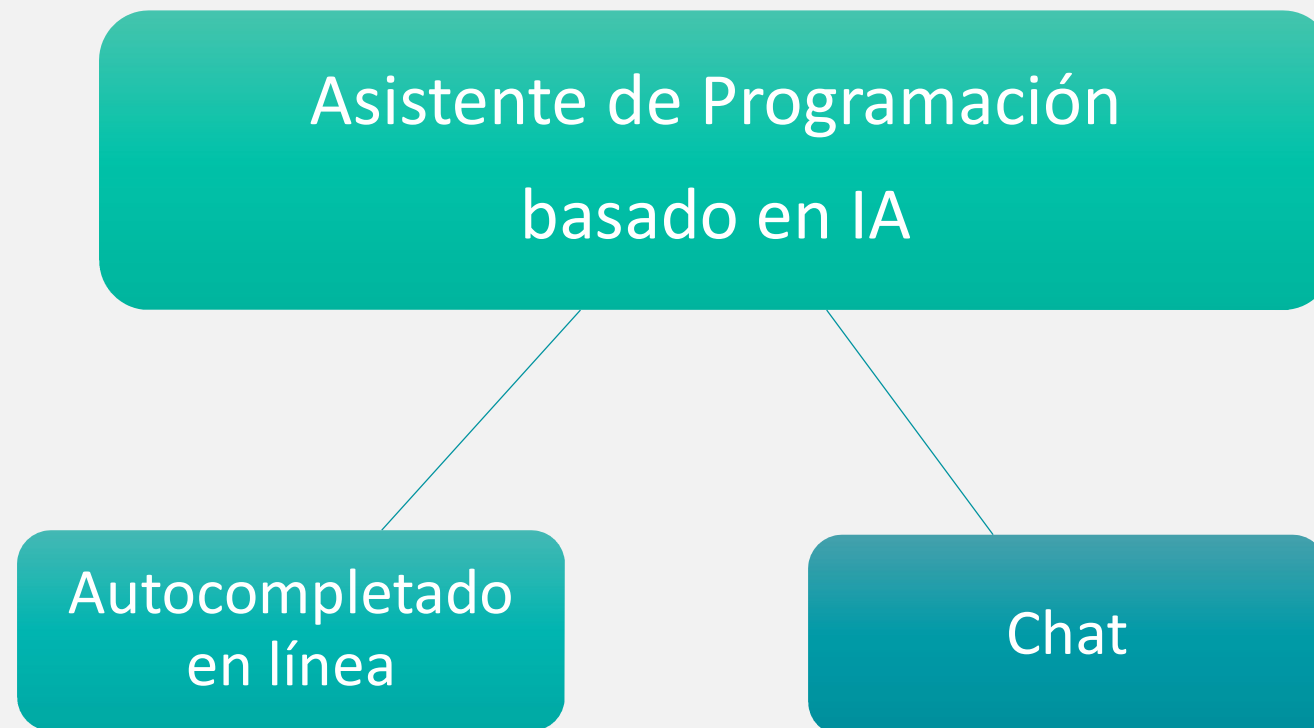
GitHub Advanced Security



¡Vamos con la demo!



Qué es Copilot



Qué hace



Qué NO hace



Requisitos

Licencia de GitHub Copilot

Visual Studio (2022 o sup.)

Versión 17.9 o ant.

- GitHub Copilot Completions (by GitHub)
- GitHub Copilot Chat (by Microsoft)

Versión 17.10 o sup.

