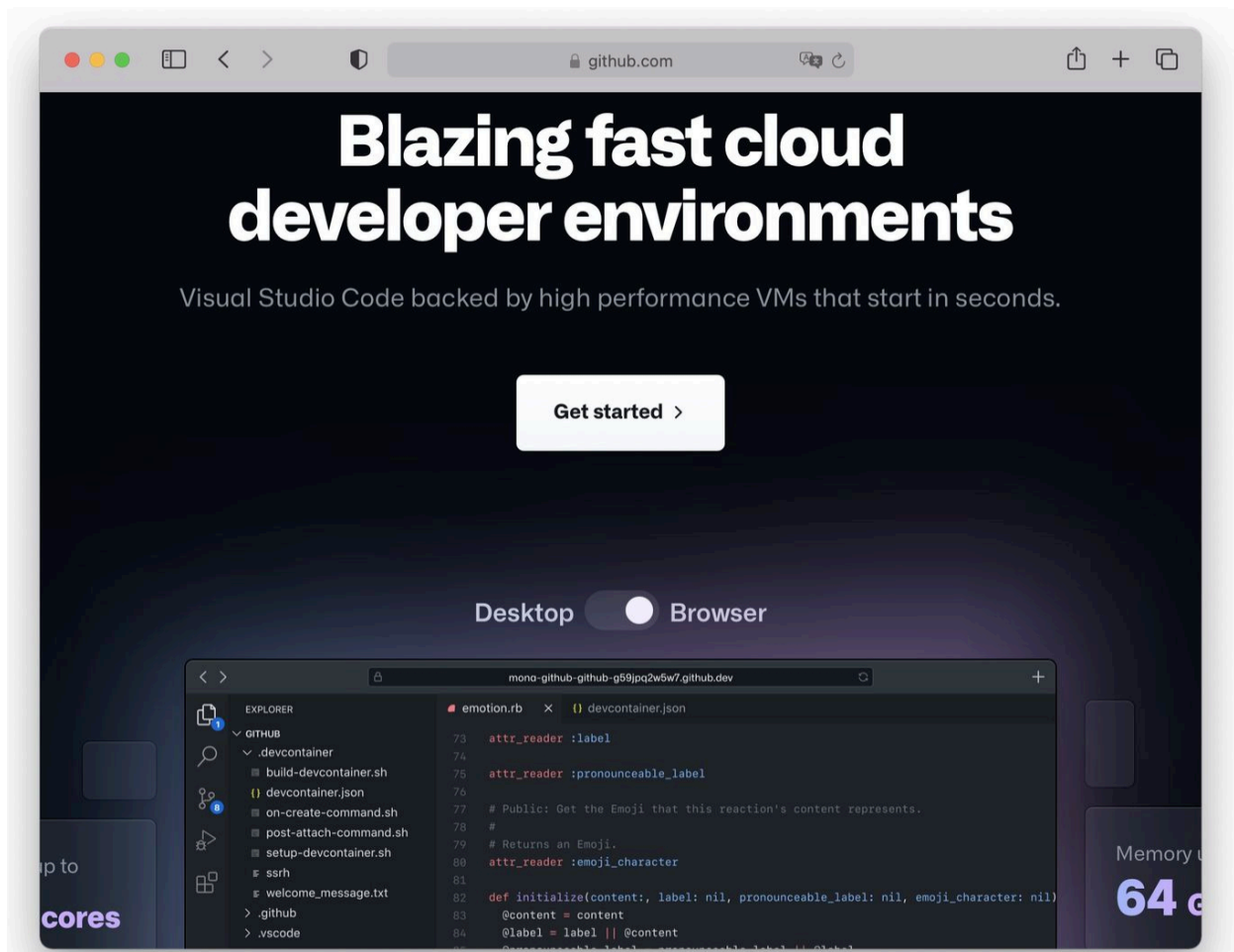


GitHub Codespaces Overview & Environment Configuration (Optional)

First, make sure you have a network environment that can access GitHub smoothly.
Otherwise, it is recommended to use Alibaba Cloud.

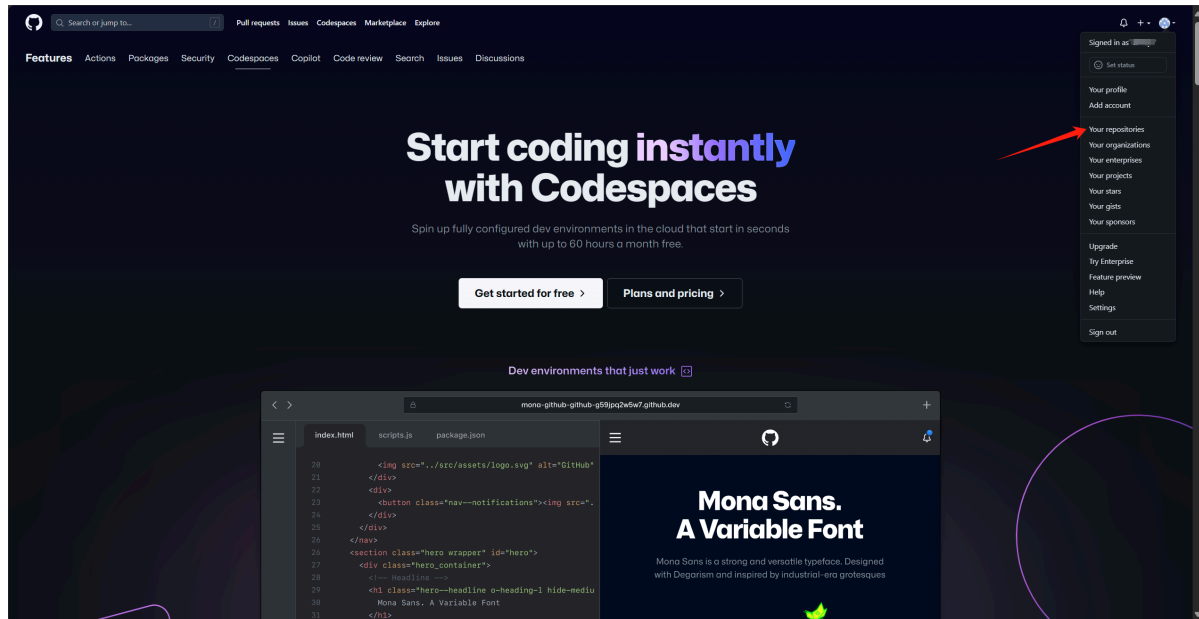
1. What is a codespace?

