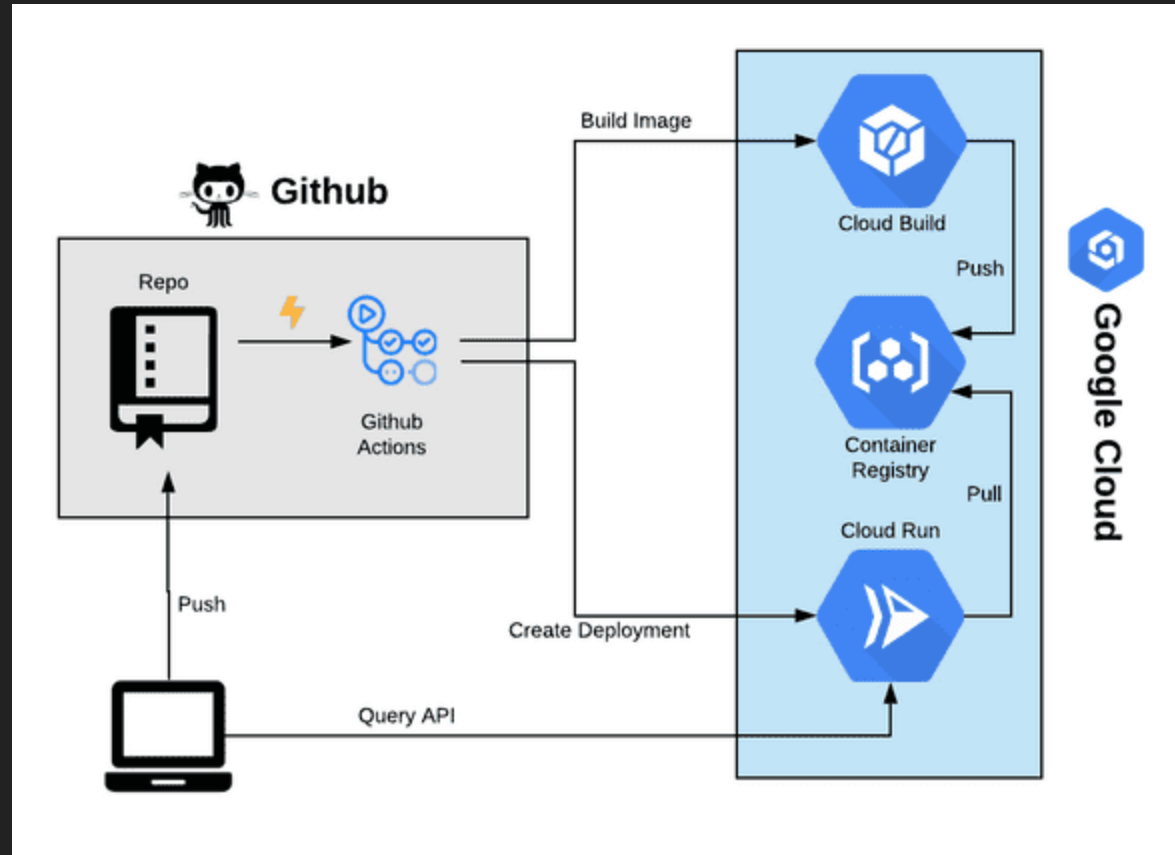


Introducción a los despliegues automáticos con GitHub Actions

- Vamos a automatizar el despliegue del API.
- Para ello usaremos GitHub Actions, Google Cloud Build y Cloud Run.
- GitHub Actions provisiona una máquina en la que podemos ejecutar una serie de acciones cuando ocurre algún evento en nuestro repositorio.
- En nuestro claso desplegaremos una nueva versión cuando hagamos un push a main.