- Instalador

Visual Studio Code

GitHub Copilot (by GitHub)

GitHub Copilot Chat (by GitHub)

Cómo empezar a usarlo

Visual Studio

En línea

Ctrl + Alt + Enter (abrir ventana)
Ctrl + Alt + 9 (abrir sugerencia)
Tab (aceptar sugerencia)
Alt + . (siguiente sugerencia)

Chat

Abrir chat:

- View -> GitHub Copilot Chat
- Ctrl + 9,C

Y empezar a escribir

Cómo empezar a usarlo

Visual Studio Code

En línea

Ctrl + Enter (abrir ventana)
Alt + \ (abrir sugerencia)
Tab (aceptar)
Alt +] (siguiente sugerencia)
Alt + [(anterior sugerencia)

Chat

Disponible en barra izquierda

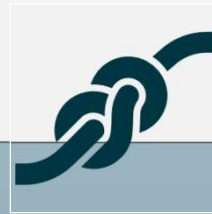
Ctrl + i (abrir chat en línea)

Comandos del chat

Visual Studio



/doc
/explain
/fix
/optimize
/help
/test



#[nombre de fichero o proyecto]

Comandos del chat

Visual Studio Code



@terminal
@vscode
@workspace
@github

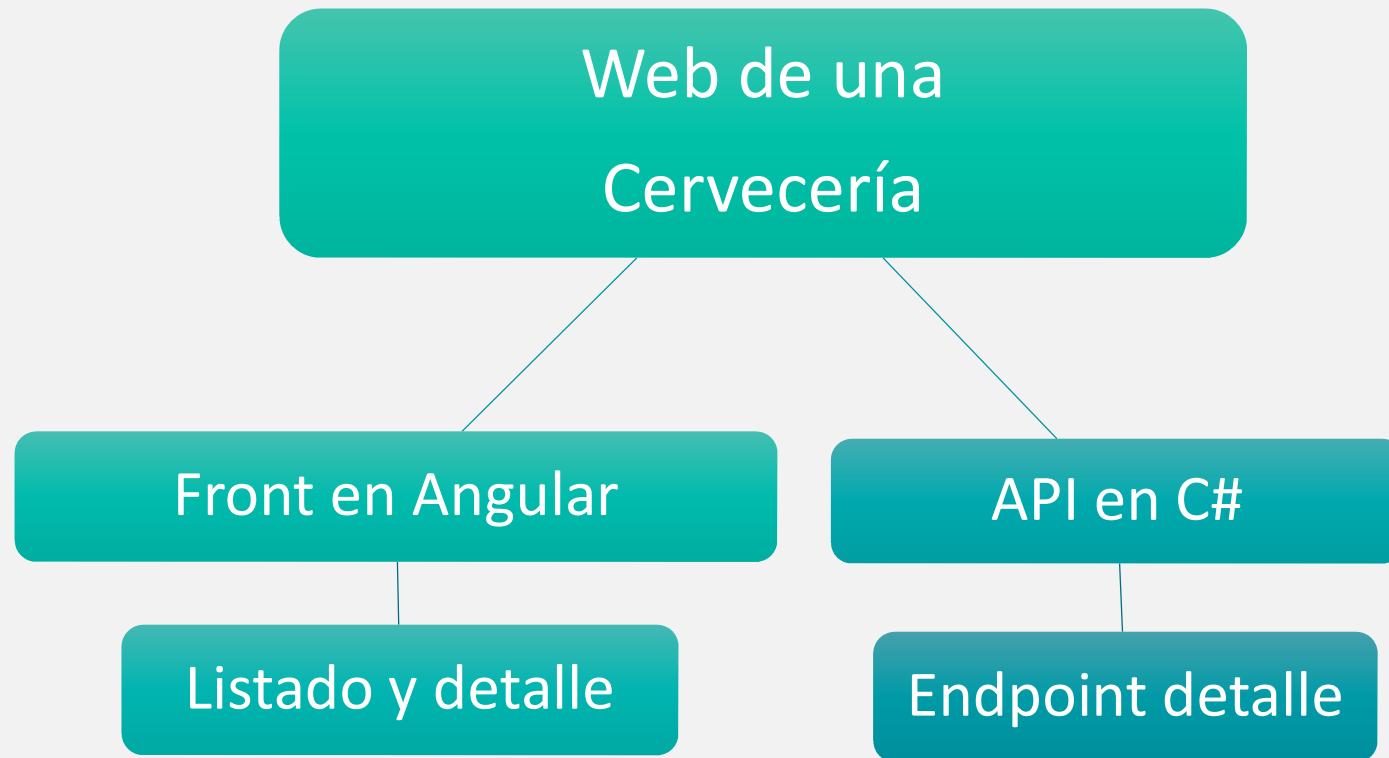


/explain
/api
/search
/fix
/new
/newNotebook
/tests
/help
/clear



#file:[nombre fichero]
#editor
#selection
#terminalLastComand
#terminalSelection

