Tools of the trade III

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Contents

- Introduction to containerization
- Start the class Docker container
- **Connect with VSCode**
- What are SSH keys?

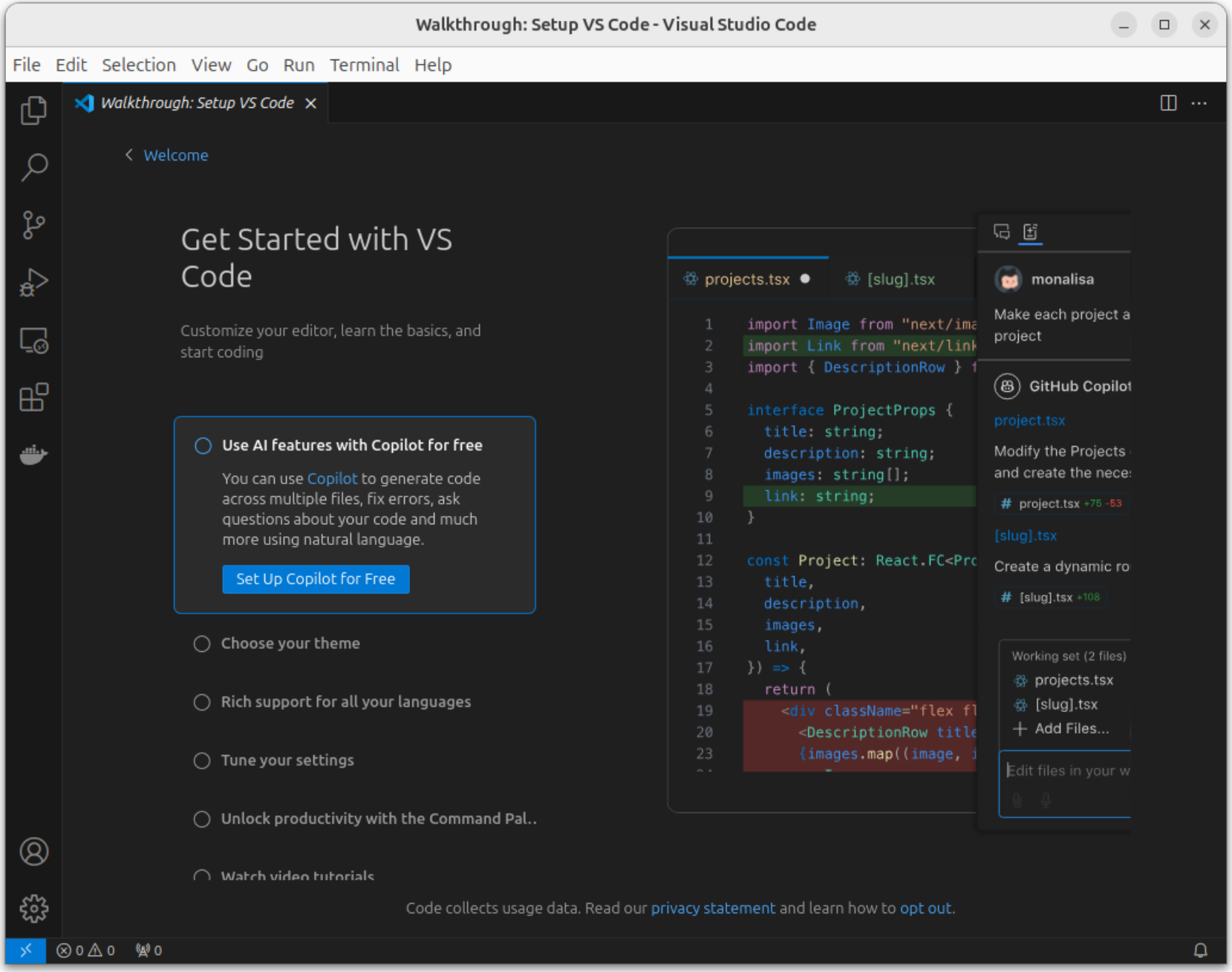
Connecting VSCode to your Docker container

This guide will help you set up Visual Studio Code (VSCode) to connect to your running Docker container. This will allow you to edit and execute code inside the container seamlessly.

