



Developing Open LLM
applications with



Apache OpenServerless



The screenshot shows the GitHub user profile for `mastrogpt`. At the top, there's a navigation bar with icons for menu, search, and user profile. Below it, the user name `mastrogpt` is displayed next to a GitHub icon. The main content area features a repository card for `MastroGPT`, which has a blue cloud icon. It shows 9 followers and a link to `https://mastrogpt.com`. A "Follow" button is present. Below the repository card, there's a "View as: Public" dropdown, a message about viewing as a public user, and a note about creating a README file. The "Pinned" section contains a link to the `mastrogpt-starter` repository, which is public, written in Python, and has 1 pull request. A "Customize pins" link is also visible.

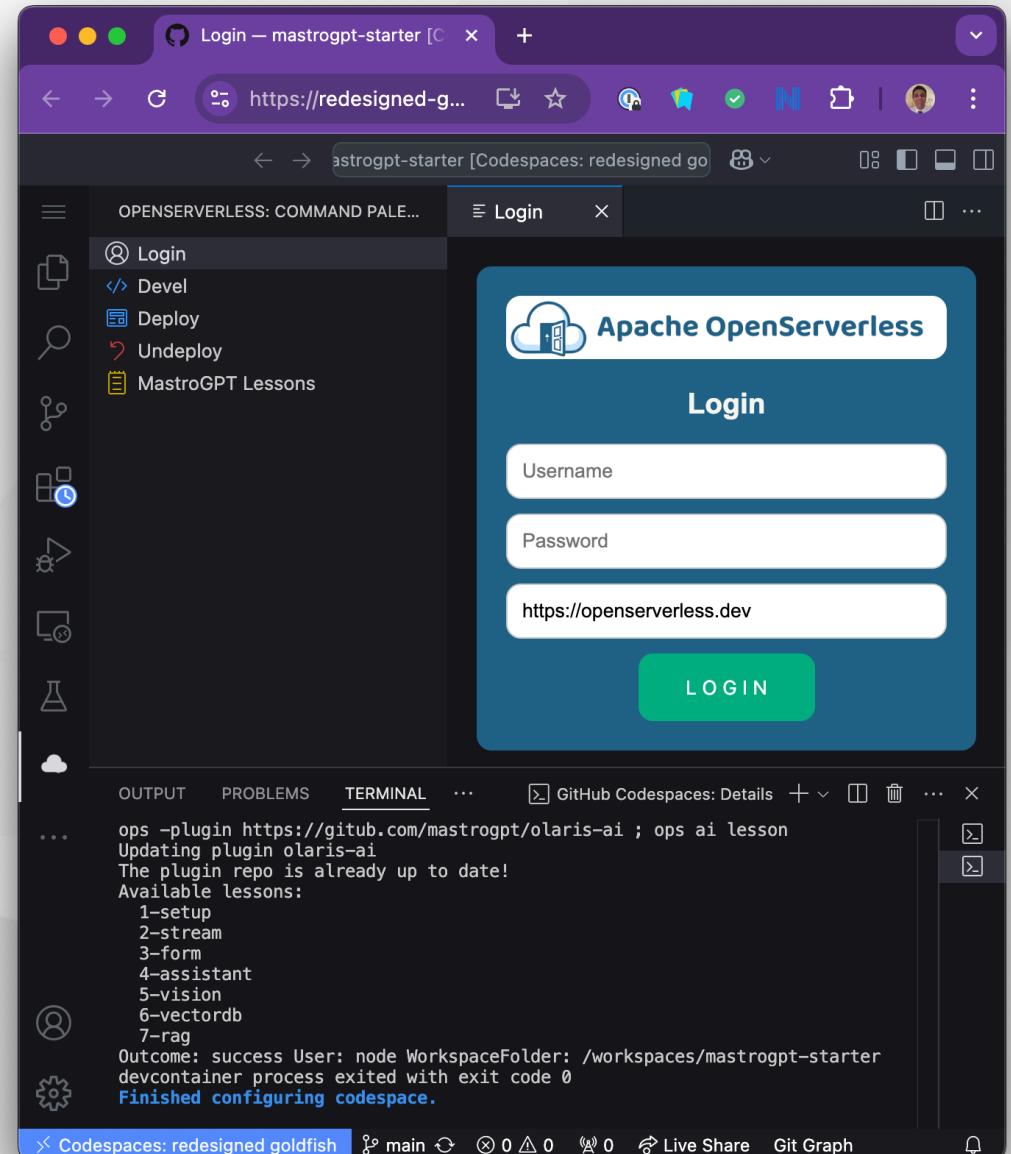
<https://github.com/mastrogpt/>

