
Ampliación de Fundamentos de Hardware

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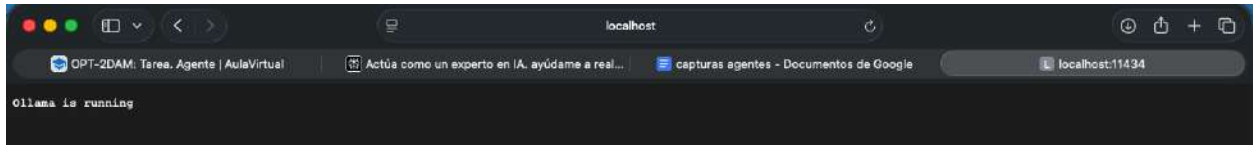
2ºASIR

Práctica IA. Agente



Práctica

Instalé Ollama en el sistema para que actúe como servidor local de modelos. En esta captura se ve el servicio corriendo, permitiendo que la GPU local gestione la carga del modelo de IA.



Aquí se ejecuta el comando para arrancar Ollama y descargar el modelo gpt-oss:20b. Este último será el "cerebro" que el agente OpenCode utilizará para razonar y ejecutar tareas.

```
aulaateca26@Minideaaaateca26 ~ % brew services start ollama
==> Successfully started `ollama` (label: homebrew.mxcl.ollama)
aulaateca26@Minideaaaateca26 ~ % ollama pull gpt-oss:20b
pulling manifest
pulling e7b273f96360: 100% ██████████ 13 GB
pulling fa6710a93d78: 100% ██████████ 7.2 KB
pulling f60356777647: 100% ██████████ 11 KB
pulling d8ba2f9a17b3: 100% ██████████ 18 B
pulling 776beb3adb23: 100% ██████████ 489 B
verifying sha256 digest
writing manifest
success
aulaateca26@Minideaaaateca26 ~ %
```

Instalamos Opencode:

```
aulaateca26@Minideaaaateca26 ~ % brew install opencode
==> Fetching downloads for: opencode
✓ Bottle Manifest opencode (1.1.30) Downloaded 27.0KB/ 27.0KB
✓ Bottle Manifest ada-url (3.4.1) Downloaded 8.5KB/ 8.5KB
✓ Bottle Manifest brotli (1.2.0) Downloaded 8.0KB/ 8.0KB
✓ Bottle Manifest c-ares (1.34.6) Downloaded 7.5KB/ 7.5KB
✓ Bottle Manifest hdrhistogram_c (0.11.9) Downloaded 7.7KB/ 7.7KB
✓ Bottle Manifest icu4c@78 (78.2) Downloaded 9.7KB/ 9.7KB
✓ Bottle Manifest fmt (12.1.0) Downloaded 7.3KB/ 7.3KB
✓ Bottle Manifest libnghttp3 (1.15.0) Downloaded 7.3KB/ 7.3KB
✓ Bottle Manifest libngtcp2 (1.20.0) Downloaded 9.3KB/ 9.3KB
✓ Bottle Manifest llhttp (9.3.0) Downloaded 7.2KB/ 7.2KB
✓ Bottle fmt (12.1.0) Downloaded 282.9KB/282.9KB
✓ Bottle hdrhistogram_c (0.11.9) Downloaded 43.6KB/ 43.6KB
✓ Bottle Manifest ripgrep (15.1.0) Downloaded 8.8KB/ 8.8KB
✓ Bottle Manifest libnghttp2 (1.68.0) Downloaded 7.3KB/ 7.3KB
✓ Bottle Manifest simdjson (4.2.4) Downloaded 7.4KB/ 7.4KB
✓ Bottle Manifest node (25.5.0) Downloaded 27.5KB/ 27.5KB
✓ Bottle Manifest uvwasi (0.0.23) Downloaded 8.3KB/ 8.3KB
✓ Bottle uvwasi (0.0.23) Downloaded 70.0KB/ 70.0KB
✓ Bottle llhttp (9.3.0) Downloaded 36.7KB/ 36.7KB
✓ Bottle ada-url (3.4.1) Downloaded 344.6KB/344.6KB
✓ Bottle libnghttp3 (1.15.0) Downloaded 188.8KB/188.8KB
✓ Bottle libnghttp2 (1.68.0) Downloaded 220.7KB/220.7KB
✓ Bottle brotli (1.2.0) Downloaded 793.5KB/793.5KB
✓ Bottle c-ares (1.34.6) Downloaded 304.0KB/304.0KB
✓ Bottle libngtcp2 (1.20.0) Downloaded 397.1KB/397.1KB
✓ Bottle simdjson (4.2.4) Downloaded 1.2MB/ 1.2MB
✓ Bottle ripgrep (15.1.0) Downloaded 2.2MB/ 2.2MB
✖ Bottle icu4c@78 (78.2) ##### Downloading 15.1MB/ 31.8MB
✖ Bottle node (25.5.0) ##### Downloading 16.9MB/ 18.2MB
✖ Bottle opencode (1.1.30) ##### Downloading 20.5MB/ 33.1MB
```

