



# AZURE DAY ROME 2024



## AI for Cloud Developers: GitHub Copilot and Azure Copilot to the Rescue



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AZURE DAY

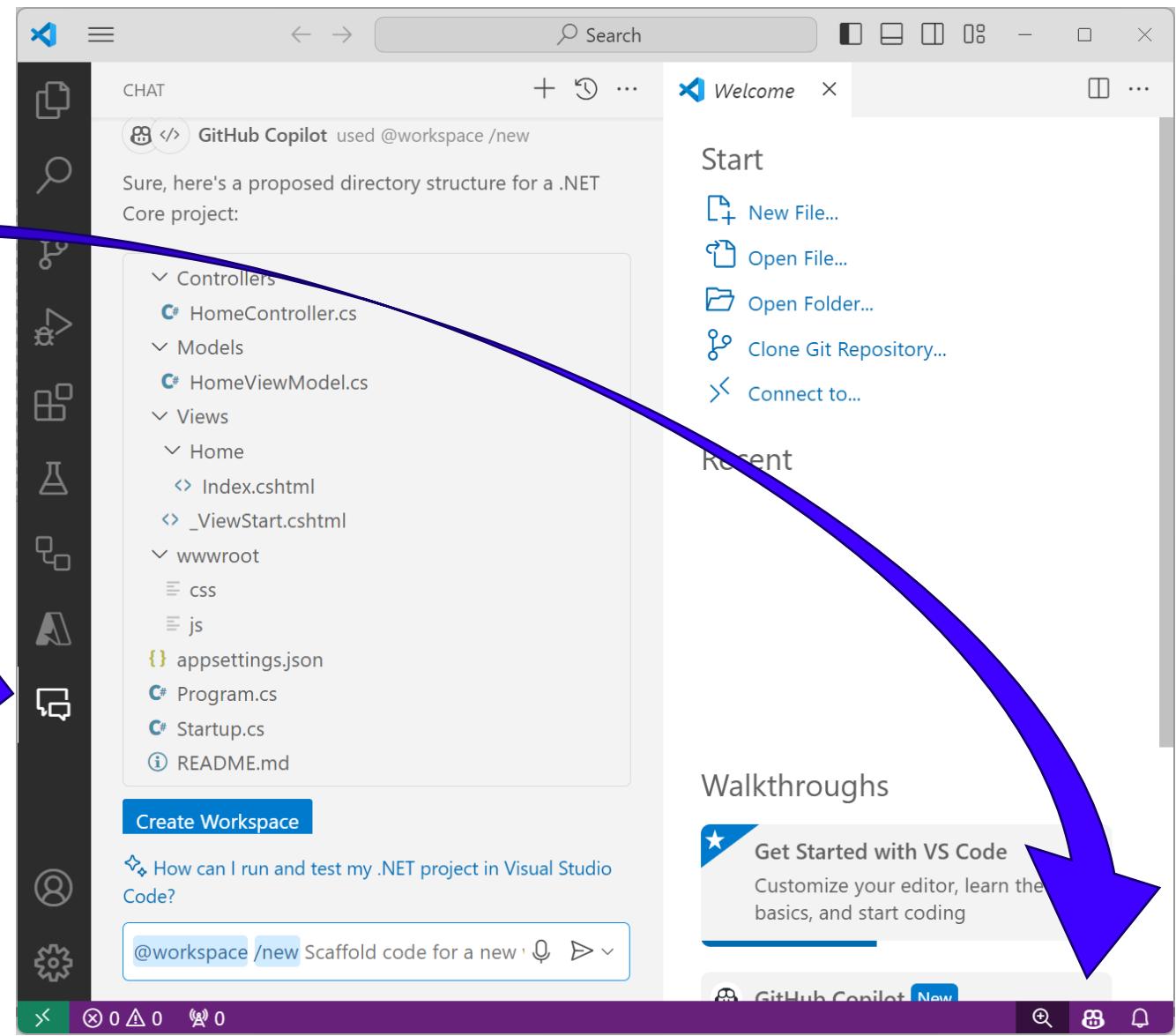
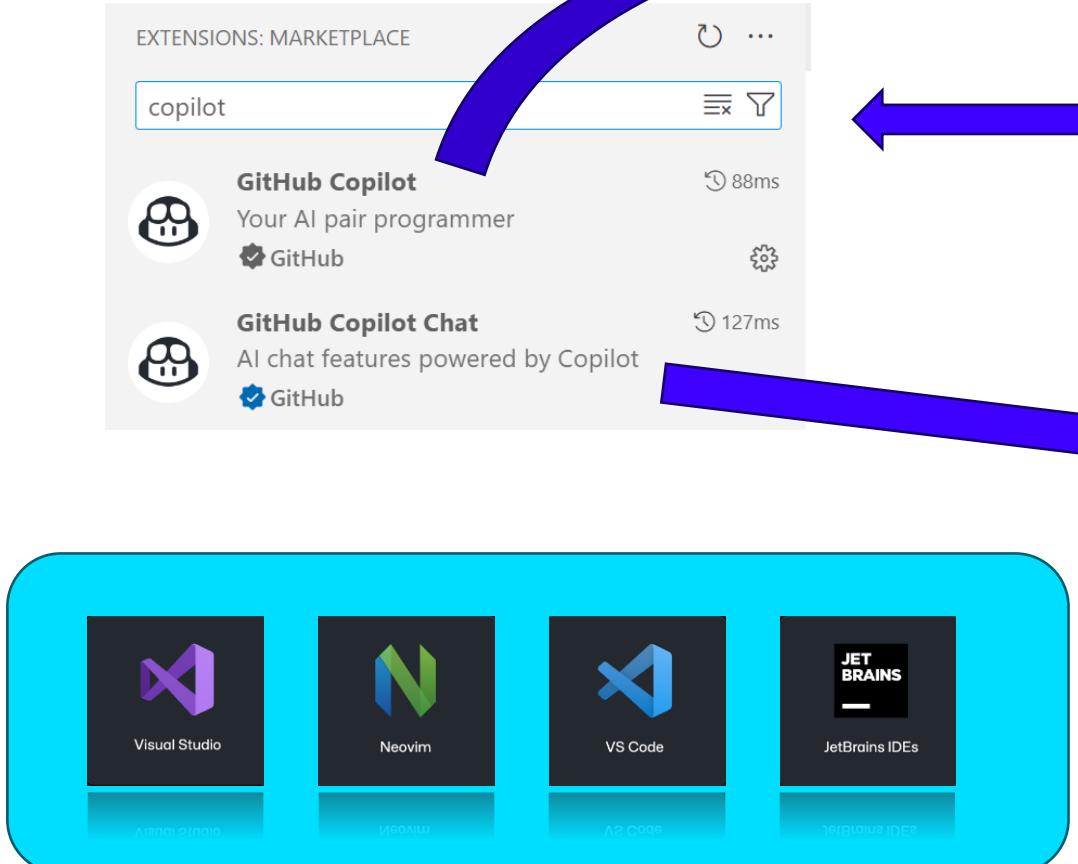
# Thanks to



# GitHub Copilot



# Copilot in Your IDE



# How to Start with Copilot

## Visual Studio Code Editing evolved

### Start

New File...