- Go to `mastrogpt-starter`
- Launch the codespace

The screenshot shows the GitHub Codespaces interface for the `mastrogpt-starter` repository. The top navigation bar includes "Go to file", a "+" button, and a "Code" dropdown set to "Codespaces". Below the bar, there are tabs for "Local", "Codespaces", and "Copilot", with "Codespaces" being active. A message states "No codespaces" and "You don't have any codespaces with this repository checked out". A prominent blue "Create codespace on main" button is centered. At the bottom, there's a note about codespace usage being paid for by `sciacbarracom`.

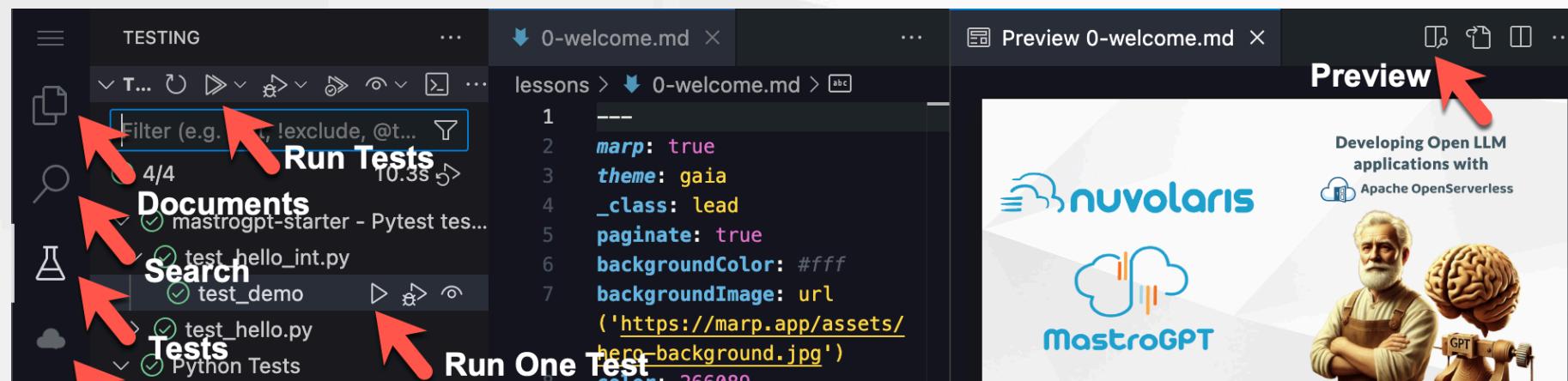
Environment Ready

- It takes a bit to download images and start...
- Wait until you see the **OpenServerless Cloud** icon
- Click on the **Cloud** icon
- Click on **Login** and put your credentials