Prerequisites

Before you begin, ensure that you have:

1. A **running Docker container** with SSH enabled.
    - Follow the steps in "Start the class Docker container"
2. **VSCode** installed on your computer.
    - Download it from Visual Studio Code.
    - Install the "Remote - SSH" and "Remote - Containers" extensions from the Extensions Marketplace.


Walkthrough: Setup VS Code - Visual Studio Code
File Edit Selection View Go Run Terminal Help
Walkthrough: Setup VS Code
Welcome
Get Started with VS Code
Customize your editor, learn the basics, and start coding
Use AI features with Copilot for free
You can use Copilot to generate code across multiple files, fix errors, ask questions about your code and much more using natural language.
Set Up Copilot for Free
Choose your theme
Rich support for all your languages
Tune your settings
Unlock productivity with the Command Pal..
Watch video tutorials
projects.tsx
[slug].tsx
monalisa
Make each project a project
GitHub Copilot
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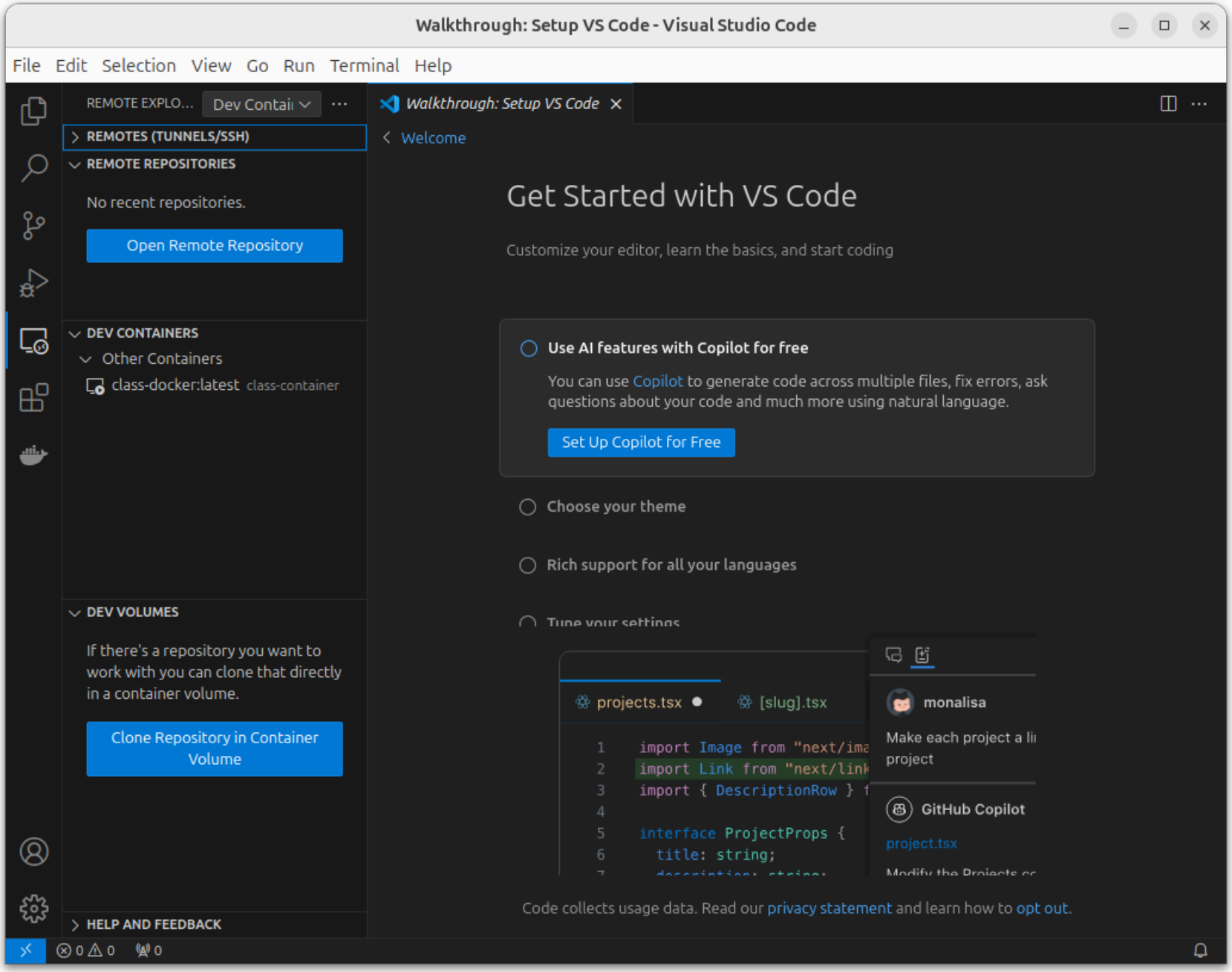
Working set (2 files)
projects.tsx
[slug].tsx
Add Files...
Edit files in your w
Code collects usage data. Read our privacy statement and learn how to opt out.