Open File...

Open Folder...

Clone Git Repository...

Connect to...

### Documents

### Walkthroughs

Get Started  
Customize  
coding

GitHub Co

Learn the

The screenshot shows the Visual Studio Code interface with the GitHub Copilot welcome screen open. The top navigation bar includes File, Edit, Selection, View, ..., and a search bar. The left sidebar has icons for file operations like New File, Open File, and Open Folder, along with GitHub and Git icons. The main content area is titled "GitHub Copilot" with the subtitle "Your AI pair programmer to write code faster and with less work". A central callout box highlights "AI-powered suggestions" and "Prompts in comments". It also features a "Getting started videos" button. Below this, there are five circular icons representing different features: Chat with Copilot, Harness the power of context, You are in control, and Powered by your creativity. To the right, three examples demonstrate Copilot's capabilities: suggesting code as you type, implementing function signatures from comments, and prompting with specific instructions.

GitHub Copilot

Your AI pair programmer to write code faster and with less work

- AI-powered suggestions
- Prompts in comments
- Chat with Copilot
- Harness the power of context
- You are in control
- Powered by your creativity

As you type Copilot will suggest lines of code

```
const now = new Date();
const weekDay = now.getDay();
```

Get full implementation from function signatures and interfaces

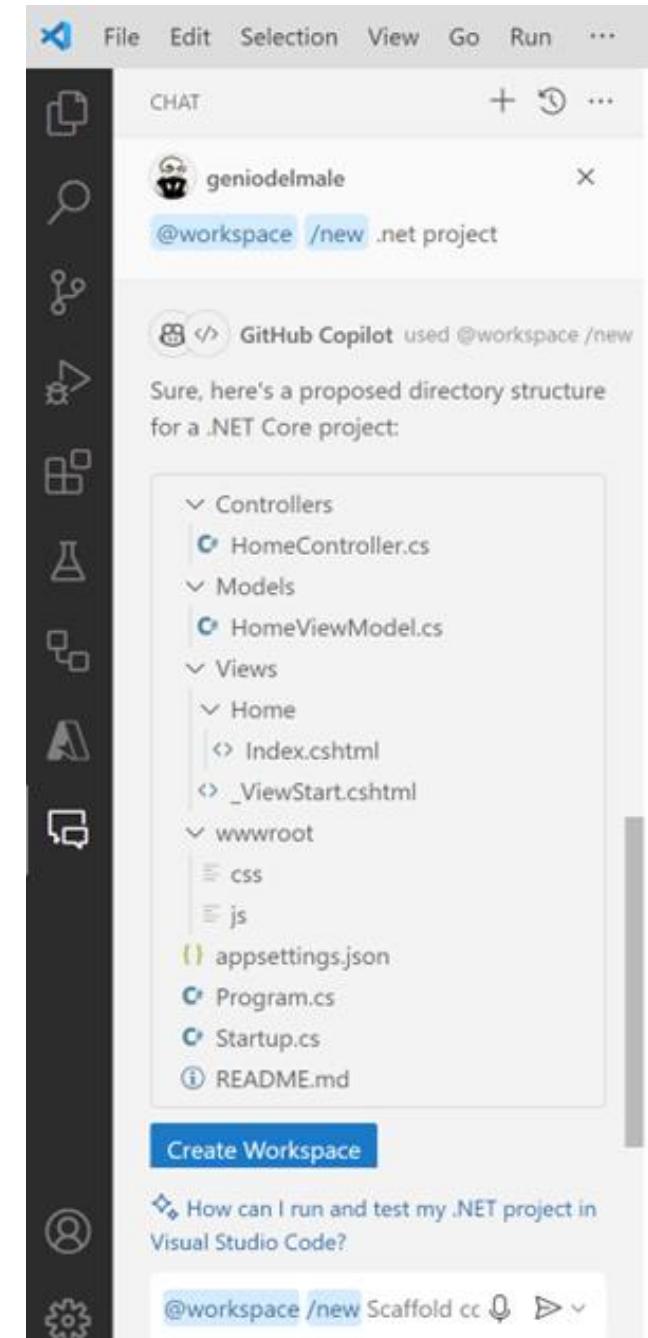
```
function daysAgo(from: Date, to?: Date): number {
  to = to || new Date();
  const diff = to.getTime() - from.getTime();
  return Math.floor(diff / (1000 * 60 * 60 * 24));
}
```

Prompt Copilot with specific instructions in comments

```
# Load survey and clean up data
survey = pd.read_csv('survey.csv')
survey = survey.dropna()
survey.head()
```

# Working in a project level

Type `/` command in GitHub Copilot Chat to start with a new project



# Writing Code...

The screenshot shows the Microsoft Visual Studio Code interface. On the left is a sidebar with various icons. The main area has a Chat tab open, showing a message from 'geniodelmale' asking for a 'Util.cs' class. Below the Chat is a GitHub Copilot suggestion for a 'Util.cs' class with a 'Sum' method. The code editor on the right shows two files: 'Util.cs' and 'UtilTests.cs'. 'Util.cs' contains the following code:

```
public class Util
{
    public static int Sum(int num1, int num2)
    {
        return num1 + num2;
    }
}
```

A context menu is open over the code, with the 'Insert into New File' option highlighted.

```
public static int Multiply(int num1, int num2)
{
    return num1 * num2;
}
```

The GitHub Copilot message continues below the code editor:

This class contains a static method `Sum` that takes two integers as parameters and returns their sum. You can use this method anywhere in your project by calling `Util.Sum(num1, num2)`.

At the bottom, there's a question: "How can I call the sum method from the Util class in my .NET project?"