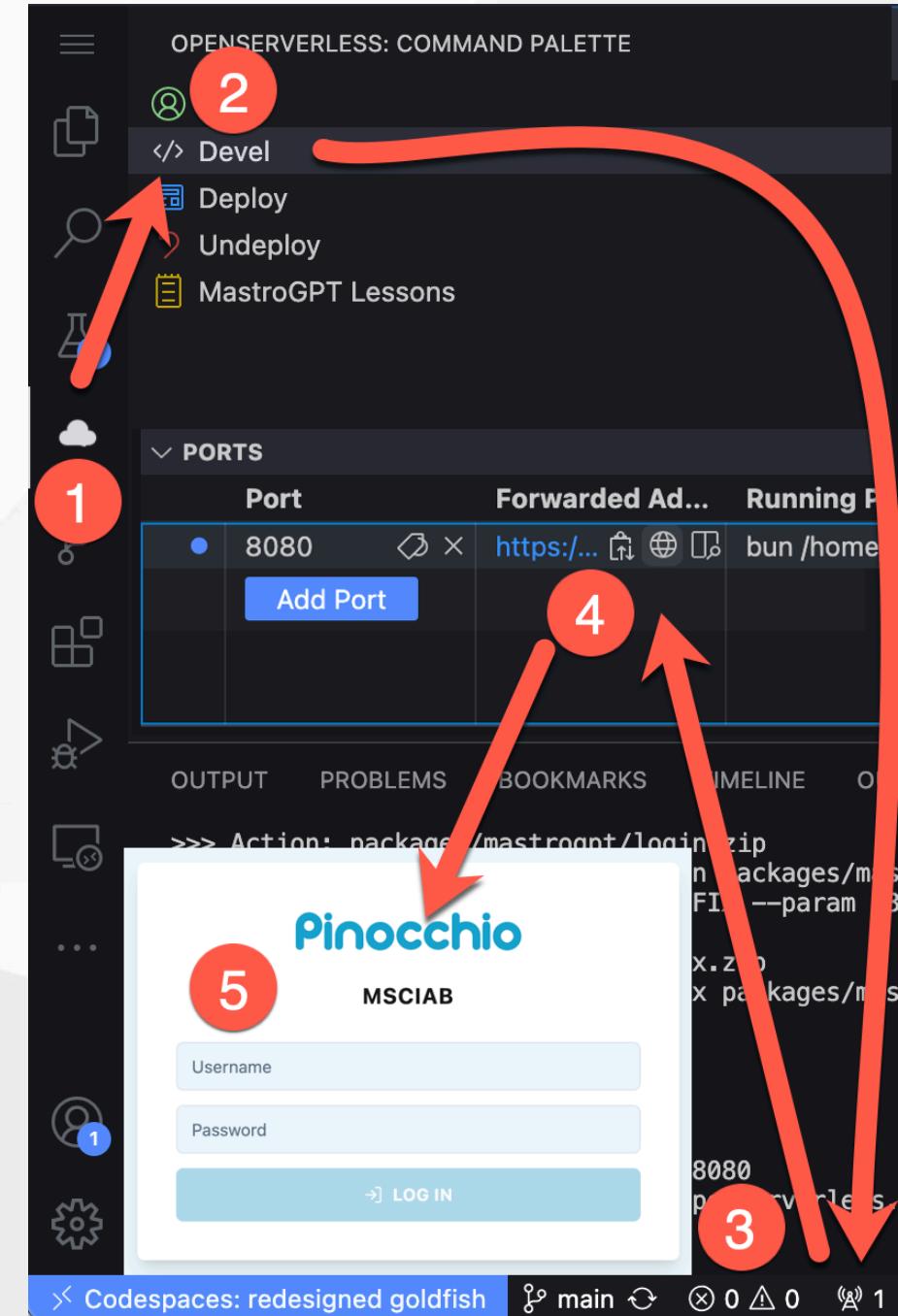
Check Lesson, Deployment, Tests

- Click on **Cloud** icon then click on **Deploy**
- Click on **Documents** icon, then open the file `lessons/0-welcome.md` and click on the **Preview** icon
- Click on the **Tests** icon, then run all the tests, ensuring all the tests pass



Development Mode

1. Click **Cloud** icon
2. Click **Devel** button
3. Click on **Antenna** icon
4. Click on **World** icon
5. Login into Pinocchio with
`pinocchio / geppetto`
6. Play a bit with the UI



Pinocchio - Nuvolaris

https://redesigned-goldfish-rr594rwjr53xgq4-8080.app.github.dev

msciab Demo Side View

Switch Menu

BOT 05:52

Welcome, this is MastroGPT demo chat showing what it can display.
Please select: 'code', 'chess', 'html', 'message'.

YOU 05:52 chess

BOT 05:52

Check this chess position.

