



Máster en Ingeniería MultiCloud, DevOps y Seguridad.

AZURE LAB #9c

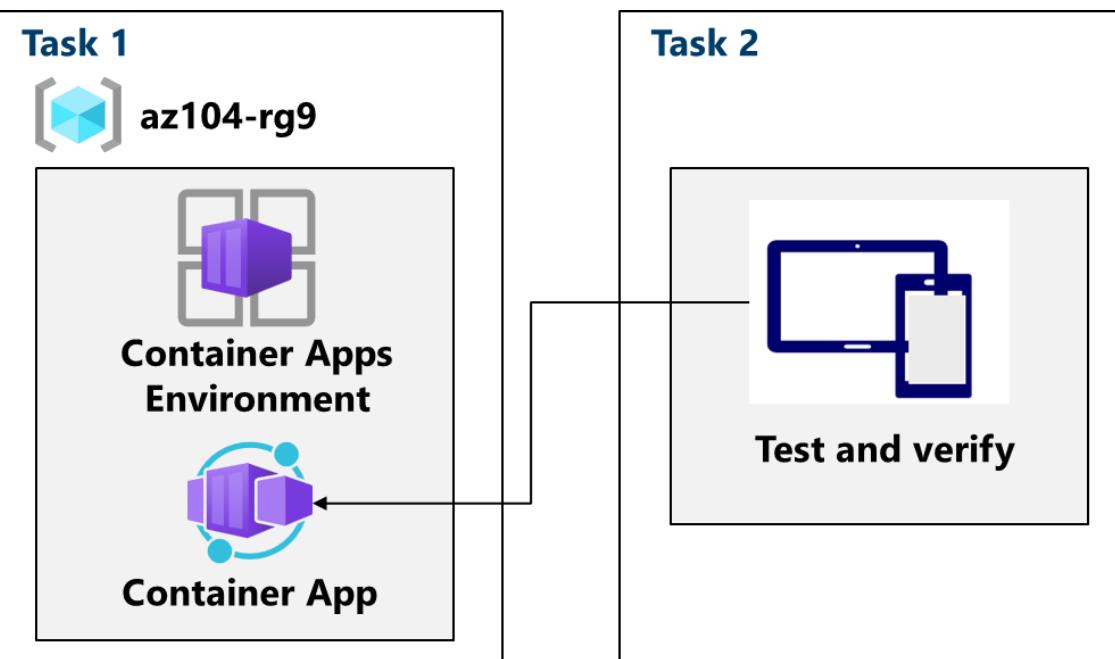
Implementación de Azure Container Apps

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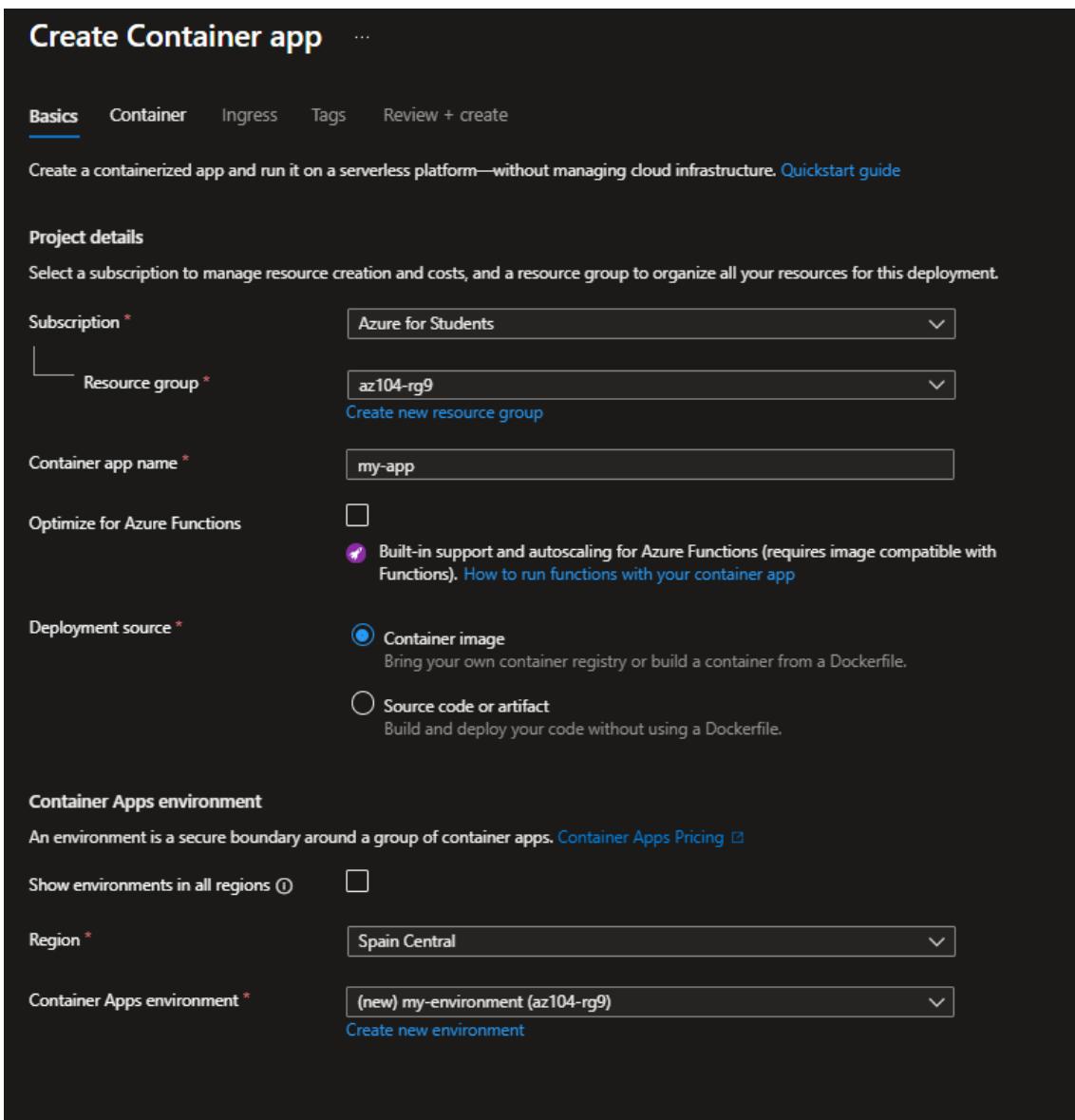
Esquema del laboratorio