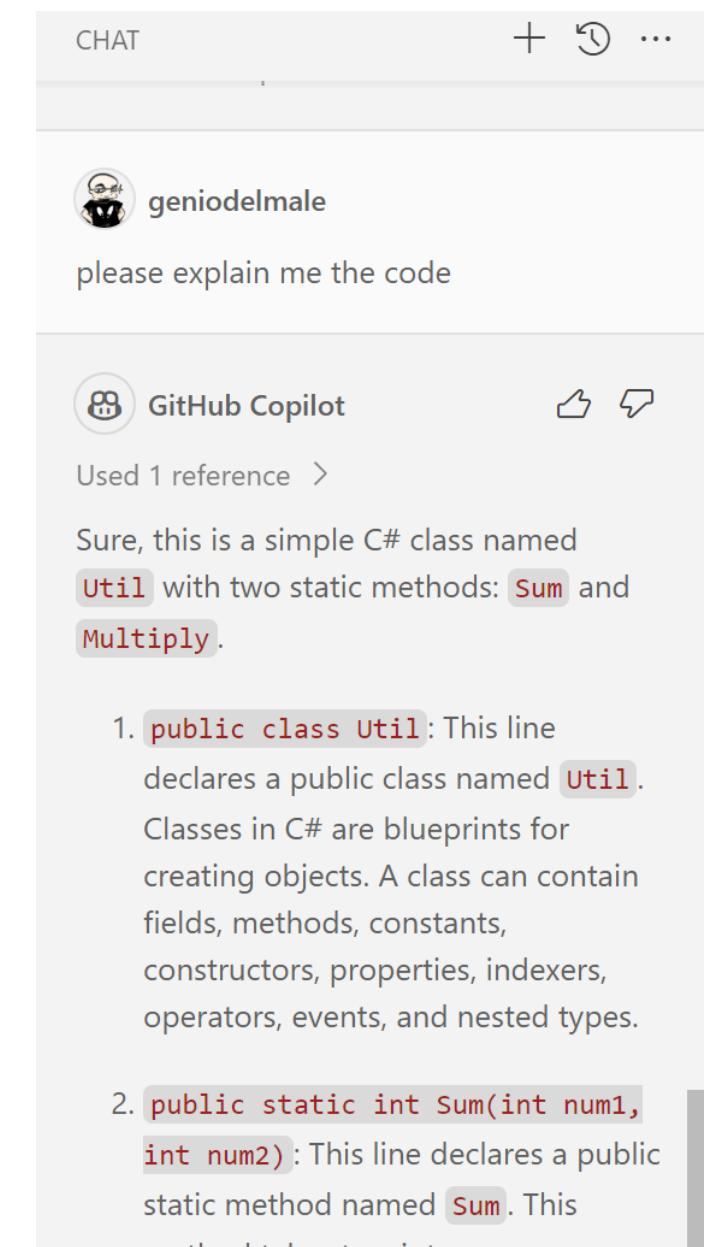
# ...Tests, and more...

The screenshot shows a code editor interface with a sidebar containing icons for file operations like Open, Save, and Undo. The main window has a title bar with tabs for "Util.cs" and "UtilTests.cs". A search bar at the top right contains the text "my-dotnet-app". The "UtilTests.cs" tab is active, showing the following C# code:

```
1  using NUnit.Framework;
2
3  [TestFixture]
4  public class UtilTests
5  {
6      [Test]
7      public void Sum_TwoPositiveNumbers_ReturnsCorrectSum()
8      {
9          int result = Util.Sum(5, 7);
10         Assert.AreEqual(12, result);
11     }
12
13     [Test]
14     public void Sum_NegativeAndPositiveNumber_ReturnsCorrectSum()
15     {
16         int result = Util.Sum(-3, 7);
17         Assert.AreEqual(4, result);
18     }
19
20     [Test]
21     public void Sum_TwoNegativeNumbers_ReturnsCorrectSum()
22     {
23         int result = Util.Sum(-3, -7);
24         Assert.AreEqual(-10, result);
25     }
26 }
```

In the left sidebar, there is a "CHAT" section where a user named "geniodelmale" asks, "can you create some test methods for Sum?". Below this, a "GitHub Copilot" section provides a response: "Sure, here's a simple unit test class for the `Sum` method in the `Util` class using NUnit:" followed by the generated test code.

At the bottom of the editor, a footer bar includes a link to "How can I run the unit tests for my .NET" project.



# ...Refactoring...

CHAT + ⏱ ...

 geniodelmale

please refactor the code removing static members

 GitHub Copilot

Used 1 reference >

Sure, here's your refactored `Util` class with non-static methods:

```
public class Util
{
    public int Sum(int num1, int num2)
    {
        return num1 + num2;
    }
}
```

```
public int Multiply(int num1, int num2)
{
    return num1 * num2;
}
```

Now, to use these methods, you'll need to create an instance of the `Util` class:

```
Util util = new Util();
int sum = util.Sum(3, 4);
int product = util.Multiply(3, 4);
```

# ...and Comments!

The image shows a screenshot of a software interface with a chat window on the left and a code editor on the right.

**CHAT**  
correspond to real locations or phone numbers.

geniodelmale  
can you add comments?

**GitHub Copilot**    Used 1 reference >  
Sure, here's your `Util` class with added comments:

```
public class Util
{
    // This method takes two integers as parameters and returns their sum.
    public static int Sum(int num1, int num2)
    {
        return num1 + num2;
    }

    // This method takes two integers as parameters and returns their product.
    public static int Multiply(int num1, int num2)
    {
        return num1 * num2;
    }
}
```

**C# Util.cs**    Untitled-1    C# UtilTests.cs

**C# Util.cs > Util**  
0 references

```
1  public class Util
2  {
3      // This method takes two integers as parameters and returns their sum.
4      public static int Sum(int num1, int num2)
5      {
6          return num1 + num2;
7      }
8
9      // This method takes two integers as parameters and returns their product.
10     public static int Multiply(int num1, int num2)
11     {
12         return num1 * num2;
13     }
14 }
```

# Creating Sample Data

CHAT + ⏪ ... C# Util.cs • { Untitled-1 • C# UtilTests.cs

geniodelmale  
can you create a sample json file with 10 records with Italian person names, surnames, phone numbers and addresses?