Configuramos con nano el archivo de opencode. Aquí le especificamos el modelo que queremos utilizar y le ponemos una URL para que Opencode sepa la ubicación del modelo.

```
UW PICO 5.09 File: /Users/aulaateca26/.config/opencode/opencode.json Modified
{
  "$schema": "https://opencode.ai/config.json",
  "provider": {
    "ollama": {
      "npm": "@ai-sdk/openai-compatible",
      "name": "Ollama",
      "options": {
        "baseUrl": "http://192.168.7.114:11434/v1"
      },
      "models": {
        "gpt-oss:20b": { "name": "gpt-oss:20b" }
      }
    }
  }
}
```

Hemos creado la carpeta test, donde vamos a guardar varios archivos que nos sirven para que a la hora de que le pidamos algo al Opencode, éste nos responda con lo que queremos. Para ello, hemos decidido agregar un archivo sql y un php.

```
aulaateca26@Minideaaaateca26 ~ % mkdir ~/test
aulaateca26@Minideaaaateca26 ~ % cd ~/test
aulaateca26@Minideaaaateca26 test % mkdir -p src/incidentes db config
aulaateca26@Minideaaaateca26 test % echo "<?php echo 'Helpdesk multi-tenant v0.1'; ?>" > index.php

aulaateca26@Minideaaaateca26 test % echo "-- Tabla empresas" > db/schema.sql

aulaateca26@Minideaaaateca26 test % echo "<?php // Config RBAC" > config/roles.php

aulaateca26@Minideaaaateca26 test % quit
zsh: command not found: quit
aulaateca26@Minideaaaateca26 test % exit

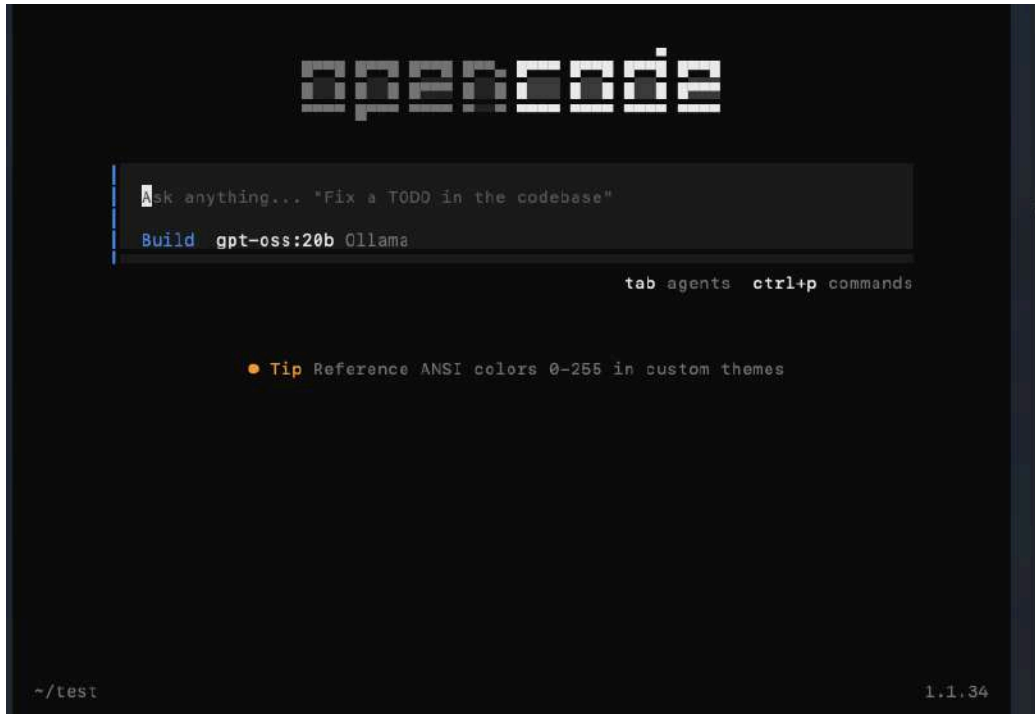
Saving session...
...copying shared history...
...saving history...truncating history files...
...completed.
Deleting expired sessions...      2 completed.

[Proceso completado]
```

Arrancamos Opencode desde la carpeta de test.

```
Last login: Wed Jan 28 20:18:27 on ttys001
aulaateca26@Minideaaaateca26 ~ % cd ~/test
aulaateca26@Minideaaaateca26 test % opencode
```

El Opencode abierto en el terminal con las funciones de “build” y “plan” y el modelo empleado. Build sirve para editar o escribir códigos o archivos, y ejecutar comandos; y Plan sirve para analizar y proponer soluciones. En la parte inferior izquierda se puede ver la carpeta donde está el Opencode alojado..