- Definimos el proceso de despliegue en una fichero YAML:

```
name: Build and Deploy to Cloud Run

on:
  push:
    branches:
      - main

env:
  PROJECT_ID: ${ secrets.RUN_PROJECT }
  RUN_REGION: europe-west1
  SERVICE_NAME: api-cloud-run

jobs:
  setup-build-deploy:
    name: Setup, Build, and Deploy to Cloud Run
    runs-on: ubuntu-latest

    steps:
      - name: Checkout
        uses: actions/checkout@v2

      # Setup gcloud CLI
      - uses: GoogleCloudPlatform/github-actions/setup-gcloud@master
        with:
          version: '290.0.1'
          service_account_key: ${ secrets.RUN_SA_KEY }
          project_id: ${ secrets.RUN_PROJECT }

      # Build and push image to Google Container Registry
      - name: Build
        run: |-
          gcloud builds submit \
            --quiet \
            --tag "gcr.io/$PROJECT_ID/$SERVICE_NAME:$GITHUB_SHA"

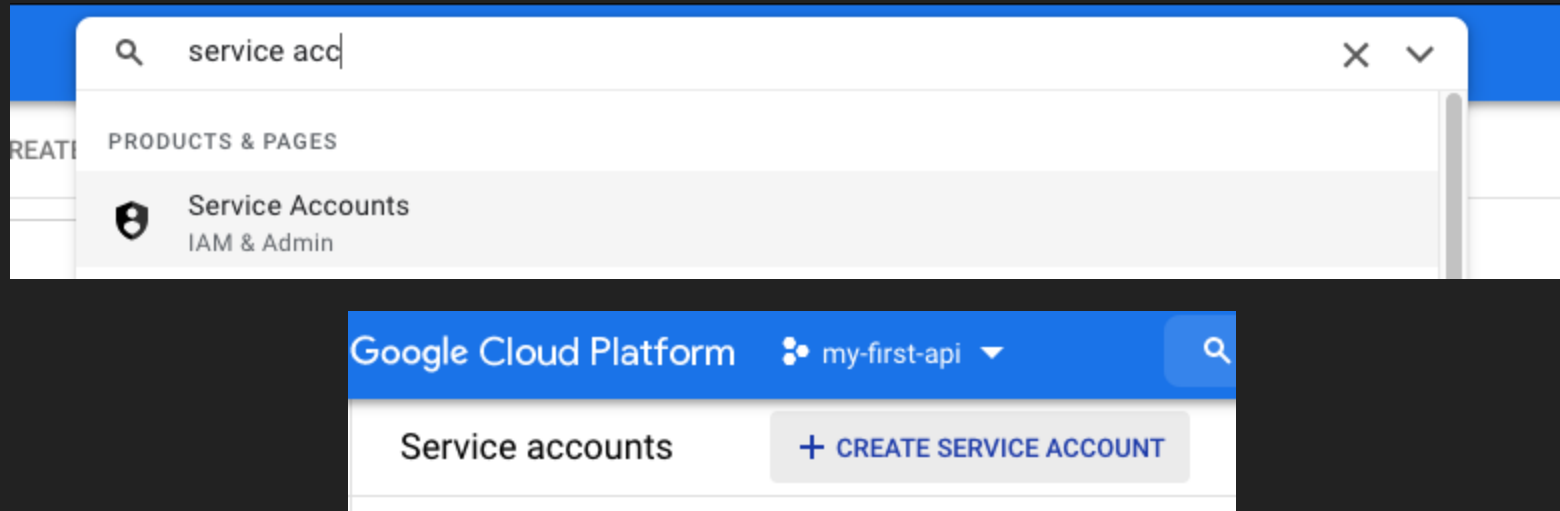
      # Deploy image to Cloud Run
      - name: Deploy
        run: |-
          gcloud run deploy "$SERVICE_NAME" \
            --quiet \
            --region "$RUN_REGION" \
            --image "gcr.io/$PROJECT_ID/$SERVICE_NAME:$GITHUB_SHA" \
            --platform "managed" \
            --allow-unauthenticated
```

- Este fichero tiene que estar en la carpeta .github/workflows.

- El proceso necesita dos variables de entorno:
 - RUN_PROJECT: Nombre del proyecto donde vamos a desplegar nuestra aplicación.
 - RUN_SA_KEY: Key de un service account con los siguientes permisos:
 - Service Account User
 - Cloud Build Editor
 - Cloud Run Admin
 - Viewer

Ejemplo

- Primero generamos el service account con los permisos necesarios.



1 Service account details

Service account name

github

Display name for this service account

Service account ID

github-932

@my-first-api-310708.iam.gserviceaccount.com



Service account description

Describe what this service account will do

CREATE

- Podemos poner el permiso de owner aunque no es lo correcto.