GitHub Copilot  
Used 1 reference >  
Sure, here's a sample JSON file with 10 records of Italian person names, surnames, phone numbers, and addresses:

```
[  
  {  
    "name": "Giovanni",  
    "surname": "Rossi",  
    "phone": "+39 0123 456789",  
    "address": "Via Roma, 10, 00100 Roma, Italy"  
  },  
  {  
    "name": "Maria",  
    "surname": "Bianchi",  
    "phone": "+39 0123 456788",  
    "address": "Via Milano, 20, 20100 Milano, Italy"  
  },  
  {  
    "name": "Luca",  
    "surname": "Verdi",  
    "phone": "+39 0123 456787",  
    "address": "Via Napoli, 30, 80100 Napoli, Italy"  
  },  
  {  
    "name": "Anna",  
    "surname": "Russo",  
    "phone": "+39 0123 456786",  
    "address": "Via Torino, 40, 10100 Torino, Italy"  
  },  
  {  
    "name": "Marco",  
    "surname": "Papadopoulos",  
    "phone": "+30 210 123456",  
    "address": "Λεωφόρος Συγγράφεων, 10, 10100 Αθήνα, Ελλάς"  
  },  
  {  
    "name": "Giorgos",  
    "surname": "Kostopoulos",  
    "phone": "+30 210 123457",  
    "address": "Λεωφόρος Συγγράφεων, 11, 10100 Αθήνα, Ελλάς"  
  },  
  {  
    "name": "Dimitris",  
    "surname": "Papadimitriou",  
    "phone": "+30 210 123458",  
    "address": "Λεωφόρος Συγγράφεων, 12, 10100 Αθήνα, Ελλάς"  
  },  
  {  
    "name": "Spyros",  
    "surname": "Kotsopoulos",  
    "phone": "+30 210 123459",  
    "address": "Λεωφόρος Συγγράφεων, 13, 10100 Αθήνα, Ελλάς"  
  },  
  {  
    "name": "Athanasios",  
    "surname": "Papathanasiou",  
    "phone": "+30 210 123460",  
    "address": "Λεωφόρος Συγγράφεων, 14, 10100 Αθήνα, Ελλάς"  
  },  
  {  
    "name": "Panagiotis",  
    "surname": "Kotsopoulos",  
    "phone": "+30 210 123461",  
    "address": "Λεωφόρος Συγγράφεων, 15, 10100 Αθήνα, Ελλάς"  
  },  
  {  
    "name": "Giannis",  
    "surname": "Papadopoulos",  
    "phone": "+30 210 123462",  
    "address": "Λεωφόρος Συγγράφεων, 16, 10100 Αθήνα, Ελλάς"  
  },  
  {  
    "name": "Spyros",  
    "surname": "Kotsopoulos",  
    "phone": "+30 210 123463",  
    "address": "Λεωφόρος Συγγράφεων, 17, 10100 Αθήνα, Ελλάς"  
  },  
  {  
    "name": "Athanasios",  
    "surname": "Papathanasiou",  
    "phone": "+30 210 123464",  
    "address": "Λεωφόρος Συγγράφεων, 18, 10100 Αθήνα, Ελλάς"  
  },  
  {  
    "name": "Panagiotis",  
    "surname": "Kotsopoulos",  
    "phone": "+30 210 123465",  
    "address": "Λεωφόρος Συγγράφεων, 19, 10100 Αθήνα, Ελλάς"  
  }]
```



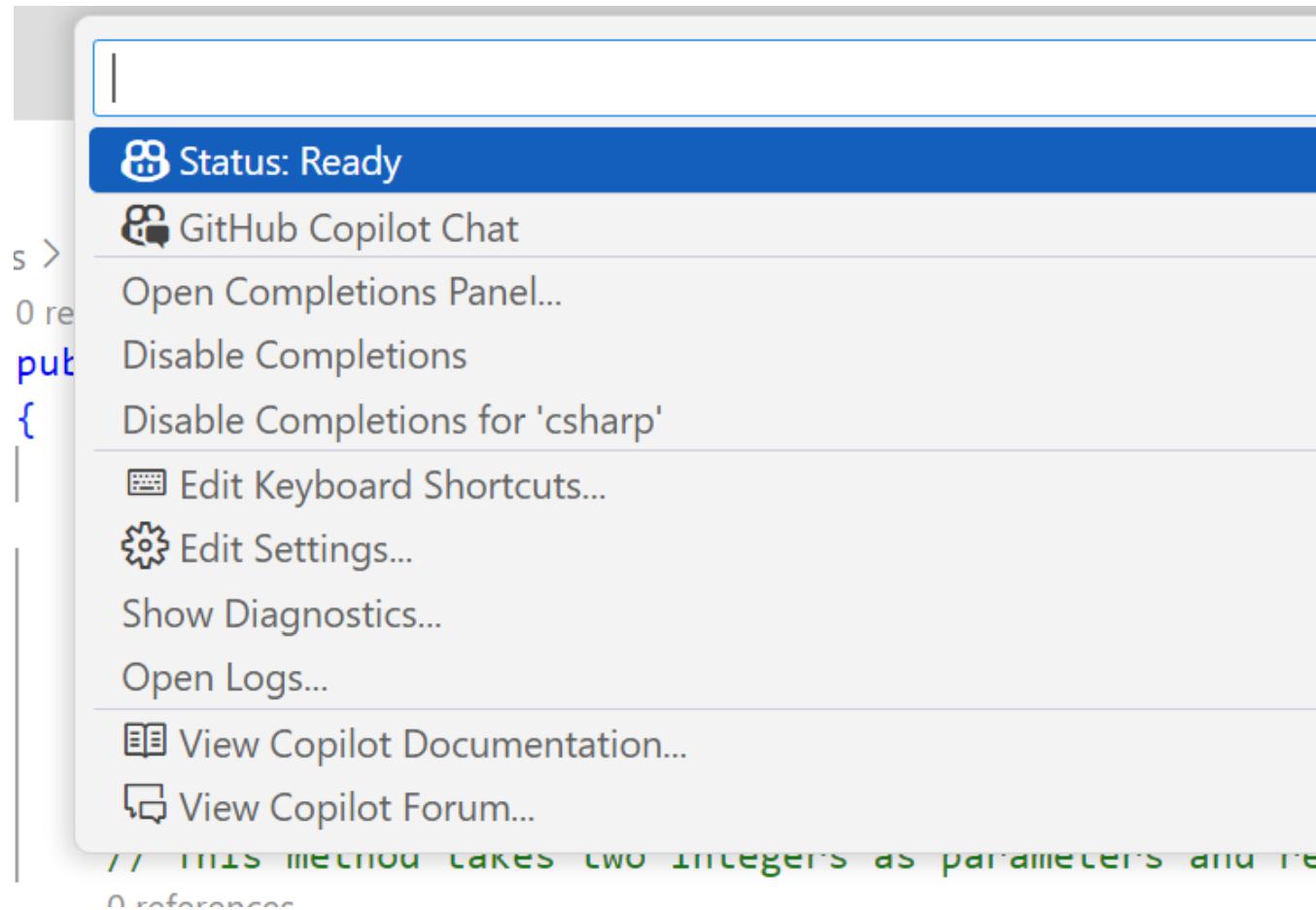
can you create a sample json file with 10 records with Greek person names, surnames, phone numbers and addresses?