Connect using the Remote - Containers Extension

You can use the "Remote - Containers" extension to connect directly to the running container:

1. **Attach to the container**:
    - Press `Ctrl+Shift+P` (or `Cmd+Shift+P` on Mac) to open the command palette.
    - Type `Remote-Containers: Attach to Running Container` and select it.
    - Choose `class-container` from the list.


Walkthrough: Setup VS Code - Visual Studio Code
File Edit Selection View Go Run Terminal Help
REMOTE EXPLO...
Dev Contai
REMOTES (TUNNELS/SSH)
REMOTE REPOSITORIES
No recent repositories.
Open Remote Repository
DEV CONTAINERS
Other Containers
class-docker:latest class-container
DEV VOLUMES
If there's a repository you want to work with you can clone that directly in a container volume.
Clone Repository in Container Volume
HELP AND FEEDBACK
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projects.tsx
[slug].tsx
import Image from "next/ima
import Link from "next/link
import { DescriptionRow } f
interface ProjectProps {
title: string;
monalisa
Make each project a li
project
GitHub Copilot
project.tsx
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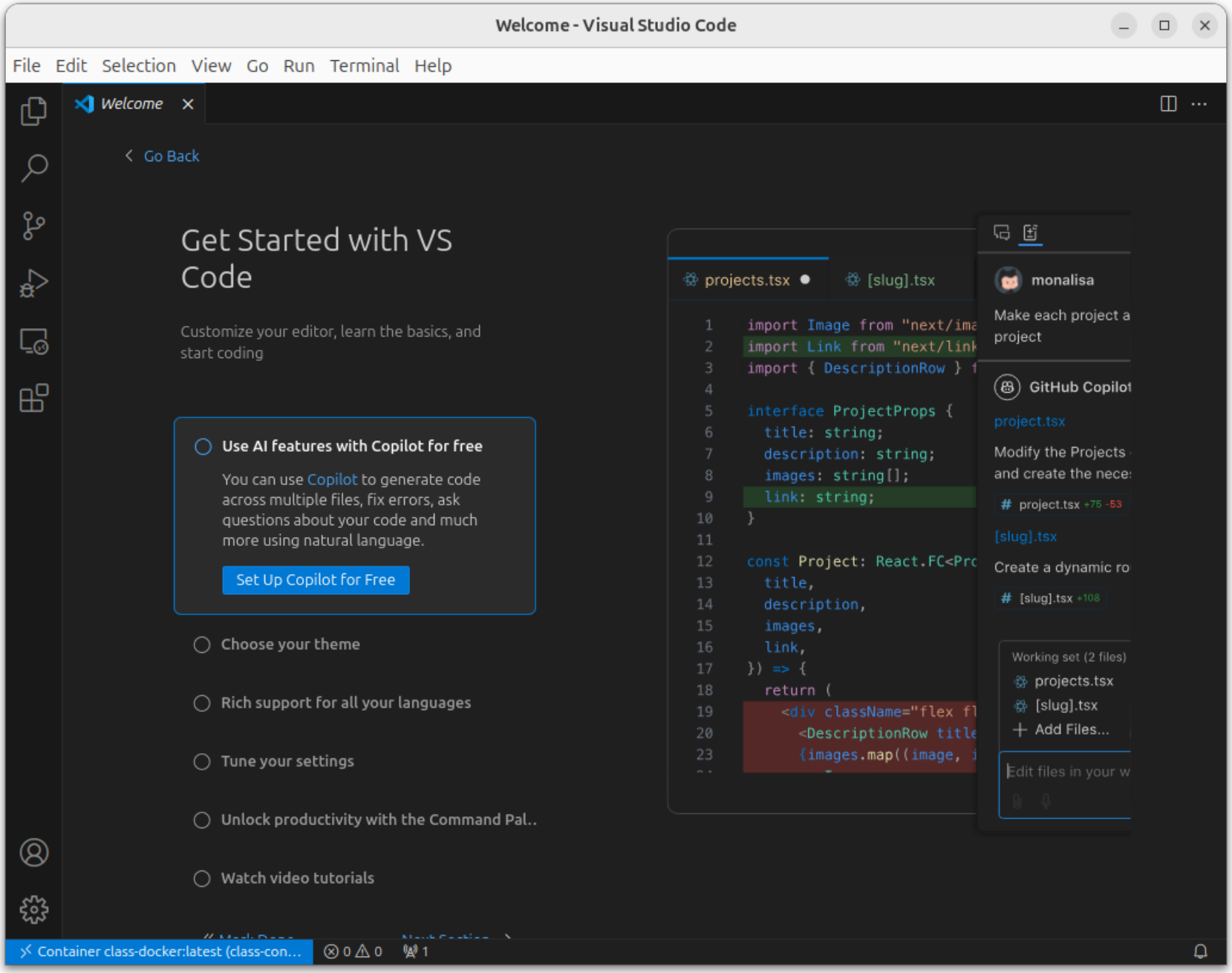
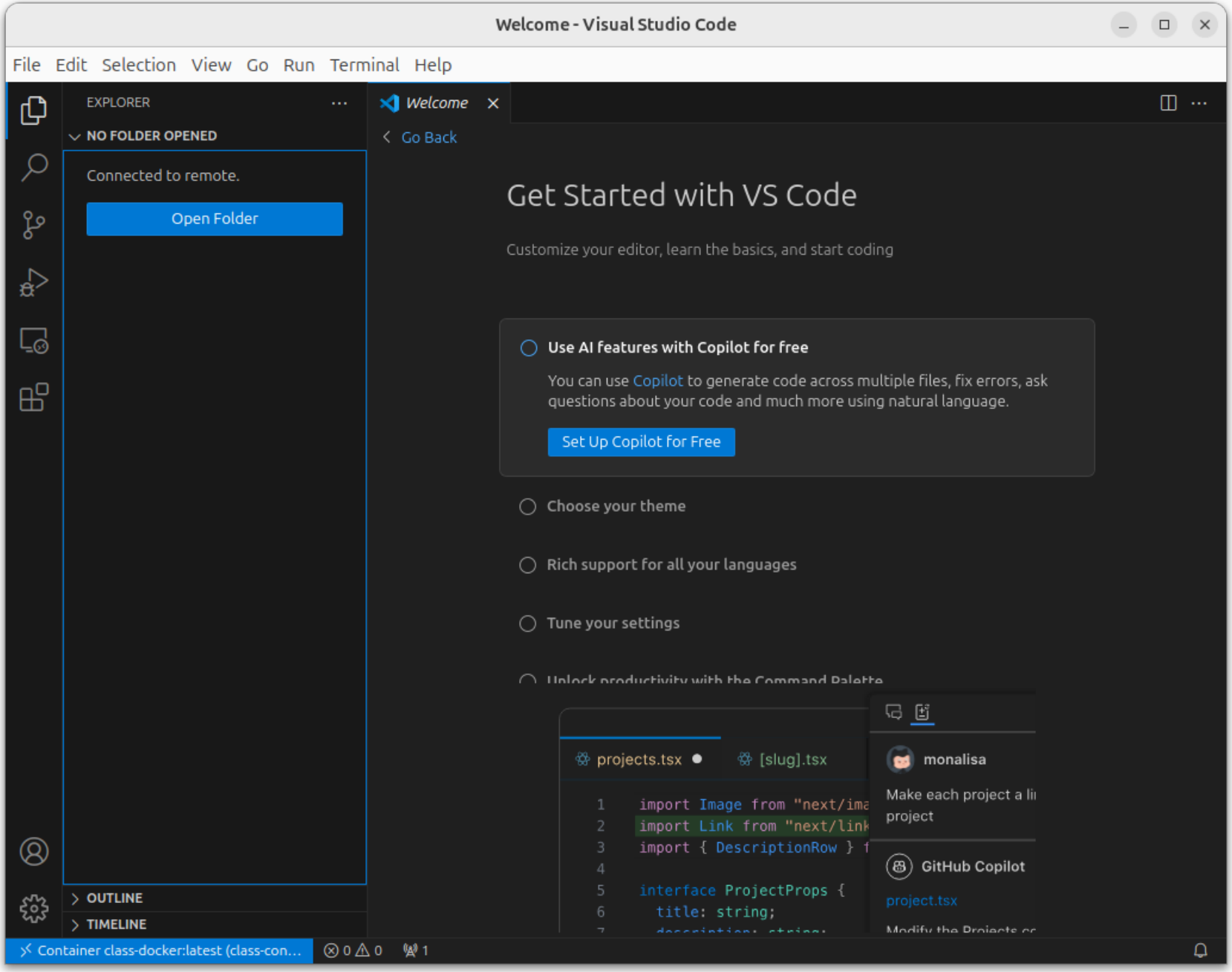
A window will pop up with a different message in the bottom left.