Qué haremos




Front

Nombre	Lema	APV	Primera Producción	Actions
Buzz	A Real Bitter Experience.	4.5	09/2007	Delete
Trashy Blonde	You Know You Shouldn't	4.1	04/2008	Delete
Berliner Weisse With Yuzu - B-Sides	Japanese Citrus Berliner Weisse.	4.2	11/2015	Delete
Pilsen Lager	Unleash the Yeast Series.	6.3	09/2013	Delete
Avery Brown Dredge	Bloggers' Imperial Pilsner.	7.2	02/2011	Delete
Electric India	Vibrant Hoppy Saison.	5.2	05/2013	Delete
AB 12	Imperial Black Belgian Ale.	11.2	07/2012	Delete
Fake Lager	Bohemian Pilsner.	4.7	03/2013	Delete
AB 07	Whisky Cask-Aged Scotch Ale.	12.5	03/2010	Delete
Bramling X	Single Hop IPA Series - 2011.	7.5	01/2011	Delete
Misspent Youth	Milk & Honey Scotch Ale.	7.3	04/2013	Delete
Arcade Nation	Seasonal Black IPA.	5.3	12/2015	Delete
Moustache	Moustache-Worthy Beer.	4.5	11/2009	Delete
Aloha Dog	Existential Red Ale.	4.5	02/2010	Delete
Mixtape II	An Epic Fusion Of Old Belgian, American New Wave, And Scotch Whisky.	14.5	01/2012	Delete
Libertine Porter	Dry-Hopped Aggressive Porter.	6.1	01/2012	Delete