GitHub Copilot

Used 1 reference >  
Sure, here's a sample JSON file with 10 records of Greek person names, surnames, phone numbers, and addresses:

```
[  
  {  
    "name": "Γιάννης",  
    "surname": "Παπαδόπουλος",  
    "phone": "+30 210 123456",  
    "address": "Λεωφόρος Συγγράφεων, 10, 10100 Αθήνα, Ελλάς"  
  },  
  {  
    "name": "Μαρία",  
    "surname": "Νικολάου",  
    "phone": "+30 210 123457",  
    "address": "Λεωφόρος Συγγράφεων, 11, 10100 Αθήνα, Ελλάς"  
  },  
  {  
    "name": "Λουκάς",  
    "surname": "Βερδίδης",  
    "phone": "+30 210 123458",  
    "address": "Λεωφόρος Συγγράφεων, 12, 10100 Αθήνα, Ελλάς"  
  },  
  {  
    "name": "Αννα",  
    "surname": "Ρυζούτη",  
    "phone": "+30 210 123459",  
    "address": "Λεωφόρος Συγγράφεων, 13, 10100 Αθήνα, Ελλάς"  
  },  
  {  
    "name": "Μάρκος",  
    "surname": "Παπαδημητρίου",  
    "phone": "+30 210 123460",  
    "address": "Λεωφόρος Συγγράφεων, 14, 10100 Αθήνα, Ελλάς"  
  },  
  {  
    "name": "Δημήτρης",  
    "surname": "Κοτσόπουλος",  
    "phone": "+30 210 123461",  
    "address": "Λεωφόρος Συγγράφεων, 15, 10100 Αθήνα, Ελλάς"  
  },  
  {  
    "name": "Αθανάσιος",  
    "surname": "Παπαθανασίου",  
    "phone": "+30 210 123462",  
    "address": "Λεωφόρος Συγγράφεων, 16, 10100 Αθήνα, Ελλάς"  
  },  
  {  
    "name": "Παναγιώτης",  
    "surname": "Κοτσόπουλος",  
    "phone": "+30 210 123463",  
    "address": "Λεωφόρος Συγγράφεων, 17, 10100 Αθήνα, Ελλάς"  
  },  
  {  
    "name": "Γιάννης",  
    "surname": "Παπαδόπουλος",  
    "phone": "+30 210 123464",  
    "address": "Λεωφόρος Συγγράφεων, 18, 10100 Αθήνα, Ελλάς"  
  },  
  {  
    "name": "Μαρία",  
    "surname": "Νικολάου",  
    "phone": "+30 210 123465",  
    "address": "Λεωφόρος Συγγράφεων, 19, 10100 Αθήνα, Ελλάς"  
  }]
```

# Tracking Suggestions



A screenshot of a code editor showing GitHub Copilot suggestions for a file named "Util.cs". The title bar says "GitHub Copilot Suggestions for Util.cs".

**GitHub Copilot Suggestions**

5 Suggestions

**Suggestion 1**

```
}
```

The Util `class` has two methods: Sum and Multiply. The Sum method takes two integers as parameters and returns their sum. The Multiply method takes two integers as parameters and returns their product.

The UtilTests class contains three test methods:  
Sum\_TwoPositiveNumbers\_ReturnsCorrectSum Sum\_NegativeAndPositiveNumber\_ReturnsCorrectSum Sum\_TwoNegativeNumbers\_ReturnsCorrectSum

Each test method calls the Sum method from the Util class and asserts

**Accept suggestion 1**

**Suggestion 2**

```
}
```

// Path: Program.cs

# GitHub Copilot CLI

```
$ gh copilot --help
Your AI command line copilot.
```

Usage:

```
copilot [command]
```

Examples:

```
$ gh copilot suggest "Install git"
$ gh copilot explain "traceroute github.com"
```

Available Commands:

<code>alias</code>	Generate shell-specific aliases <code>for</code> convenience
<code>config</code>	Configure options
<code>explain</code>	Explain a <code>command</code>
<code>suggest</code>	Suggest a <code>command</code>

Flags:

<code>-h, --help</code>	<code>help</code> <code>for</code> copilot
<code>-v, --version</code>	<code>version</code> <code>for</code> copilot

Use "`copilot [command] --help`" `for` more information about a command.

<https://github.com/github/gh-copilot>



# “Luckily” also Copilot has its limits, for now...

Training data impacts suggestions

GitHub Copilot != Compiler, tester, security scanner, etc.

The AI can't read your mind, yet.

[arxiv.org/pdf/2211.06956.pdf](https://arxiv.org/pdf/2211.06956.pdf)





**Copilot Individual**  
can improve  
productivity and  
code quality.

55%

faster **coding**

46%

of code written by  
AI

15%

higher code quality

Focus on the code that only **YOU** can write!