Codespaces are development environments hosted in the cloud. You can customize your projects for GitHub Codespaces by committing configuration files to a repository (often referred to as "configuration as code"), which creates a repeatable codespace configuration for all users of the project. For more information, see "[Introduction to development containers](#)."

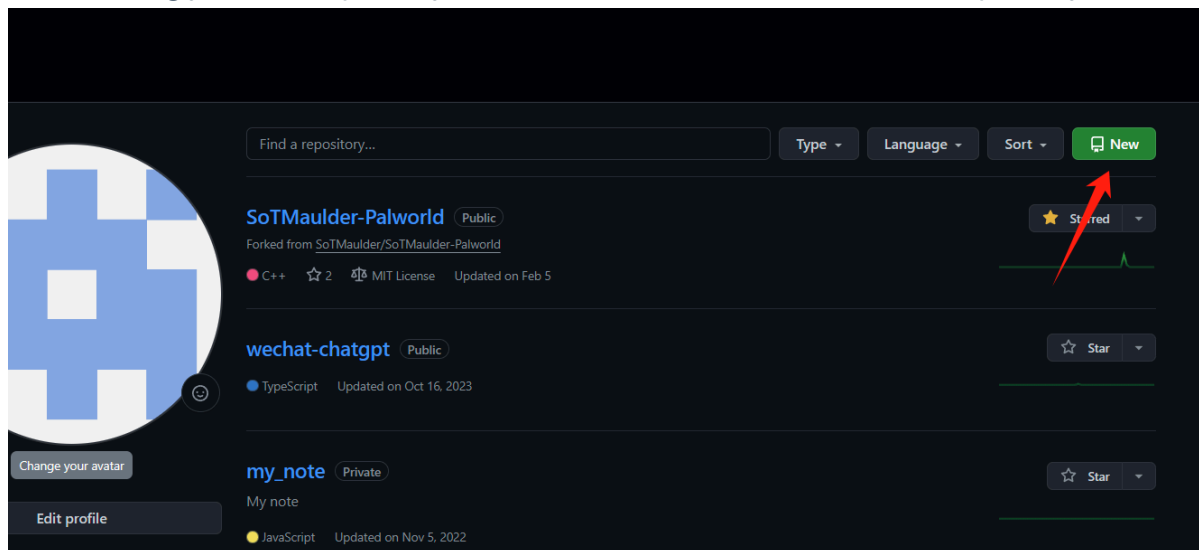


2. Create the first codespace

1. Open the URL: <https://github.com/features/codespaces>
2. Log in to your GitHub account
3. Click the icon **Your repositories**



4. After entering your own repository list, click the **New** icon to create a new repository




5. You can set it up as you like. For the sake of convenience and security, it is recommended to check **Add a README file** and select **Private** (because the API key is used in the course, pay

attention to privacy protection). After the settings are completed, click **Create repository**

Create a new repository

A repository contains all project files, including the revision history. Already have a project repository elsewhere? [Import a repository.](#)

Required fields are marked with an asterisk ().*

Owner *  **Repository name ***

✔ test_codespace is available.

Great repository names are short and memorable. Need inspiration? How about [shiny-guide](#) ?

Description (optional)

☐ **Public**
Anyone on the internet can see this repository. You choose who can commit.

☒ **Private**
You choose who can see and commit to this repository.

Initialize this repository with:

☒ **Add a README file**
This is where you can write a long description for your project. [Learn more about READMEs.](#)


Add .gitignore

Choose which files not to track from a list of templates. [Learn more about ignoring files.](#)