Trashy Blonde

You Know You Shouldn't

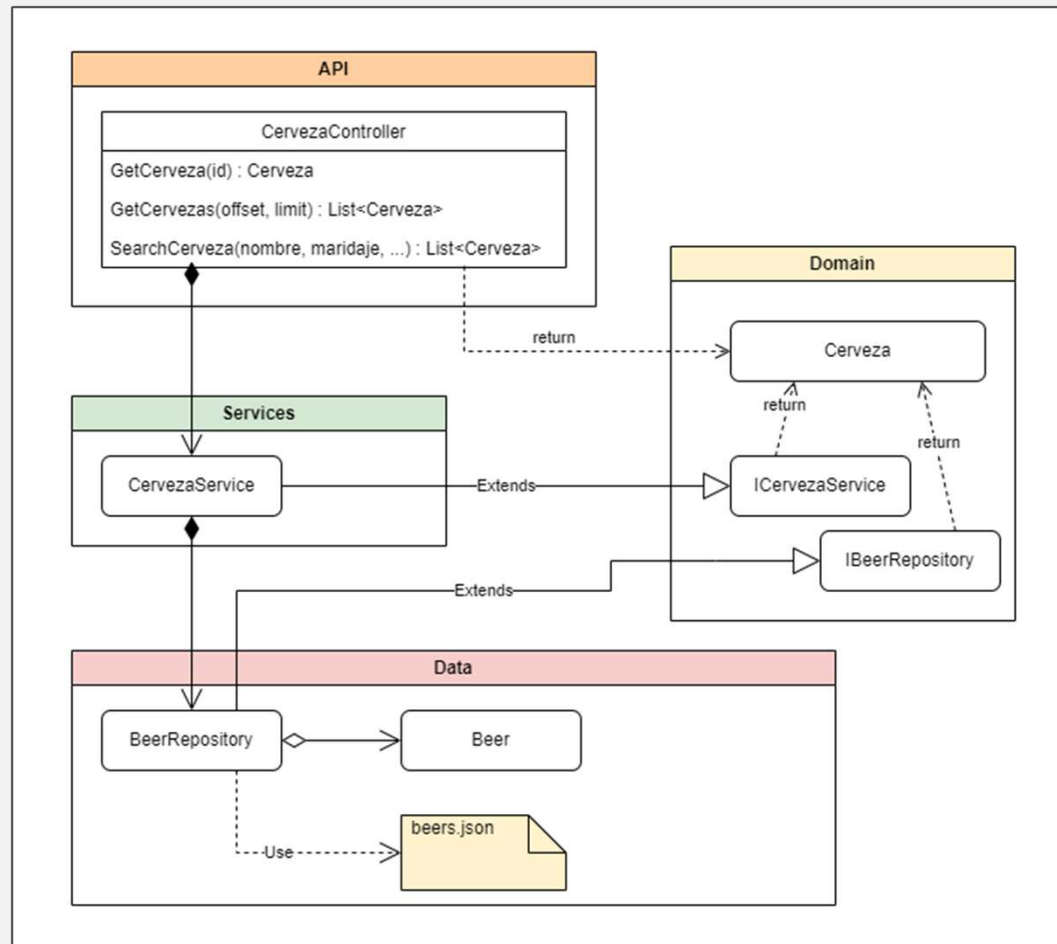


4.1

04/2008

A titillating, neurotic, peroxide punk of a Pale Ale. Combining attitude, style, substance, and a little bit of low self esteem for good measure: what would your mother say? The seductive lure of the sassy passion fruit hop proves too much to resist. All that is even before we get onto the fact that there are no additives, preservatives, pasteurization or strings attached. All wrapped up with the customary BrewDog bite and imaginative twist.

Estructura API



Empecemos...



Casos de uso

- Crea la estructura de un proyecto
- Explicar código
- Documentar
- Refactorizar Código
- Añadir nuevo código
- Testing
- Diagnosticar errores
- Desplegar el código en la nube

Resumen

Cuándo usar Copilot

Pereza

Dificultad

Investigar

Dudas

Prisas



Cómo usarlo



Espíritu crítico

¡Empezamos el reto!



Reto

Back	Front
<p>Hacer el Back desde cero, en c# o en un cualquier otro lenguaje de tu elección.</p> <p>Completar la API con borrado, actualización y creación.</p> <p>Añadir Swagger.</p> <p>Documentar clases principales.</p> <p>Realizar tests unitarios.</p> <p>Pasar campo food-pairing a archivos de recursos, dejando en el json los ids de referencia.</p> <p>Pasar de json a base de datos.</p>	<p>Hacer el Front desde cero, en Angular o cualquier otro lenguaje de tu elección.</p> <p>Implementar la paginación.</p> <p>Añadir un buscador para filtrar cervezas (endpoint SearchBeer).</p> <p>Añadir opciones de borrado, actualización y creación (no existen en la API).</p> <p>Hacer tests unitarios.</p> <p>Migrar a React u otra tecnología.</p> <p>Cambiar los estilos y embellecer la página.</p>

Recursos

WIFI: Tokiota_invitados / Tokiototal234?

Código

- Repo: <https://github.com/TokiotaGithub/GithubCopilot>
- Api desplegada por si trabajas solo con el front:
 - <https://wcpilotapi.azurewebsites.net>
 - Swagger: <https://wcpilotapi.azurewebsites.net/swagger/index.html>
- Front desplegado de ejemplo atacando al api anterior:
 - <https://wcpilotfront.azurewebsites.net>

Thanks & Enjoy the Journey!



Lola Villalobos

lola.villalobos@tokiota.com

[linkedin.com/in/lolavillalobosortiz](https://www.linkedin.com/in/lolavillalobosortiz)

David Oliveros

david.oliveros@tokiota.com

[linkedin.com/in/davidoliveros23](https://www.linkedin.com/in/davidoliveros23)

Mariano de la Fuente

mariano.delafuente@tokiota.com

[linkedin.com/in/mdelafuente-es](https://www.linkedin.com/in/mdelafuente-es)