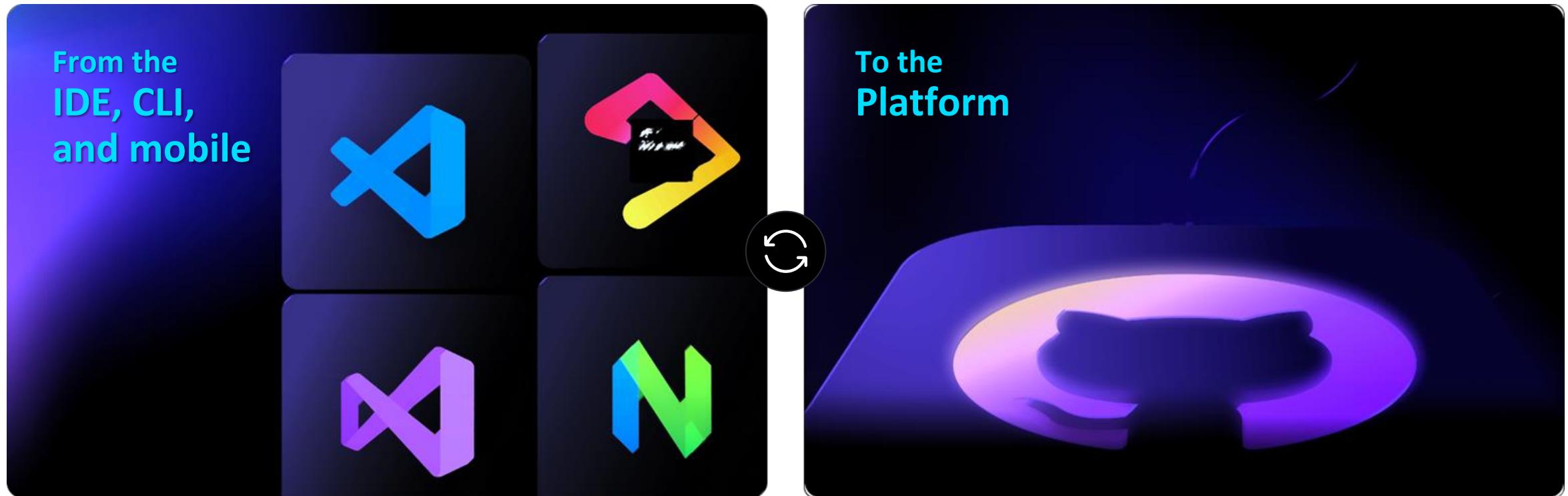
**Copilot Business**  
has the same  
features of Copilot  
Individual, but with  
more control on  
users and IP.

## Management and policies

- ✓ Public code filter
- ✓ User management
- ✓ Data excluded from training by default
- ✓ IP indemnity
- ✓ Content exclusions
- ✓ SAML SSO authentication<sup>2</sup>

<https://resources.github.com/copilot-trust-center/>

# Copilot Enterprise\* for an AI-powered software development lifecycle.



\*Requires GitHub Enterprise Cloud



# Chat with Copilot directly in github.com

A screenshot of a GitHub repository page. The repository name is 'github/gITHUB-Ospo'. The 'Code' tab is selected. In the top right corner of the header, there is a 'Chat with Copilot' button. Below the header, there are standard GitHub navigation icons: a search bar, a 'New conversation' icon, a '+' icon, a three-dot menu, and a user profile icon. Below these are buttons for 'Fork' (54), 'Starred' (564), and a dropdown menu. On the left side, there is a sidebar with sections for 'commits', 'nths ago', 'days ago', 'nths ago', and 'nths ago'. The main content area shows the repository's description: 'Helping open source program offices get started', a link to a blog post ('github.blog/2023-03-13-an-open-sourc...'), and several tags: 'open-source', 'ospo', and 'open-source-program-office'. At the bottom are links to 'Readme' and 'MIT License'.

A screenshot of the 'New conversation' interface for the 'github/gITHUB-Ospo' repository. The title is 'New conversation'. There is a button to 'Take conversation into immersive'. Below it, a link to 'All topics'. The main content area shows a message: 'Chatting about github/gITHUB-Ospo' (Public repository). It says, 'You can ask questions like "What does this file do?" or "Where is this functionality defined?".' It also states, 'Copilot is powered by AI, so surprises and mistakes are always possible.' A note says, '💡 This repository is not currently indexed for semantic code search.' It explains, 'Copilot uses semantic code search to greatly improve response quality and accuracy.' At the bottom, there is a green button labeled 'Index this repository' and a message with a checkmark: 'Semantic code search available and enabled'.



## Chat with Copilot

Copilot indexes and understands your code so you can get answers to questions, learn about new codebases, or improve legacy code.

Select a docset or repository to chat about

Search topics

### Docsets

- GitHub Advanced Security →
- GitHub Engineering →
- GitHub Public →
- GitHub TheHub →
- Primer →
- GitHub A11y Docs →
- TypeScript →

### Repositories

- github/enterprise-advocates →
- github/customer-engagement-programs →

What is a geometric filter?

 Copilot Generating...

- **Geometric Filter definition (in [geometric\\_filter.rs](#)):**

- The Geometric Filter is a probabilistic set size estimator, distinct from related filters like HyperLogLog, MinHash, and others.
- It supports operations such as insertion and deletion, which are expressed by simply toggling the bit associated with the hash of the original item.
- The symmetric difference between two sets is denoted by a simple XOR operation of the associated Geometric Filters, however, it doesn't support the union operation.
- Unlike other set estimators, the estimated size of the symmetric difference between two sets is relative to the estimate size and not relative to the union of the original two sets.
- The Geometric Filter retains bits necessary to find potentially single item differences with

# Create PR Summaries

The screenshot shows a GitHub pull request page for a repository named `octodemo / geektrainer-demo-conference`. The pull request is titled `Add Django messages to submit and edit flows #12`. The status is `Open`, and it shows that GeekTrainer wants to merge 1 commit from the `main` branch into the `add-success-messages` branch.

Key details visible on the page include:

- Conversation:** 0 comments
- Commits:** 1 commit by GeekTrainer, last updated 7 hours ago, with a commit message: `Add Django messages to submit and edit flows` and hash `0fb4de0`.
- Checks:** 0 checks.
- Files changed:** 2 files.
- Code changes:** +11 -2 lines of code.
- Reviewers:** No reviews.
- Assignees:** No one—assign yourself.
- Labels:** None yet.

At the bottom of the page, there is a note: "Add more commits by pushing to the `add-success-messages` branch on `octodemo/geektrainer-demo-conference`".

# Copilot can understand your organization's repositories and knowledge base.

## Discover

Does code already exist for this?

Help! I need step-by-step instructions.

## Explain

What does this code do?

Why is this important?

## Analyze

What needs my attention?

Does anything here use anti-patterns?

# Github Copilot for Azure



**1. In-Chat Azure Expertise:** Simply type "@azure" in Copilot Chat and get real-time insights and answers without leaving your code.



**2. Personal Resource Management:** Need to list your storage accounts or find the URL for your Azure container app? GitHub Copilot for Azure has your back.