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Creación y configuración de Azure Container Apps y su entorno

Azure Container Apps (ACA) es una plataforma sin servidor totalmente administrada de Microsoft Azure, diseñada para ejecutar aplicaciones en contenedores y microservicios sin que tengas que preocuparte por la orquestación o la infraestructura subyacente.



The screenshot shows the 'Create Container app' wizard in the Azure portal. The 'Basics' tab is selected. The form fields are as follows:

- Subscription ***: Azure for Students
- Resource group ***: az104-rg9 (with a link to 'Create new resource group')
- Container app name ***: my-app
- Optimize for Azure Functions**: An unchecked checkbox with a note about built-in support for Azure Functions.
- Deployment source ***: A selected radio button for 'Container image' with a note about bringing your own container registry or building from a Dockerfile. An alternative 'Source code or artifact' option is also shown.
- Container Apps environment**: A section where it's noted that an environment is a secure boundary around a group of container apps. It includes a checked checkbox for 'Show environments in all regions', a 'Region' dropdown set to Spain Central, and a 'Container Apps environment' dropdown showing '(new) my-environment (az104-rg9)' with a 'Create new environment' link.

Creo el contenedor de la aplicación y el entorno personalizado donde se va a trabajar con él.

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Create Container app

Basics Container Tags Review + create

Select a quickstart image for your container, or deselect quickstart image to use an existing container.

Use quickstart image

Container details
You can change these settings after creating the Container app.

Quickstart image * Simple hello world container

Container resource allocation

Workload profile type	Consumption
Number of CPU cores	0.25
Memory size (Gi)	0.5

Application ingress settings
Enable ingress for applications that need an HTTP or TCP endpoint.

Ingress ⓘ	Enabled
Ingress traffic	Accepting traffic from anywhere
Target port ⓘ	80

La sección Quickstart image (Imagen de inicio rápido) indica que he optado por utilizar una imagen de contenedor predefinida, seleccionando el "Simple hello world container". Esta es una opción común para pruebas rápidas o para familiarizarse con el servicio, ya que proporciona un contenedor que funciona de inmediato sin necesidad de especificar una imagen de registro propia.

Microsoft.App-ContainerApp-Portal-a723162b-a79b | Overview

Deployment

Search X Delete Cancel Redeploy Download Refresh

Overview

Your deployment is complete

Deployment name : Microsoft.App-ContainerApp-Portal-a723162b-a79b
Subscription : Azure for Students
Resource group : az104-rg9

Start time : 12/12/2025, 9:25:02
Correlation ID : 347651da-ca1a-401d-9abe-a767fead7f30

Deployment details

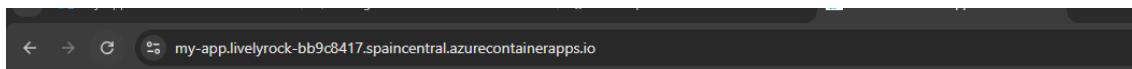
Resource	Type	Status	Operation details
my-app	MicrosoftApp/containerapps	OK	Operation details
my-environment	Container Apps Environment	OK	Operation details
workspaceaz104rg989d8	Log Analytics workspace	OK	Operation details
workspaceaz104rg989d8	Log Analytics workspace	OK	Operation details
workspaceaz104rg989d8	Log Analytics workspace	OK	Operation details

Next steps

Recursos desplegados.

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Testear y verificar el despliegue de el container de la aplicación.



Your container app is running with a Hello World image

Azure Container Apps is a serverless container solution for apps and microservices that helps you:

- Simplify your container deployments
- Manage less infrastructure
- Scale automatically on demand

[Learn more.](#)

Next steps

Explore sample templates you can leverage for your container apps.

[Sample apps](#)

Follow our Quickstart guide and deploy your own app.