Choose a license

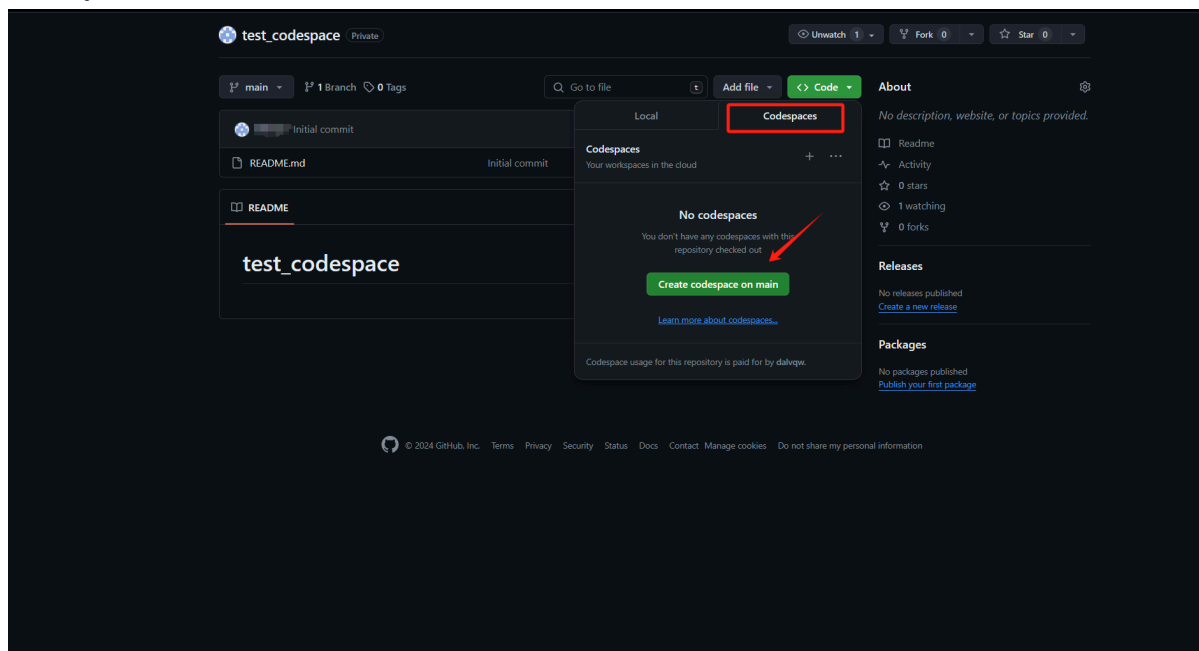
A license tells others what they can and can't do with your code. [Learn more about licenses.](#)

This will set `main` as the default branch. Change the default name in your [settings](#).

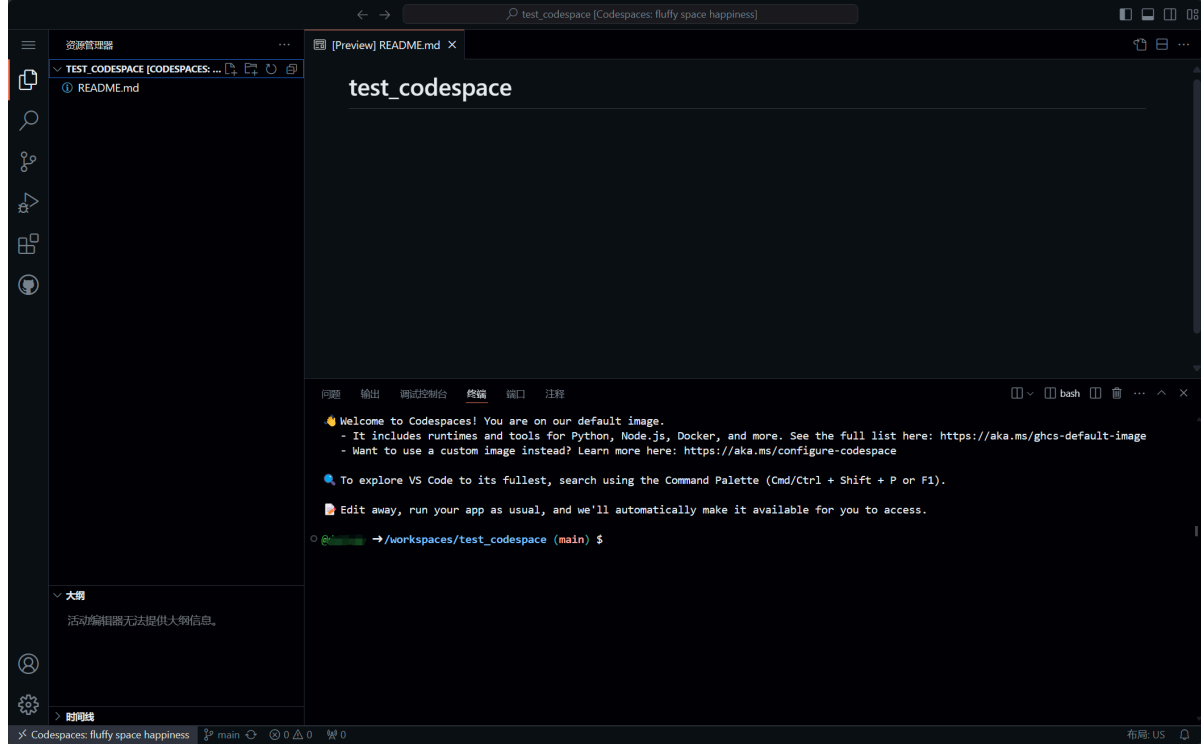
 You are creating a private repository in your personal account.

Create repository

6. After creating the repository, click **code** and select **Codespaces** . Click the icon **Create codespace on main**



7. After waiting for a while, the following interface will appear. The following operations are the same as VSCode. You can install plug-ins and adjust settings as needed.



3. Environment Configuration

Just refer [7.环境配置](#) to [1.2 通用环境配置](#) the configuration environment and skip the first two steps.

Since each repository can set up an independent codespace, we don't need to install the conda environment here. And because the GitHub server is overseas, there is no need to configure a domestic mirror source.