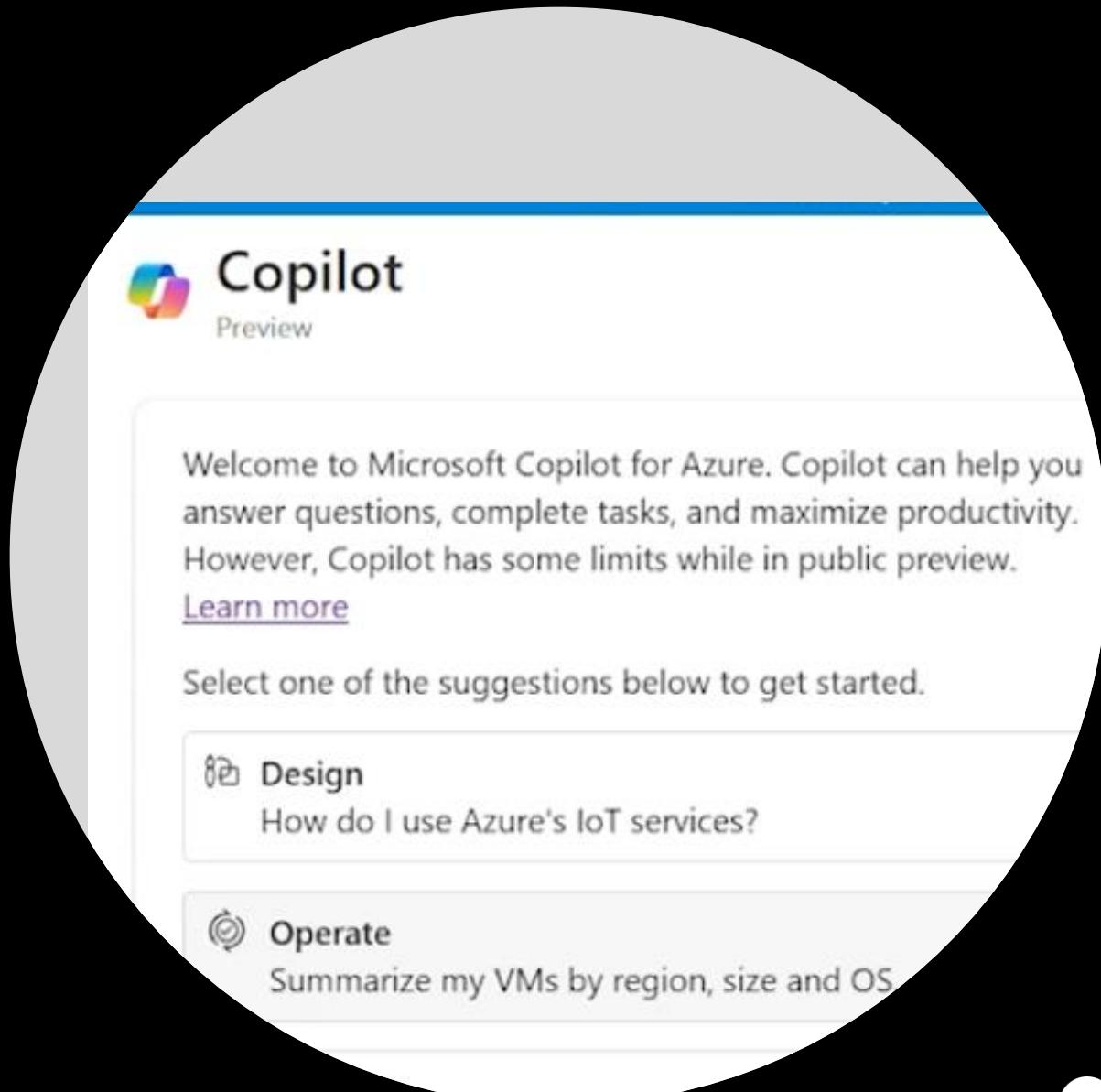
**3. Deployment Guidance:** Need help understanding how to deploy an application on Azure? GitHub Copilot can provide guidance and help along the way.



**4. Troubleshooting:** GitHub Copilot for Azure can help you navigate Log Analytics to diagnose your problems.

[https://microsoft.qualtrics.com/jfe/form/SV\\_4OCHtDpnNfB1Meq](https://microsoft.qualtrics.com/jfe/form/SV_4OCHtDpnNfB1Meq)

# Copilot for Azure



Home &gt;

PSLinuxVM ⚡ ⭐ ...

# Copilot for Azure CLI

Subscription (move) : [steven\\_ma \[internal subscription\]](#)  
 Subscription ID : dbf3b6cb-c1d0-4d04-94b9-51509b8d33fd  
 Tags (edit) : Add tags

Deployments : No deployments  
 Location : West US 3

Resources Recommendations (10)

Filter for any field... Type equals all X Location equals all X + Add filter

Name ↑	Type
mysshkey	SSH key
PSLinuxVM	Virtual machine
PSLinuxVM	Network Interface
PSLinuxVM	Network security group
PSLinuxVM	Virtual network

[Switch to PowerShell](#) [Restart](#) [Manage files](#) [New session](#) [Editor](#) [Web preview](#) [Settings](#) [Help](#)

Requesting a Cloud Shell. Succeeded.

Connecting terminal...

Welcome to Azure Cloud Shell

Type "az" to use Azure CLI

Type "help" to learn about Cloud Shell

damien [ ~ ]\$

 Copilot  
Preview

Welcome to Microsoft Copilot for Azure. Copilot can help you answer questions, complete tasks, and maximize productivity. However, Copilot has some limits while in public preview.  
[Learn more](#)

Select one of the suggestions below to get started.

 Design  
Scale out my Kubernetes cluster to 5 nodes.

 Operate  
What is the distribution of resource types across my subscriptions?

 Optimize  
What are the differences between standard and premium Azure file shares?

 Troubleshoot  
Can you run anomaly detection on my Azure edge resources?

I want to ...