rnbqkbnr/pp1ppppp/8/2p5/4P3/8/PPPP1PPP/RNBQKBNR
w KQkq c6 0 2

Upload

Enter your message... Send

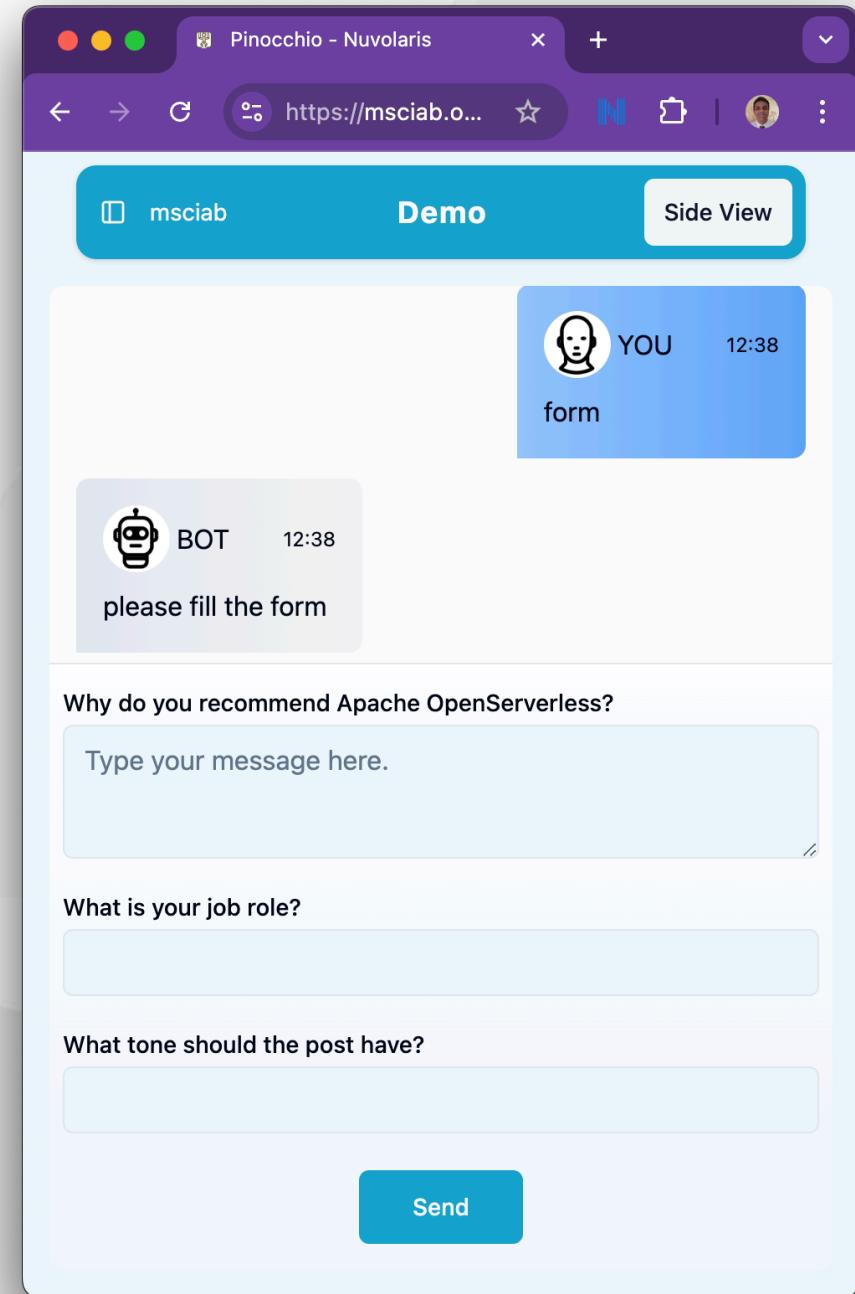
Menu

Display

Chat

Pinocchio

- **Chat** interface to serverless functions (called **actions**)
- **Authentication** with a **login** action
- **Menu** configurable an **index** action
- **Upload** files in S3 storage
- Customizable **rendering** of content (**display** action)
- **Form** support



Use the Terminal

- Open the terminal: Menu >> Terminal >> New Terminal
- Use the terminal to change the password and redeploy the login

```
$ ops ai user update pinocchio
Enter your password: *****
updated /home/msciab/mastrogpt2/starter/packages/mastrogpt/login/users.json
$ ops ide deploy mastrogpt/login
<...omissis...>
ok: updated action mastrogpt/login
```

Notes on GitHub Codespaces

- Free up to 120 hours
- Recommended: **GitHub >> Settings >> Codespaces**
- Change: **Default Idle Timeout** to 5 minutes
- You can also work locally:
 - wse a local **VScode**
 - wse a local **Docker**

Editor preference

Visual Studio Code

Connect to the cloud from your local desktop client. Requires [Visual Studio Code](#) with the [GitHub Codespaces](#) extension.

Visual Studio Code for the Web

Edit and preview changes straight from the browser.