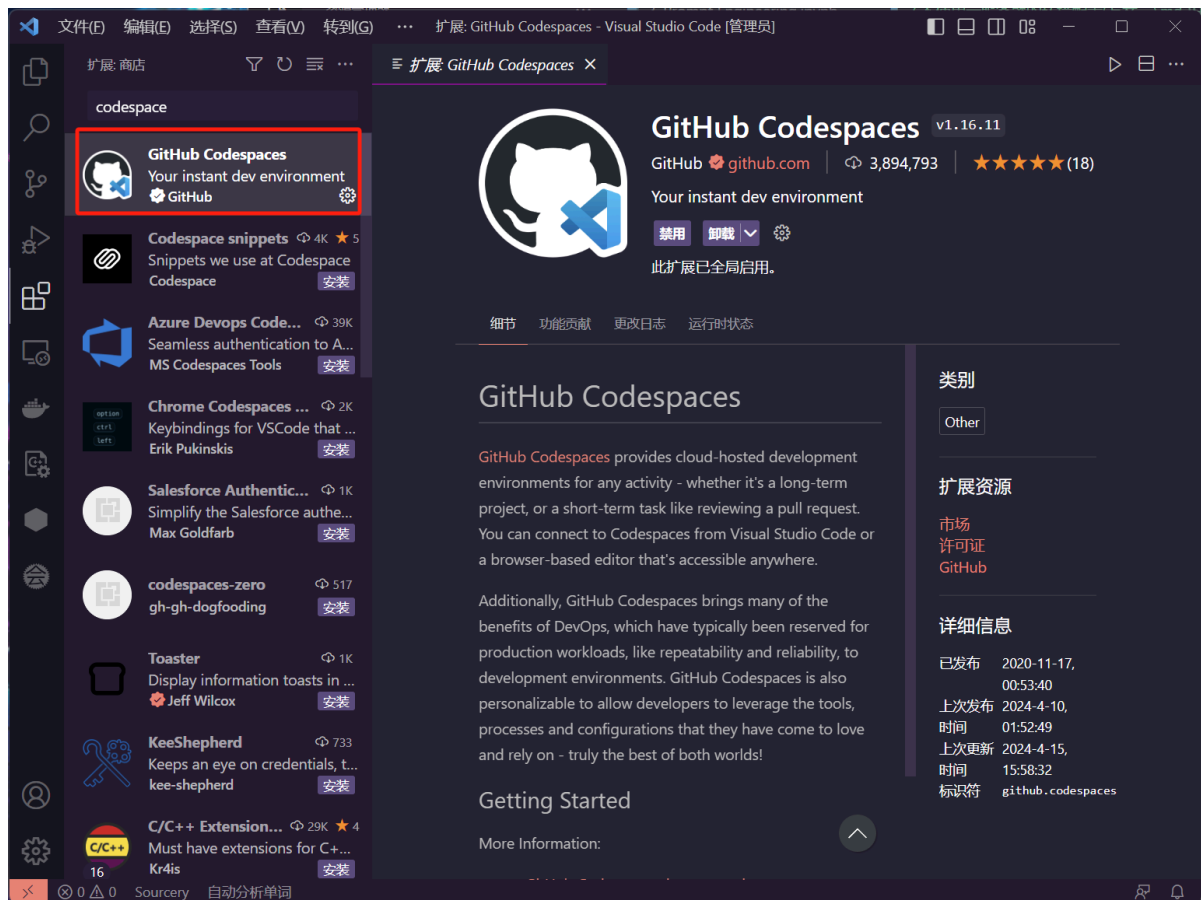
4. VSCode configures Python environment

Refer [7.环境配置](#) to [二、VSCode 配置 Python 环境](#) the configuration environment

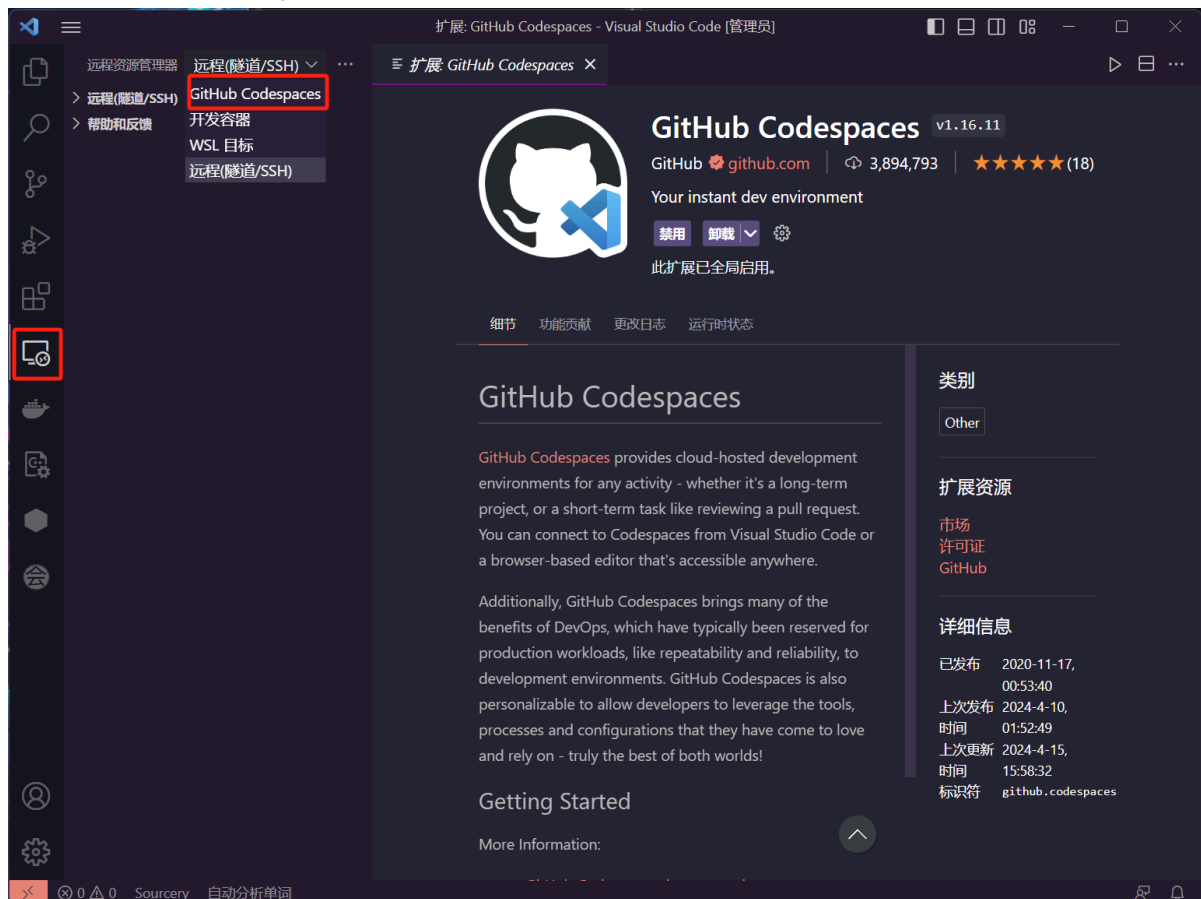
Note: After installing all configurations for the first time, you need to restart the codespace