0 / 500



**Contoso-TestVM**

Virtual machine

Search

[Connect](#) [Start](#) [Restart](#) [Stop](#) [Hibernate](#) [Capture](#) [Delete](#) [Refresh](#) [Open in mobile](#) [Feedback](#) [CLI / PS](#)**Overview**Resource group ([move](#))[ContosoRG](#)

Status

Stopped (deallocated)

Location

West US

Subscription ([move](#))[IbizaFx - GPT integration](#)

Subscription ID

0531c8c8-df32-4254-a717-b6e983273e5f

Operating system

Linux

Size

Standard B1ls (1 vcpu, 0.5 GiB memory)

Public IP address

13.93.222.67

Virtual network/subnet

[Contoso-TestVM-vnet/default](#)

DNS name

Not configured

Health state

-

Time created

5/16/2024, 11:04 PM UTC

[View Cost](#) | [JSON View](#)

No new notifications from this session

[More events in the activity log](#)Tags ([edit](#))

azsecpack : nonprod

▼ More (1)

**Properties****Monitoring****Capabilities (7)****Recommendations****Tutorials****Virtual machine**

Computer name	Contoso-TestVM
Operating system	Linux
VM generation	V2
VM architecture	x64
Hibernation	Disabled
Host group	-

**Networking**

Public IP address	13.93.222.67 ( Network interface )	contoso-testvm315
Public IP address (IPv6)	-	
Private IP address	10.2.0.4	
Private IP address (IPv6)	-	

# Copilot for Troubleshooting



# Copilot for YAML Editor

Add with YAML ...

Not sure where to start? Deploy a quickstart application to get up and running.

[Get YAML code from Copilot](#) Specify your Kubernetes requirements and receive a customized YAML template in seconds.

[YAML](#)

[JSON](#)

```
1+apiVersion: apps/v1
2+kind: Deployment
3+metadata:
4+  name: azure-vote-front
5+spec:
6+  replicas: 1
7+  selector:
8+    matchLabels:
9+      app: azure-vote-front
10+   template:
11+     metadata:
12+       labels:
13+         app: azure-vote-front
14+     spec:
15+       containers:
16+         - name: azure-vote-front
17+           image: mcr.microsoft.com/azure-vote-front:v2
18+         ports:
19+           - containerPort: 80
20+...
21+apiVersion: v1
22+kind: Service
23+metadata:
24+  name: azure-vote-front
25+spec:
26+  type: LoadBalancer
27+  ports:
28+    - port: 80
29+  selector:
30+    app: azure-vote-front
```

Draft with Copilot PREVIEW

generate a simple voting app using the mcr.microsoft.com/azure-vote-frontv2 image ➔

Accept



AI-generated code may be incorrect.  
Changed 30 lines.



Preview

Welcome to Microsoft Copilot for Azure. Copilot can help you answer questions, complete tasks, and maximize productivity. However, Copilot has some limits while in public preview.  
[Learn more](#)

Select one of the suggestions below to get started.



Design  
How can Azure help me simplify integrations and create automated workflows?



Operate  
Generate a table with the count of resources per public IP address.



Optimize  
Can I convert an existing standard general-purpose v2 storage account to a Premium block blob storage account?



Troubleshoot  
Why is my Azure database performance slow?

Create a yaml deployment

Would you like to navigate to the YAML deployment editor for the alexok-test-upgrade cluster?

[Navigate to YAML Editor](#)

AI-generated content may be incorrect.



1 of 15 requests

How can I scale up my AKS cluster using YAML

What does my AKS YAML deployment file mean

Edit existing AKS YAML deployment file

I want to ...

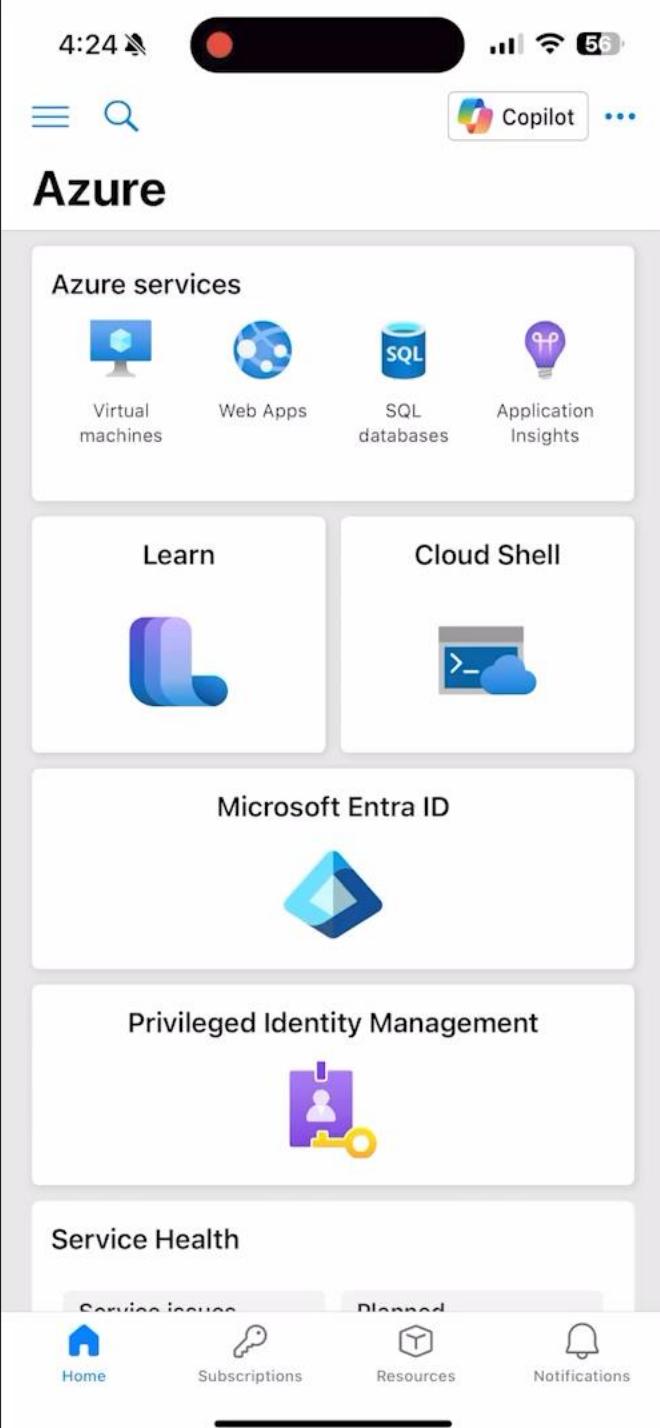
# Copilot for Azure has a lot of other features

**AKS Cluster  
Management**

**Azure Resource  
Graph**

**ARM & Terraform**





# Microsoft Copilot for Azure on iOS and Android





AZURE DAY

# Thank you!

**Vote for  
my Session**

**Lorenzo Barbieri**  
**Principal Consultant**  
**@SoftwareOne**  
**[linkedin.com/in/geniodelmale](https://linkedin.com/in/geniodelmale)**