JupyterLab [Preview](#)

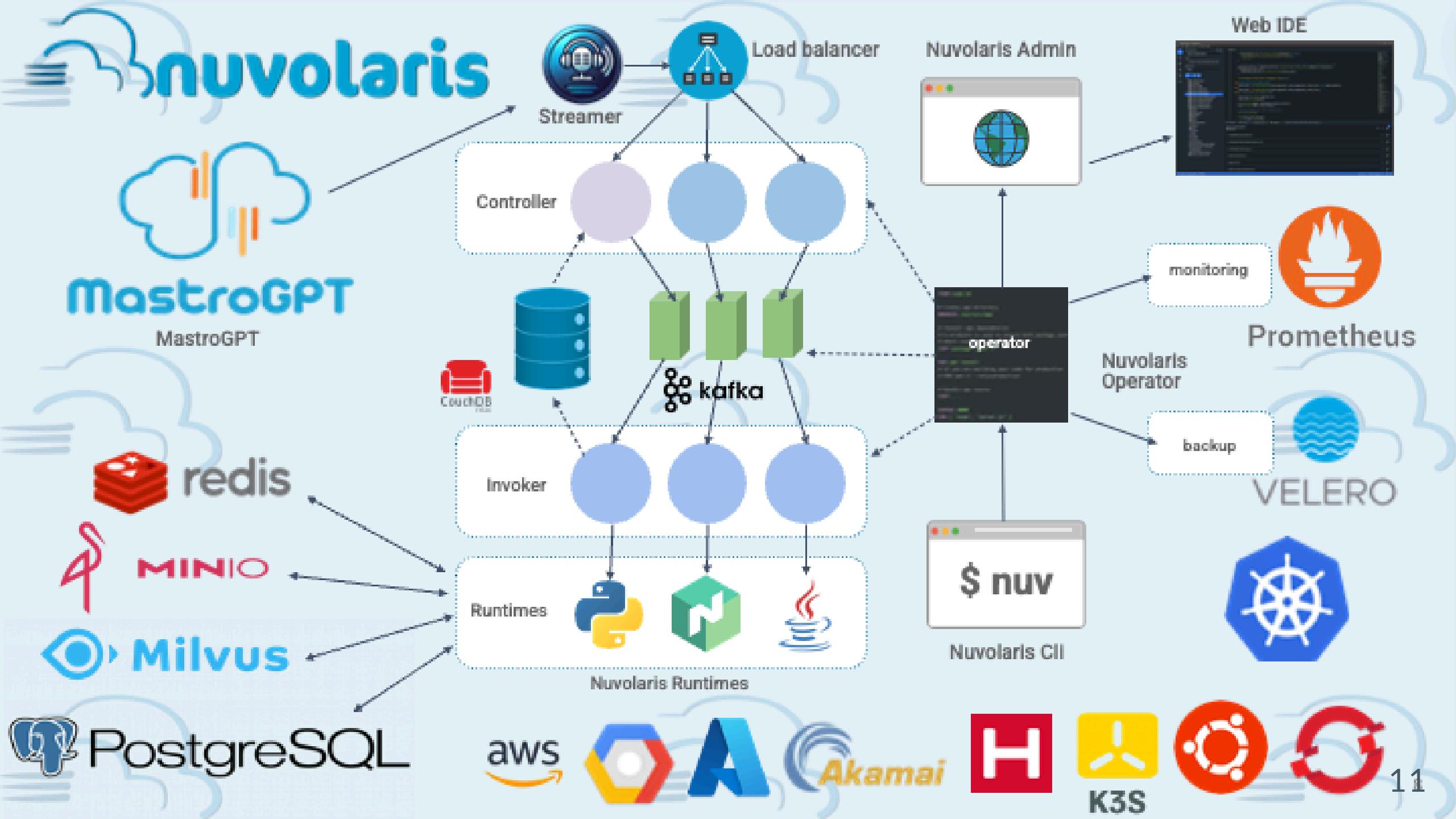
Edit and run notebooks from the browser with JupyterLab.

Default idle timeout

A codespace will suspend after a period of inactivity. You can specify a default idle timeout value, which will apply to all codespaces created after the default is changed. You will be charged for the entire time your codespace is running, even if it is idle. The maximum value is 240 minutes (4 hours).

5 minutes

Support



How to get an account?