5. Connecting Local VSCode to Codespace (optional)

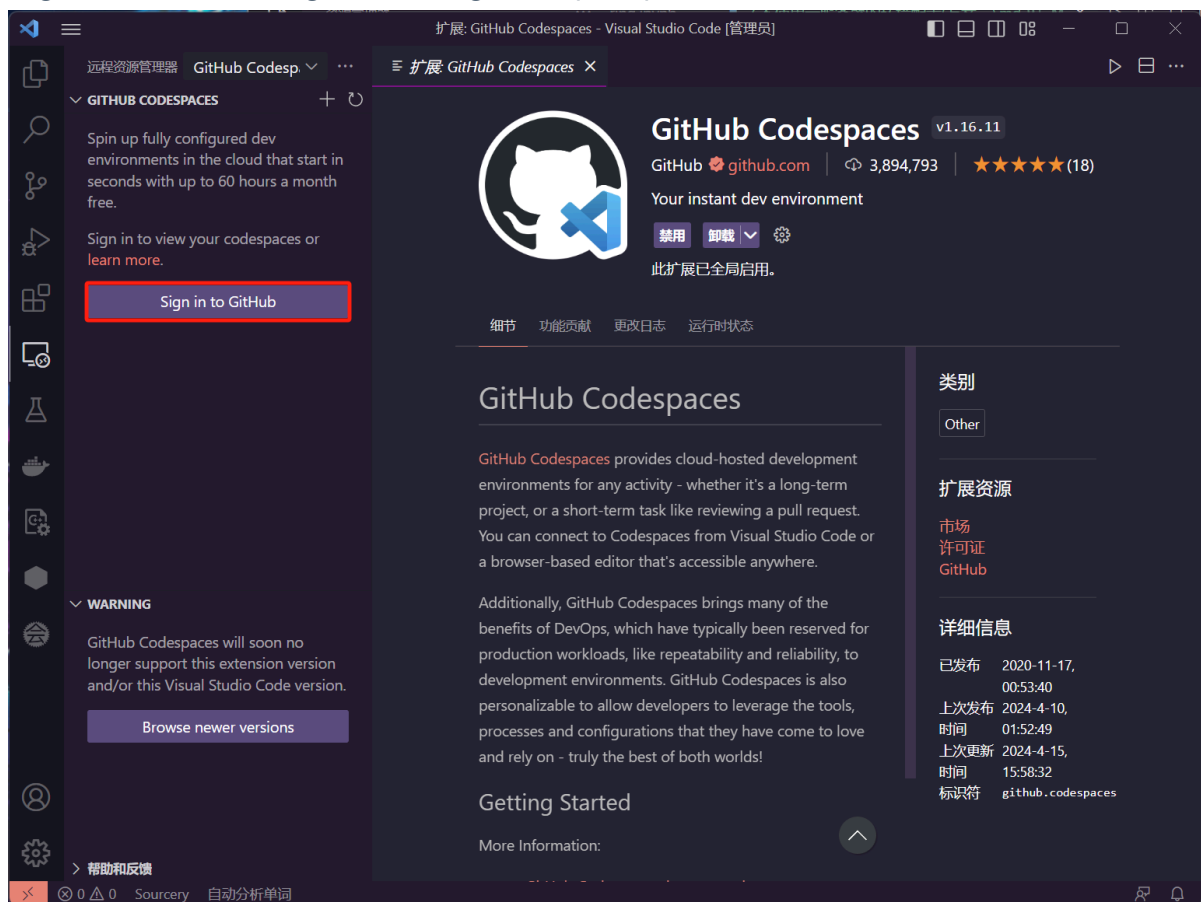
1. Open VSCode, search for codespace and install the plugin