The screenshot shows the Opencode terminal interface. At the top, the word "opencode" is displayed in a stylized, pixelated font. Below it, a text input field contains the prompt "Ask anything... 'Fix a TODO in the codebase'". The "Build" command is entered in the input field, followed by the model name "gpt-oss:20b" and the provider "Ollama". Below the input field, the text "tab agents ctrl+p commands" is visible. A tip message reads: "• Tip Reference ANSI colors 0-255 in custom themes". At the bottom left, the terminal path is shown as "~/test", and at the bottom right, the version number "1.1.34" is displayed.

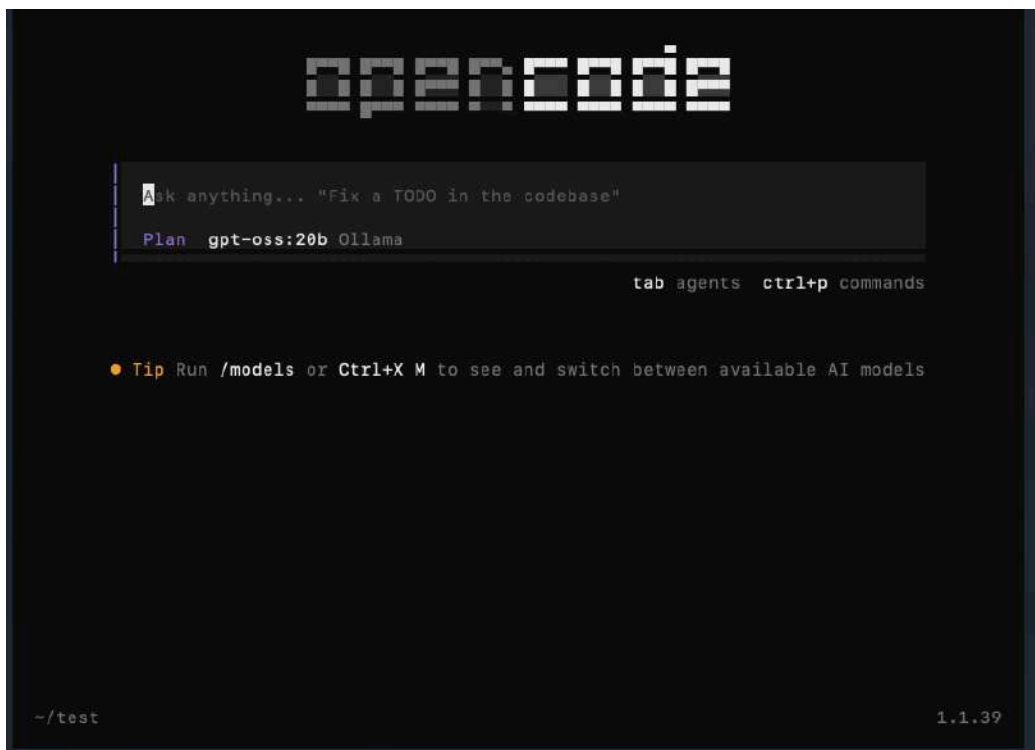
```
opencode

Ask anything... "Fix a TODO in the codebase"
Build gpt-oss:20b Ollama

tab agents ctrl+p commands

• Tip Reference ANSI colors 0-255 in custom themes

~/test 1.1.34
```



The screenshot shows the Opencode terminal interface. At the top, the word "opencode" is displayed in a stylized, pixelated font. Below it, a text input field contains the prompt "Ask anything... 'Fix a TODO in the codebase'". The "Plan" command is entered in the input field, followed by the model name "gpt-oss:20b" and the provider "Ollama". Below the input field, the text "tab agents ctrl+p commands" is visible. A tip message reads: "• Tip Run /models or Ctrl+X M to see and switch between available AI models". At the bottom left, the terminal path is shown as "~/test", and at the bottom right, the version number "1.1.39" is displayed.

```
opencode

Ask anything... "Fix a TODO in the codebase"
Plan gpt-oss:20b Ollama

tab agents ctrl+p commands

• Tip Run /models or Ctrl+X M to see and switch between available AI models

~/test 1.1.39
```

Éste es el menú principal de OpenCode.

