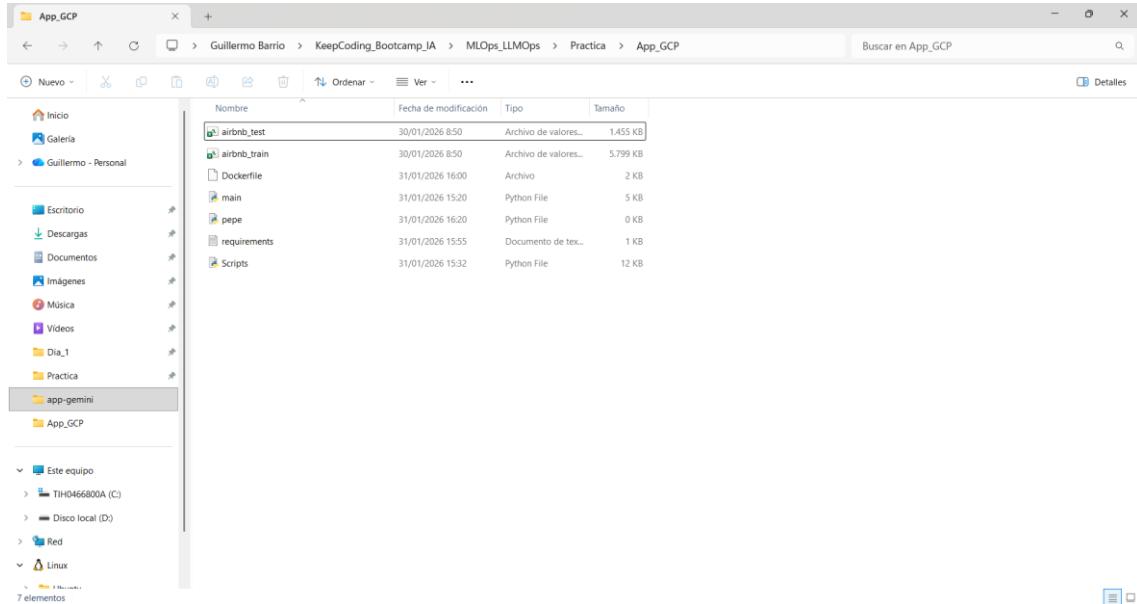


Copia de pantallas del despliegue de la app en GCP

Aplicación: <https://airbnb-api-b2nrnqkdvg-ez.a.run.app/docs>

Para subir la aplicación lo he hecho desde la propia línea de comandos de mi PC, siguiendo las instrucciones de Gemini 3. Esta captura de pantalla es la del directorio en local. El fichero pepe es un error, que no interviene.



Esta es el pantallazo inicial de Gemini 3, donde me dice que me conecta a Google Cloud desde la línea de comandos.

The screenshot shows the Gemini web interface. On the left, there's a sidebar with various options like 'Nueva conversación', 'Mis cosas', 'Gems', 'Conversaciones', 'Dependencias de Google Cloud para ...', 'Actividad', 'Configuración y ayuda', and location settings for 'Madrid, España'. The main area has a title 'Gemini' and a sub-section 'Dependencias de Google Cloud para Python'. It lists steps for deployment: 1. Abre la terminal en esa carpeta. 2. Loguéate en Google Cloud (si no lo has hecho ya). A terminal window shows the command 'gcloud auth login'. Step 3 says 'Ejecuta el comando de despliegue que te pasé antes.' Below this, there's a section 'Un detalle sobre tus datos' with code snippets for reading CSV files. At the bottom, there's a text input field 'Pregunta a Gemini 3' and a toolbar with icons for 'Herramientas', 'Rápido', and a microphone.

Después Gemini me va dando los comandos, comenzando con la configuración del proyecto, y el enable de los servicios necesarios.