Connect using the Remote - Containers Extension

2. **Open the workspace**:
    - VSCode will open a new window where you can find the container's `/workspace` directory.
    - You can now edit, debug, and execute code directly inside the container.
    - You will have to install other extensions as needed, such as the Python one and the Jupyter one.


Welcome - Visual Studio Code
File Edit Selection View Go Run Terminal Help
EXPLORER
NO FOLDER OPENED
Connected to remote.
Open Folder
OUTLINE
TIMELINE
Welcome
Go Back
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Make each project a li
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project.tsx
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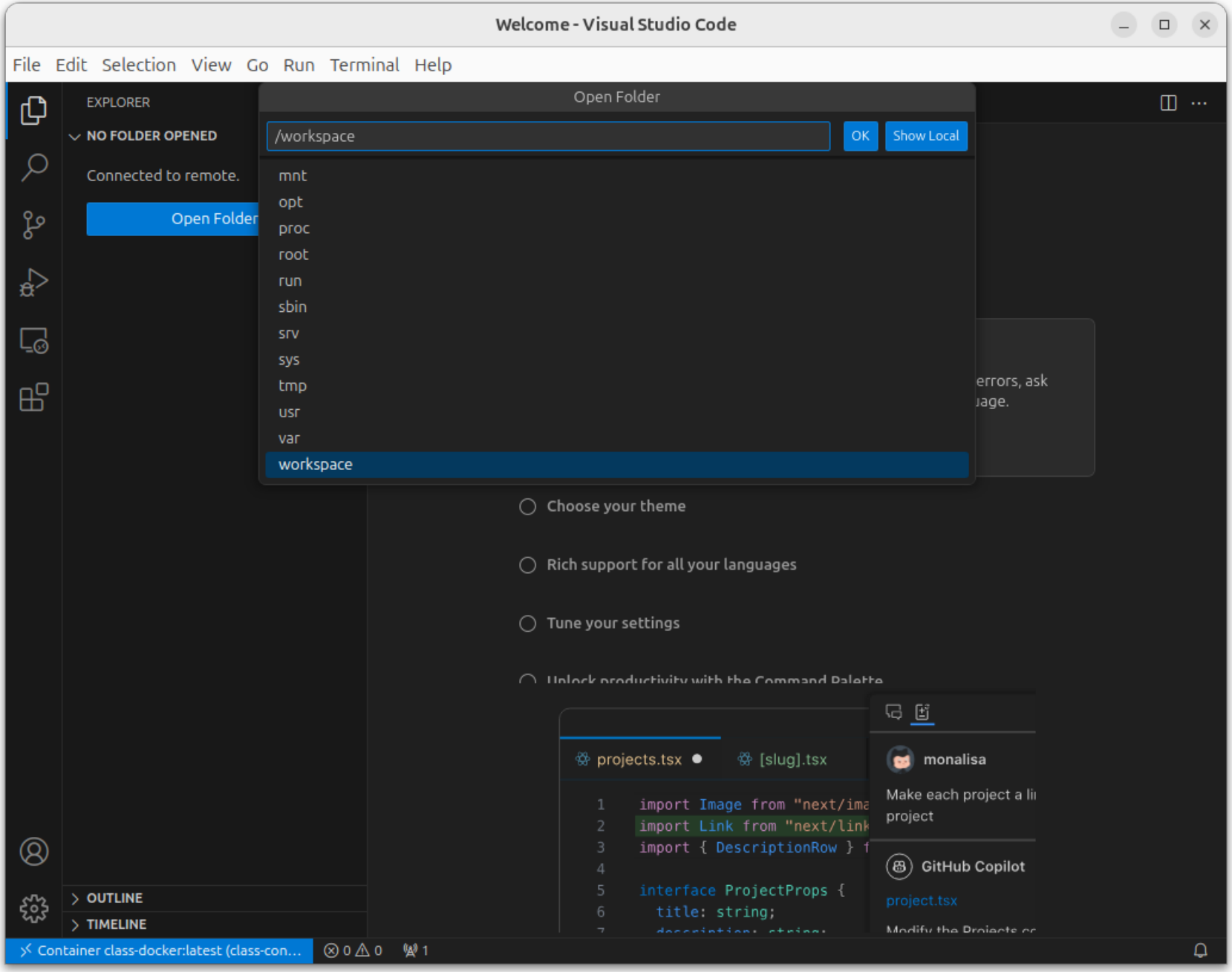
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File Edit Selection View Go Run Terminal Help
EXPLORER
NO FOLDER OPENED
Connected to remote.
Open Folder
Open Folder
/workspace
OK
Show Local
mnt
opt
proc
root
run
sbin
srv
sys
tmp
usr
var
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errors, ask
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Choose your theme
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Container class-docker:latest (class-con...
0 0
1

Test your setup

1. **Create a Python file**:
   - Inside the container, create a file named `test.py`:

```
print("Hello from Docker!")
```

2. **Run the file**:
   - Use the integrated terminal in VSCode to run:

```
python3 test.py
```

   - Verify that the output is `Hello from Docker!`.

Troubleshooting

1. **No container found**:
   - Verify the container is running using `docker ps`.
2. **VSCode cannot attach to container**:
   - Check that the "Remote - Containers" extension is installed.
   - Ensure Docker Desktop is running.
3. **Python not found**:
   - Verify Python is installed in the container:

```
python3 --version
```

Summary

This setup allows you to use a full-featured development environment while keeping your code and dependencies isolated in a container.