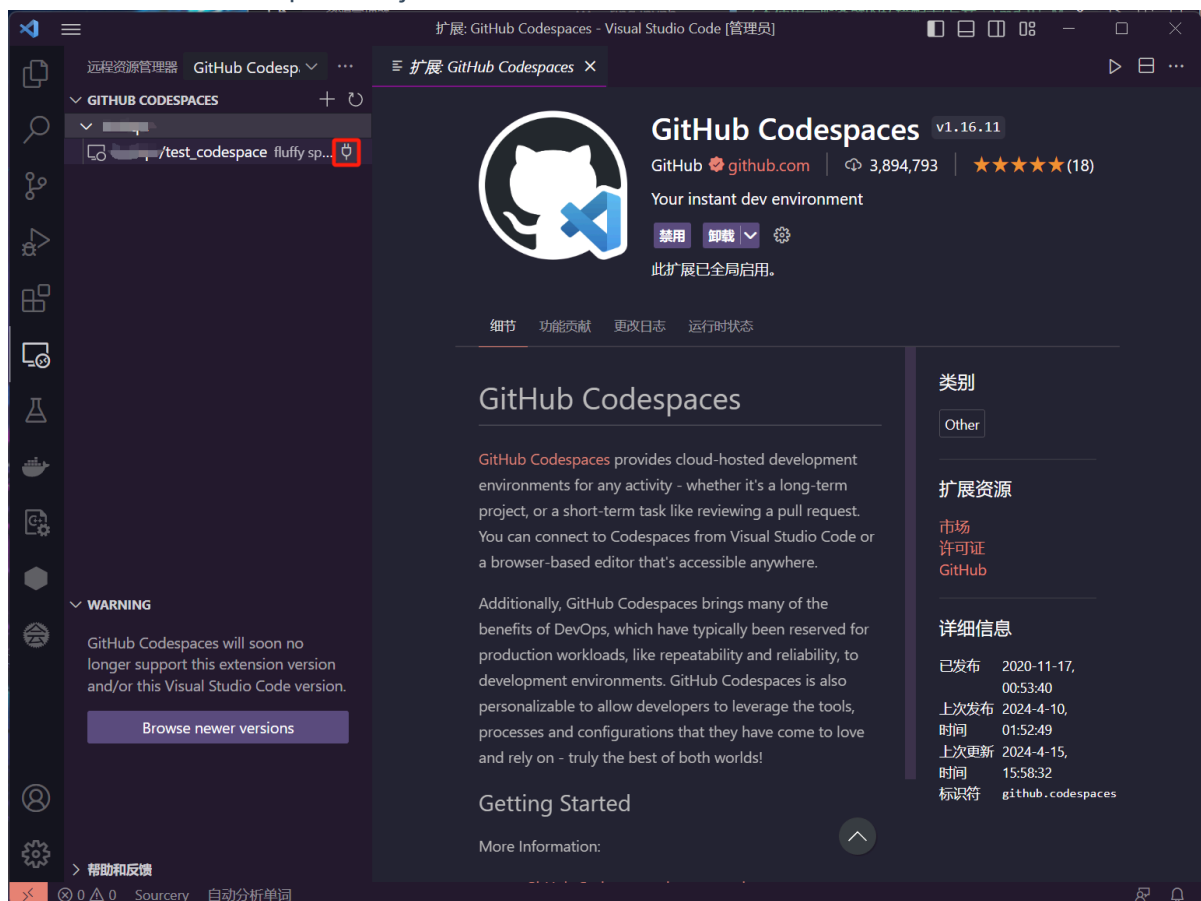
2. In the VS Code activity bar, click the Remote Explorer icon



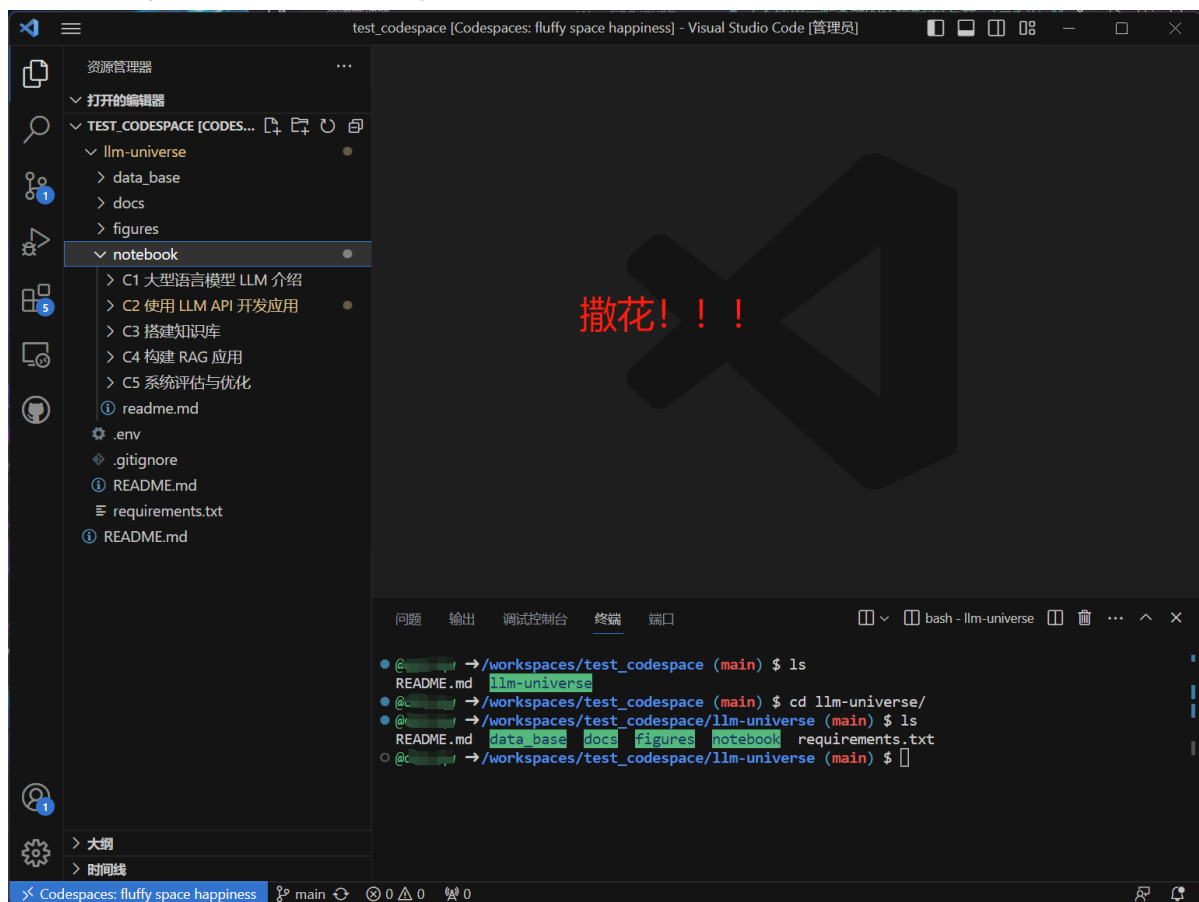
3. Log in to GitHub and log in according to the prompts