The screenshot shows the Google Gemini interface. On the left, there's a sidebar with options like 'Nueva conversación', 'Mis cosas', 'Gems', 'Conversaciones', 'Dependencias de Google Cloud para Python' (which is selected), 'Convertir Curl a Python con Requests', 'Forgetting Names: Anomia and Mitiga...', 'Temperature: A Derived Concept Fro...', 'OnlyFans: Contenido No Para Adultos', 'Solución Error Google Calendar', 'Actividad', and 'Configuración y ayuda'. The main area has a title 'Dependencias de Google Cloud para Python'. It contains two sections: '1. Configura tu proyecto' and '2. Habilita los servicios necesarios'. Under '1. Configura tu proyecto', it says 'Primero, asegúrate de que la herramienta gcloud apunta a tu proyecto específico.' followed by a Bash code block:

```
gcloud config set project app-mlops-486015
```

. Under '2. Habilita los servicios necesarios', it says 'Si es la primera vez que despliegas, necesitas activar las APIs de Cloud Build (para crear la imagen) y Cloud Run (para ejecutarla).' followed by another Bash code block:

```
gcloud services enable \
    artifactregistry.googleapis.com \
    cloudbuild.googleapis.com \
    run.googleapis.com
```

. At the bottom, there's a text input field 'Pregunta a Gemini 3' with the placeholder 'Herramientas' and a 'Rápido' button.

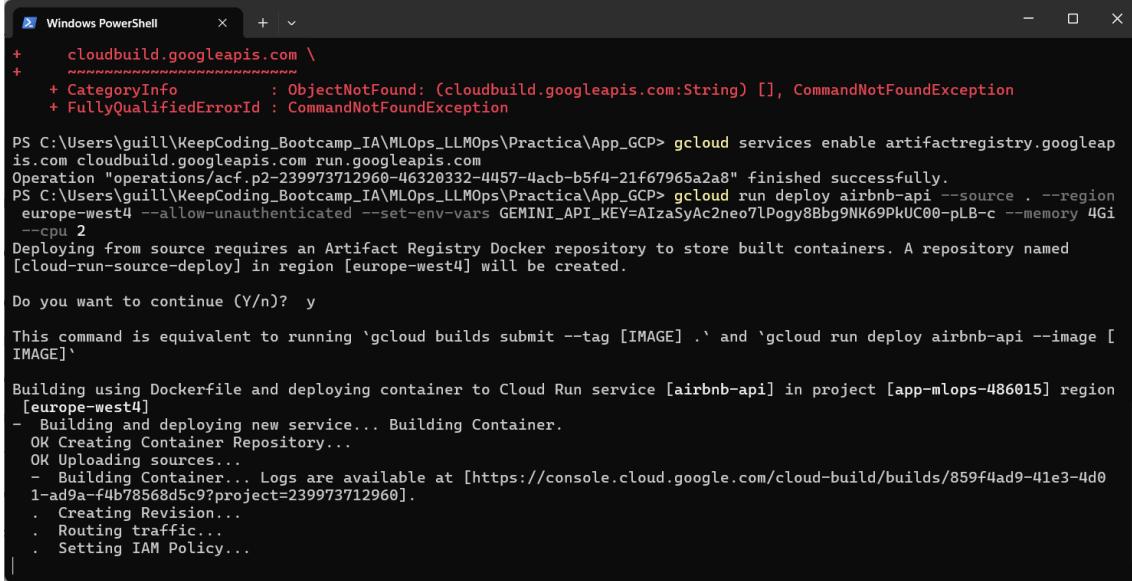
Después Gemini me dio el comando para correr Google Run. Cambié europe-west1 por europe-west4, y puse la clave de Gemini. El fichero .env no fue necesario.