Free accounts by Nuvolaris on
openserverless.dev

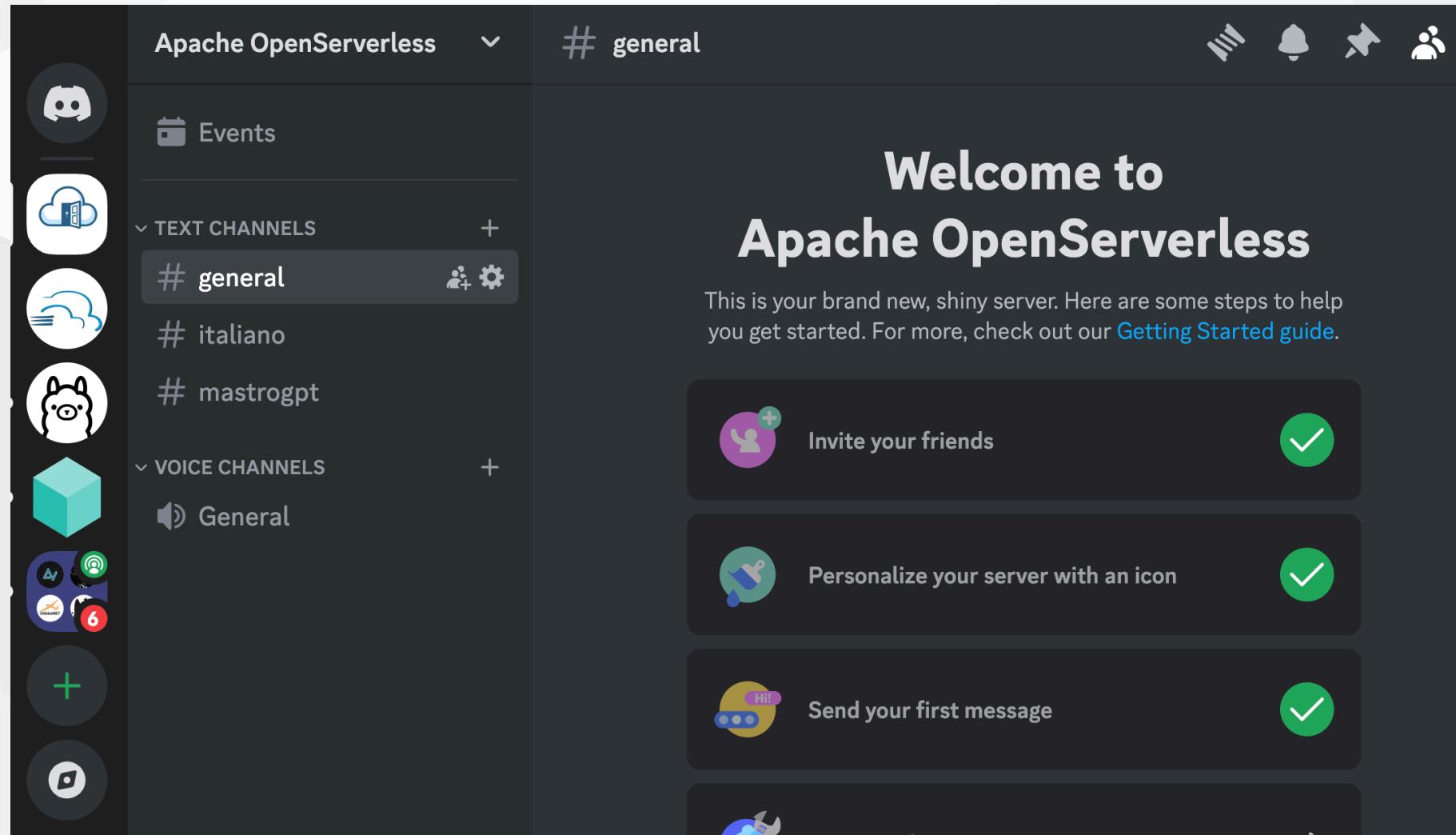
- Ask for an account on
<https://mastrogpt.com>
- Contact us Linkedin,
Discord, Email...