2

Grant this service account access to project (optional)

Grant this service account access to my-first-api so that it has permission to complete specific actions on the resources in your project. [Learn more](#)

Role	Condition
<div>Owner</div> <div>Full access to all resources.</div>	<div>Add condition</div> <div></div>

+ ADD ANOTHER ROLE

CONTINUE

3 Grant users access to this service account (optional)

Grant access to users or groups that need to perform actions as this service account. [Learn more](#)

Service account users role



Grant users the permissions to deploy jobs and VMs with this service account

Service account admins role

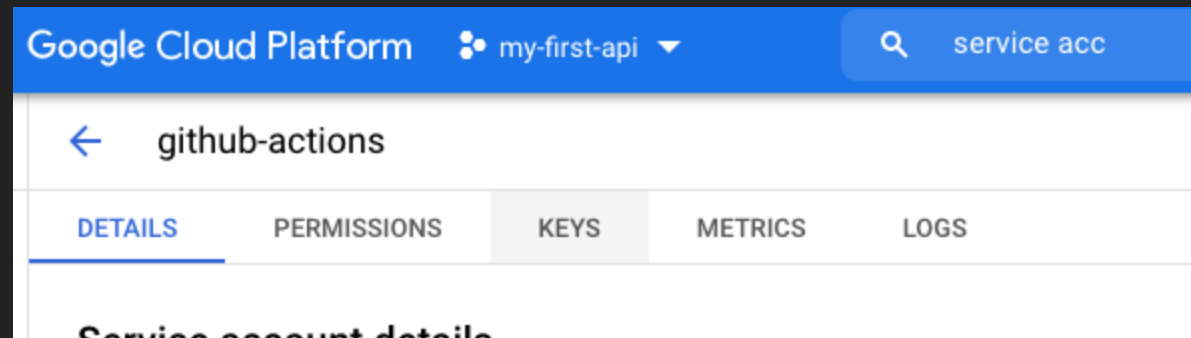


Grant users the permission to administer this service account

DONE

CANCEL

- Generamos el json con la key del service account.



Keys

Add a new key pair or upload a public key certificate from an existing key pair. Please note that public certificates need to be in RSA_X509_PEM format. [Learn more about upload key formats](#)

Block service account key creation using [organization policies](#).
[Learn more about setting organization policies for service accounts](#)

ADD KEY ▾

Type	Status	Key	Key creation date	Key expiration date
No rows to display				

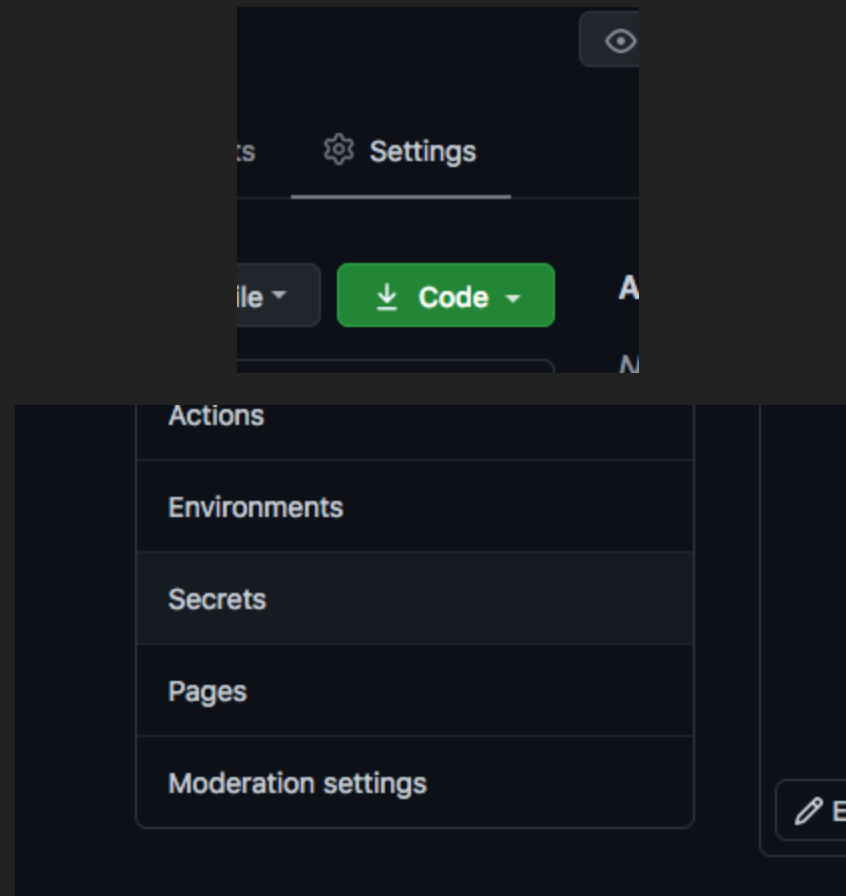
ADD KEY ▾

Create new key

Upload existing key

Key

- Añadimos las variables a GitHub.