4. You can see the codespace we just created here. Click the red box connection icon



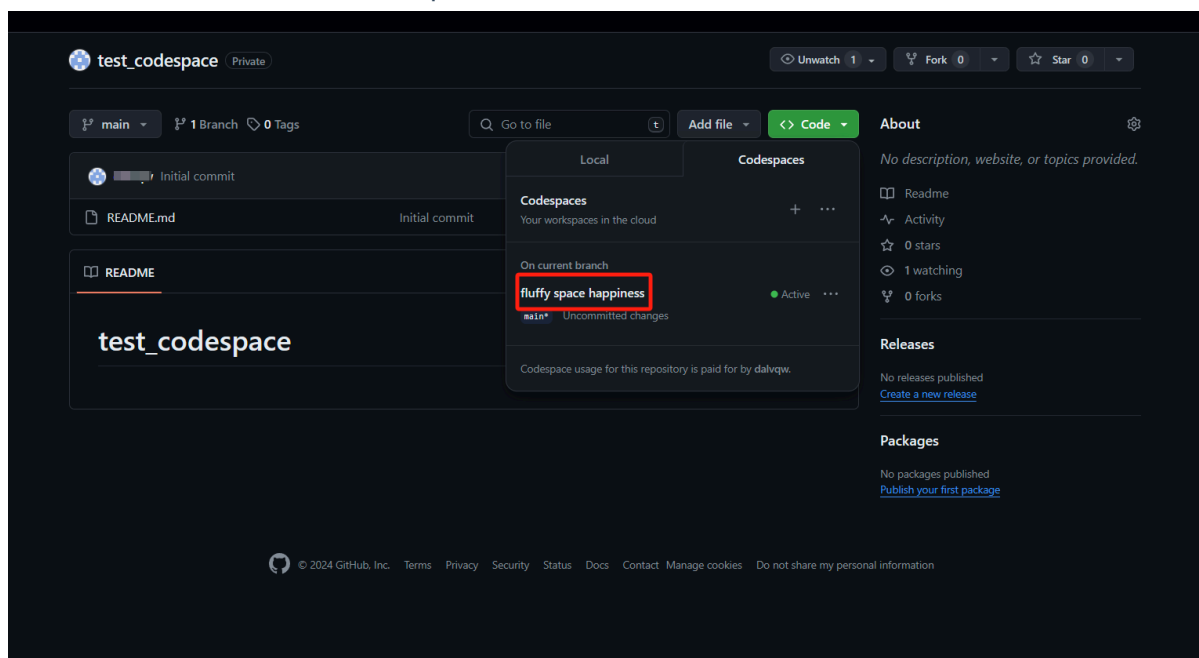
5. Successfully connected to codespace



6. VSCode official configuration document

6. Others

1. After closing the webpage, find the newly created repository and click the red box to select the content to re-enter the codespace



2. After finding the GitHub account settings, you can see the remaining free quota in **Plans and usage**.

Billing and plans

Plans and usage

Spending limits

Payment information

Emails

Password and authentication

Sessions

SSH and GPG keys

Organizations

Enterprises

Moderation

Code, planning, and automation

Repositories

Codespaces

Packages

Copilot

Pages

Saved replies

Security

Code security and analysis

Integrations

Applications

Scheduled reminders

Archives

Security log

Sponsorship log

Developer settings

Current plan

Compare all plans Upgrade

GitHub Free

The basics for all developers

Unlimited public/private repos

Unlimited collaborators

2,000 Actions minutes/month

500MB of Packages storage

120 core-hours of Codespaces compute per developer

15GB of Codespaces storage per developer

Community support

Not included:

Free Codespaces usage per organization

Protected branches on all repos

Increase Codespaces [spend limits](#)

Multiple reviewers in pull requests

Required status checks

Code owners

Required reviewers

Pages for static website hosting

Web-based support

See all features and compare plans

Start your first organization

With CI/CD, Dependabot, and the world's largest developer community, GitHub gives your team everything they need to ship better software faster

Create an organization Learn more

Add-ons

GitHub Copilot

Your AI pair programmer

Enable GitHub Copilot

GitHub Copilot uses the GPT-3.5 Turbo model to suggest code and entire functions in real-time, right from your editor

Usage this month

Get usage report

Actions

Included minutes quota resets in 16 days. [See billing documentation](#)

Usage minutes

0.00 of 2,000.00 min included

\$0.00

\$0.00 monthly spending limit | [Set up a spending limit](#) \$0.00

Packages

Data transfer quota resets in 16 days. [See billing documentation](#)

Data transfer out

0.00 GB of 1.0 GB included

\$0.00

\$0.00 monthly spending limit | [Set up a spending limit](#) \$0.00

Storage for Actions and Packages

Shared storage consists of Actions artifacts and Packages usage. This graph shows the account's storage usage in GB-months. Removing stored artifacts will not reduce this number, but it will lower its rate of growth. To see your account's current storage, download a usage report.