This screenshot shows the same Google Gemini interface as the previous one, but the main content has changed. The title is now 'Dependencias de Google Cloud para Python'. It shows a section titled '3. Despliegue de la aplicación (La "magia")'. It says 'Este comando hará tres cosas a la vez: enviará tu código a la nube, construirá la imagen usando tu Dockerfile y la desplegará en una URL pública.' and 'Aquí es donde configuraremos la GEMINI_API_KEY de forma segura:'. Below this is a Bash code block:

```
gcloud run deploy airbnb-api \
    --source .
    --region europe-west1 \
    --allow-unauthenticated \
    --set-env-vars GEMINI_API_KEY=tu_clave_aqui \
    --memory 4Gi \
    --cpu 2
```

. At the bottom, there's a section titled '¿Qué significan estos parámetros?' with a note about the '--source' parameter: 'Le dice a Google Cloud que use el código de la carpeta actual y busque el'. There's also a text input field 'Pregunta a Gemini 3' with the placeholder 'Herramientas' and a 'Rápido' button.

Esta captura de pantalla muestra la creación de la app en proceso, que duró unos 25 minutos como mucho.



```
+   cloudbuild.googleapis.com \
+   ~~~~~
+ CategoryInfo          : ObjectNotFound: (cloudbuild.googleapis.com:String) [], CommandNotFoundException
+ FullyQualifiedErrorId : CommandNotFoundException

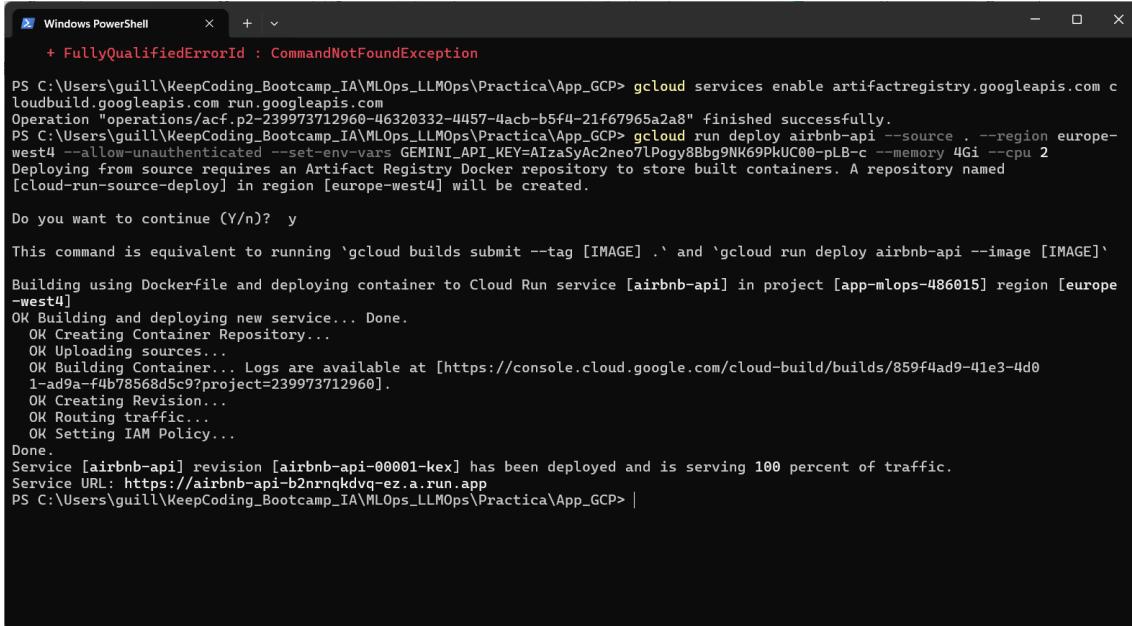
PS C:\Users\guill\KeepCoding_Bootcamp_IA\MLOps_LLMOps\Practica\App_GCP> gcloud services enable artifactregistry.googleapis.com cloudbuild.googleapis.com run.googleapis.com
Operation "operations/acf/p2-239973712960-46320332-4457-4acb-b5f4-21f67965a2a8" finished successfully.
PS C:\Users\guill\KeepCoding_Bootcamp_IA\MLOps_LLMOps\Practica\App_GCP> gcloud run deploy airbnb-api --source . --region europe-west4 --allow-unauthenticated --set-env-vars GEMINI_API_KEY=AIzaSyAc2neo7lPogy8Bbg9NK69PkUC00-pLB-c --memory 4Gi --cpu 2
Deploying from source requires an Artifact Registry Docker repository to store built containers. A repository named [cloud-run-source-deploy] in region [europe-west4] will be created.