New repository secret

can use these secrets for

Actions secrets

New repository secret

Secrets are environment variables that are **encrypted**. Anyone with **collaborator** access to this repository can use these secrets for Actions.

Secrets are not passed to workflows that are triggered by a pull request from a fork. [Learn more](#).

Actions secrets / New secret

Name

RUN_SA_KEY

Value

```
{
  "type": "service_account",
  "project_id": "my-first-api-310708",
  "private_key_id": "5fe79d4b7a61680354f5027cb45663c65f0b79c9",
  "private_key": "-----BEGIN PRIVATE KEY-----\nMIIEvQIBADANBgkqhkiG9w0BAQEFAASCBAwggSjAgEAAoIBAQC1eqkbssrDcbM2\n\nVv3nAr9D/iRZD6ncgA7vzh6OlxSQzLH/RGCXmgPIRYRvVV6pTQ5XDkAoTxfle6Qc\n\nndVrilc0Cdg1NbTbOIBmDlfPC6CJ9ubMdmHA6EbnAiJCLcN1omnmppBMAR7g46Uxz\n\nnoXbURm4YAD4vLXcaaT3dx+gi7S3QBdTs3WWOQaDgfRRq9LWCiSYva3ou9ghH5P3A\n\nn3PzK3dxk7N5dhycmQxt5cF\n\nYd1zcPazr3fSCr1P8NdhYD3kFIdS3YQrvA/Qv95N
```

Add secret


Repository secrets

 RUN_PROJECT

Updated 21 hours ago

Update

Remove

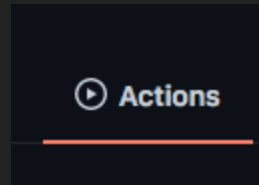
 RUN_SA_KEY

Updated 20 hours ago

Update

Remove

- Añadimos el fichero al repositorio.
- Si todo está correcto al hacer el push la aplicación se desplegará automáticamente.
- Podemos verlo en el menú de github actions.



pipeline Build and Deploy to Cloud Run #1

Re-run jobs



Summary

Jobs

Setup, Build, and Deploy to Cloud Run

Setup, Build, and Deploy to Cloud Run

succeeded now in 1m 20s

Search logs



>	✓ Set up job	4s
>	✓ Checkout	1s
>	✓ Run GoogleCloudPlatform/github-actions/setup-gcloud@master	7s
>	✓ Build	50s
>	✓ Deploy	17s
>	✓ Post Checkout	1s
>	✓ Complete job	0s

- Si entramos en el registry veremos que hay una nueva imagen.

Google Cloud Platform my-first-api Search products and resources

Images REFRESH DELETE

api-cloud-run

gcr.io / my-first-api-310708 / api-cloud-run

Filter by name or tag Columns

<input type="checkbox"/>	Name	Tags	Created	Uploaded	
<input type="checkbox"/>	4085e8040407	56de7a583cb506676403753e71b720b1364b7a0d	2 minutes ago	2 minutes ago	⋮
<input type="checkbox"/>	003baadc5a88	—	8 minutes ago	8 minutes ago	⋮
<input type="checkbox"/>	ed317d5751b0	—	19 hours ago	19 hours ago	⋮

- Tendremos una nueva revisión en nuestro servicio de cloud run.

Cloud Run

Service details

EDIT & DEPLOY NEW REVISION

SET UP C

✓

api-cloud-run

Region: europe-west1

URL: <https://api-cloud-run-jhgxi345nq-ew.a.run.app>

i

METRICS

REVISIONS

LOGS

TRIGGERS

DETAILS

YAML

PERMISSIONS

Revisions

MANAGE TRAFFIC

Filter

Filter revisions

?

III

	Name	Traffic	Deployed	Revision URLs (tags)	?	Actions
<input checked="" type="radio"/>	✓ api-cloud-run-00003-bes	100% (to latest)	4 minutes ago	+		⋮
<input type="radio"/>	✓ api-cloud-run-00002-yem	0%	10 minutes ago			⋮
<input type="radio"/>	✓ api-cloud-run-00001-go	0%	19 hours ago			⋮

Ejercicio

- Configura el despliegue automático para tu dash.