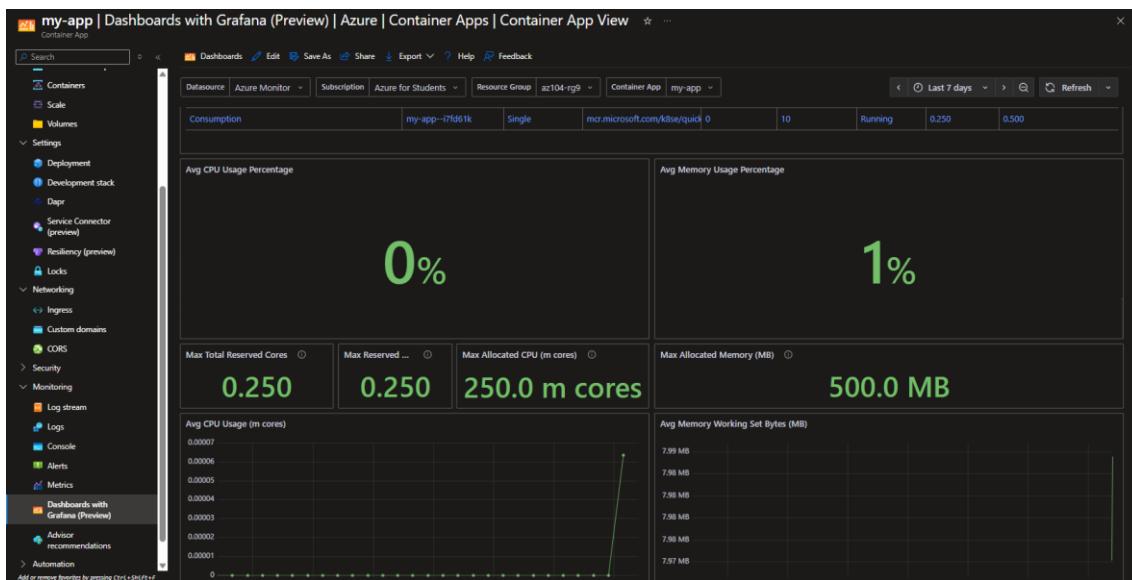
[Quickstart](#)

Accedo para comprobar el despliegue del contenedor mediante el FQDN proporcionado por Azure.

Funciona.



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Al montar el contenedor podemos utilizar Grafana para monitorizar el rendimiento y los recursos del contenedor.



Container App desde Docker Hub

The screenshot shows the Azure Container App configuration page for the app 'apprueba'. The left sidebar has sections like Overview, Activity log, Access control (IAM), Tags, Diagnose and solve problems, Resource visualizer, Application (Revisions and replicas, Containers, Scale, Volumes), Settings (Deployment, Development stack, Dapr, Service Connector (preview), Resiliency (preview), Locks), Networking, Security, Monitoring, Automation, and Help. The main area is titled 'Properties' and contains tabs for Environment variables, Health probes, and Volume mounts. Under 'Container details', the 'Name' field is set to 'apprueba'. The 'Image source' dropdown is set to 'Docker Hub or other registries' (which is highlighted with a red box). The 'Image type' dropdown is set to 'Public'. Below these, the 'Registry login server' field is set to 'docker.io' and the 'Image and tag' field is set to 'nginx:latest' (also highlighted with a red box). There are also fields for Command override (with 'Example: /bin/bash') and Arguments override (with 'Example: -c, while true; do echo hello; sleep 10; done'). At the bottom, there's a 'Container resource allocation' section with a dropdown set to '0.5 CPU cores, 1 Gi memory'.

Si queremos desplegar una imagen de Docker por ejemplo, tenemos que seleccionar la fuente de donde viene la imagen, en este caso Docker Hub y debemos escribir el nombre de la imagen que queremos desplegar.

Yo he código nginx, el formato del nombre de la imagen tiene que ser nombre:versión



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When you enable Ingress, all traffic will be directed to your latest revision by default. To change traffic settings, go to the [revision management page](#)

Enable ingress for applications that need an HTTP or TCP endpoint.

Ingress

Ingress traffic Limited to Container Apps Environment
Select this option if you want to restrict traffic to this container app from within the Container App Environment

Accepting traffic from anywhere
Select this option if you want to allow traffic to this container app from anywhere

Ingress type HTTP
 TCP

Client certificate mode Ignore
 Accept
 Require

Transport

Insecure connections

Target port

Endpoint(s) <https://appprueba.livelyrock-bb9c8417.spaincentral.azurecontainerapps.io>

Session affinity

[Additional TCP ports](#)

Luego permito el tráfico de todas partes (solo para hacer la prueba) y el puerto al que nos queremos conectar 80 http.

appprueba.livelyrock-bb9c8417.spaincentral.azurecontainerapps.io

Welcome to nginx!

If you see this page, the nginx web server is successfully installed and working. Further configuration is required.

For online documentation and support please refer to [nginx.org](#). Commercial support is available at [nginx.com](#).

Thank you for using nginx.

Una vez desplegado accedemos mediante el FQDN proporcionado por Azure.