Do you want to continue (Y/n)? y

This command is equivalent to running `gcloud builds submit --tag [IMAGE] .' and `gcloud run deploy airbnb-api --image [IMAGE]`

Building using Dockerfile and deploying container to Cloud Run service [airbnb-api] in project [app-mlops-486015] region [europe-west4]
- Building and deploying new service... Building Container.
OK Creating Container Repository...
OK Uploading sources...
- Building Container... Logs are available at [https://console.cloud.google.com/cloud-build/builds/859f4ad9-41e3-4d01-ad9a-f4b78568d5c9?project=239973712960].
. Creating Revision...
. Routing traffic...
. Setting IAM Policy...
```

Esta es la pantalla una vez a terminado el proceso. Aparece la URL de la aplicación.



```
+ FullyQualifiedErrorId : CommandNotFoundException

PS C:\Users\guill\KeepCoding_Bootcamp_IA\MLOps_LLMOps\Practica\App_GCP> gcloud services enable artifactregistry.googleapis.com cloudbuild.googleapis.com run.googleapis.com
Operation "operations/acf/p2-239973712960-46320332-4457-4acb-b5f4-21f67965a2a8" finished successfully.
PS C:\Users\guill\KeepCoding_Bootcamp_IA\MLOps_LLMOps\Practica\App_GCP> gcloud run deploy airbnb-api --source . --region europe-west4 --allow-unauthenticated --set-env-vars GEMINI_API_KEY=AIzaSyAc2neo7lPogy8Bbg9NK69PkUC00-pLB-c --memory 4Gi --cpu 2
Deploying from source requires an Artifact Registry Docker repository to store built containers. A repository named [cloud-run-source-deploy] in region [europe-west4] will be created.

Do you want to continue (Y/n)? y

This command is equivalent to running `gcloud builds submit --tag [IMAGE] .' and `gcloud run deploy airbnb-api --image [IMAGE]`

Building using Dockerfile and deploying container to Cloud Run service [airbnb-api] in project [app-mlops-486015] region [europe-west4]
OK Building and deploying new service... Done.
OK Creating Container Repository...
OK Uploading sources...
OK Building Container... Logs are available at [https://console.cloud.google.com/cloud-build/builds/859f4ad9-41e3-4d01-ad9a-f4b78568d5c9?project=239973712960].
OK Creating Revision...
OK Routing traffic...
OK Setting IAM Policy...
Done.
Service [airbnb-api] revision [airbnb-api-00001-kex] has been deployed and is serving 100 percent of traffic.
Service URL: https://airbnb-api-b2nrnqkdvq-ez.a.run.app
PS C:\Users\guill\KeepCoding_Bootcamp_IA\MLOps_LLMOps\Practica\App_GCP> |
```

Esta es la aplicación en la web, que de momento funciona OK!!

The screenshot shows a browser window with multiple tabs open. The active tab is titled "FastAPI - Swagger UI". The page displays the API documentation for a FastAPI application version 0.1.0, which is OAS 3.1 compliant. The "default" endpoint is selected, showing five GET requests:

- GET /numeros Return Name
- GET /media_por_noche Media
- GET /random_forest_regressor Regresor
- GET /zero-shot-classification Zero Shot Classification
- GET /gemini_comparison Gemini Flash

Below the endpoints, there is a section titled "Schemas" containing definitions for two error models:

- HTTPValidationError > Expand all `object`
- ValidationError > Expand all `object`