<https://linkedin.com/in/msciab>

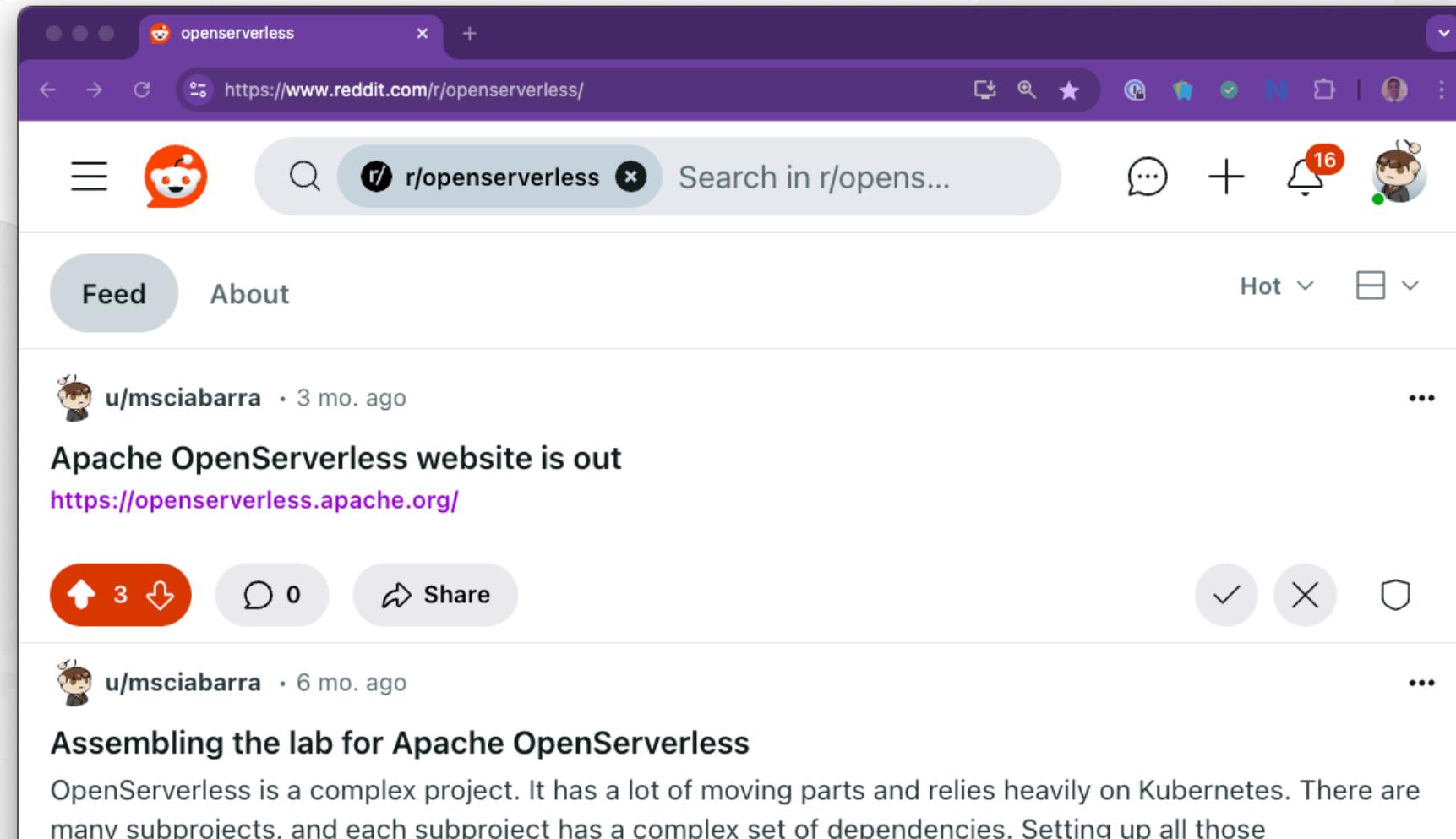
You can also self-host it, info:

<https://openserverless.apache.org>

Discord: bit.ly/openserverless-discord



Reddit: [reddit.com/r/openserverless](https://www.reddit.com/r/openserverless/)



What is next?

Select a lesson to download

The screenshot shows a dark-themed user interface for a command palette. On the left, there's a sidebar with icons for Login, Devel, Deploy, Undeploy, and MastroGPT Lessons, with a notification badge '1' over the lessons icon. The main area has a title 'Select a lesson to start' and a numbered list of seven options:

- 1 Workspace setup
- 2 Workspace setup Every of responses by AI systems, providing immediate feedback or information
- 3 Form Support
- 4 AI assistants process and deliver responses, helping users with tasks
- 5 AI vision enables machines to interpret visual data
- 6 A vector database stores data as vectors for efficient search and similarity comparison
- 7 Retrieval-Augmented Generation combines information retrieval with AI generation

A small URL 'backgroundImage: url('https://...)' is visible at the bottom of the palette.