Storage

0.0 of 0.5 GB included

\$0.00

\$0.00 monthly spending limit | [Set up a spending limit](#) \$0.00

Codespaces

Included quotas reset in 16 days. [See billing documentation](#)

Usage hours

2.77 of 120.00 included core hours used

\$0.00

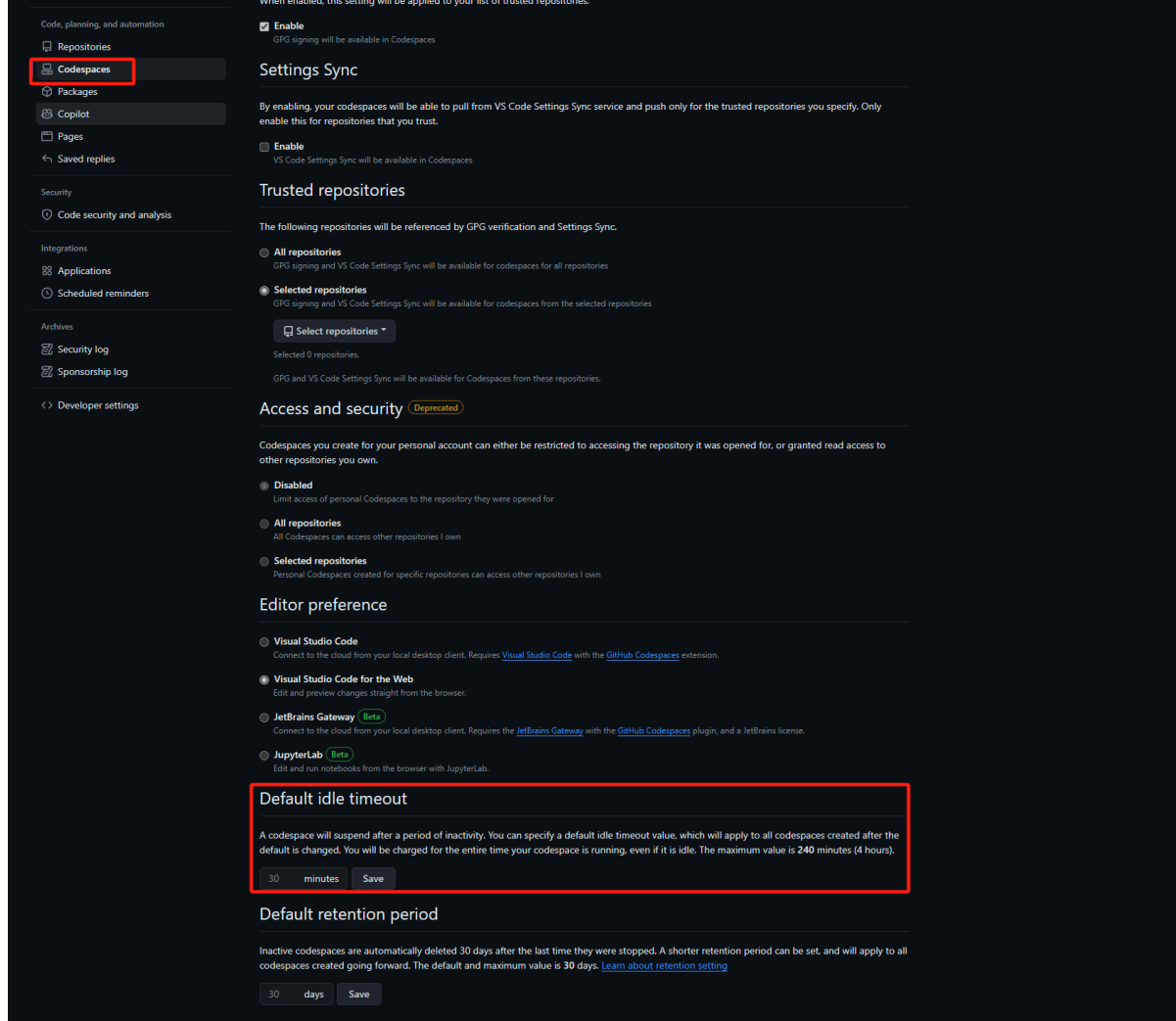
Storage

0.00 of 15.00 included GB-month used

\$0.00

\$0.00 monthly spending limit | [Set up a spending limit](#) \$0.00

3. Codespace settings, it is recommended to adjust the suspension time (too long a time will waste credits)



4. Because codespace can be accessed through the web, the most important thing is of course that you can carry a tablet with you to access the web for programming learning.

We now have the necessary foundation for development. In the next chapter, we will introduce the required environment configuration in detail.

[Previous chapter](#)

5. Alibaba Cloud Server Usage Guide

[Next Chapter](#)

7. Environment Configuration