

Tarea Final

Realizado por Mauricio Loachamín

Crea el código para crear un script en Python que despliega un saludo

```
dockerfile
Docker_ESPE > Docker1 > dockerfile
1 # Usar la imagen base de Python
2 FROM python:3.9-slim
3
4 # Establecer el directorio de trabajo
5 WORKDIR /app
6
7 # Crea un script
8 RUN echo 'print("Hola Mundo - Taller Docker de Mauricio Loachamin")' > hola_mundo.py
9
10
11 # Comando para ejecutar la aplicación
12 CMD ["python", "hola_mundo.py"]
```

Construir la imagen del Dockerfile

```
PROBLEMS  OUTPUT  TERMINAL  PORTS  DEBUG CONSOLE
● PS D:\Docker\Docker_ESPE\Docker1> docker build -t mauricio-aplication .
[+] Building 1.0s (8/8) FINISHED
=> [internal] load build definition from dockerfile
=> => transferring dockerfile: 323B
=> [internal] load metadata for docker.io/library/python:3.9-slim
=> [auth] library/python:pull token for registry-1.docker.io
=> [internal] load .dockerignore
=> => transferring context: 2B
=> [1/3] FROM docker.io/library/python:3.9-slim@sha256:7a9cd42706c174cdcf57880ab9ae3b6551323a7ddbc2a89ad6e5b20a28fbfbc
=> CACHED [2/3] WORKDIR /app
=> CACHED [3/3] RUN echo 'print("Hola Mundo - Taller Docker de Mauricio L.")' > hola_mundo.py
=> exporting to image
=> => exporting layers
=> => writing image sha256:39d73d587215050953c185e64f4d17a297e226de1f1522b088536199c8ce3ab3
=> => naming to docker.io/library/mauricio-aplication

View build details: docker-desktop://dashboard/build/desktop-linux/desktop-linux/s6w7415ffa4y6t2a132ca6sdy

What's next:
  View a summary of image vulnerabilities and recommendations → docker scout quickview
○ PS D:\Docker\Docker_ESPE\Docker1>

What's next:
  View a summary of image vulnerabilities and recommendations → docker scout quickview
● PS D:\Docker\Docker_ESPE\Docker1> docker run -p 3001:3001 mauricio-aplication
Hola Mundo - Taller Docker de Mauricio L.
○ PS D:\Docker\Docker_ESPE\Docker1>
```






















Crear una nueva versión de imagen

```
PROBLEMS OUTPUT TERMINAL PORTS DEBUG CONSOLE
PS D:\Docker\Docker_ESPE\Docker1> docker build -t mauricio-aplicacion:1 .
[+] Building 1.0s (8/8) FINISHED
=> [internal] load build definition from dockerfile
=> => transferring dockerfile: 329B
=> [internal] load metadata for docker.io/library/python:3.9-slim
=> [auth] library/python:pull token for registry-1.docker.io
=> [internal] load .dockerignore
=> => transferring context: 2B
=> [1/3] FROM docker.io/library/python:3.9-slim@sha256:7a9cd42706c174cdf57880ab9ae3b6551323a7ddbc2a89ad6e5b20a28f8f8e
=> CACHED [2/3] WORKDIR /app
=> CACHED [3/3] RUN echo 'print("Hola Mundo - Taller Docker de Mauricio L.")' > hola_mundo.py
=> exporting to image
=> => exporting layers
=> => writing image sha256:39d73d587215050953c185e64f4d17a297e226de1f1522b088536199c8ce3ab3
=> => naming to docker.io/library/mauricio-aplicacion:1


View build details: docker-desktop://dashboard/build/desktop-linux/desktop-linux/u7ki6ebku3hcx9osdmt00h4yv

What's next:
View a summary of image vulnerabilities and recommendations → docker scout quickview
PS D:\Docker\Docker_ESPE\Docker1> docker run -p 3000:3000 mauricio-aplicacion:1
Hola Mundo - Taller Docker de Mauricio L.
PS D:\Docker\Docker_ESPE\Docker1>
```

Visualizamos las imágenes en el Docker Desktop

	Name	Tag	Status	Created	Size	Actions
	hola-mundo 39d73d587215 	1	In use	4 days ago	125.5 MB	  
	hola-mundo 39d73d587215 	latest	In use	4 days ago	125.5 MB	  
	mauricio-aplicacion 39d73d587215 	1	In use	4 days ago	125.5 MB	  
	mauricio-aplicacion 39d73d587215 	latest	In use	4 days ago	125.5 MB	  

Ahora vamos a crear un microservicio en un repositorio público en Docker hub



dockerhub


Explore


Repositories


Organizations


Usage


ctrl+k











Repositories / Create

Using 0 of 1 private repositories.

Create repository

Namespace

mrloachamin

Repository Name *


microservicio_mauricio

Short description


Microservicio publico de Mauricio Loachamin

Visibility

Using 0 of 1 private repositories. [Get more](#)

☒ Public 

Appears in Docker Hub search results

☐ Private 

Only visible to you

Cancel


Create

Pushing images

You can push a new image to this repository using the CLI:

```
docker tag local-image:tagname new-repo:tagname
docker push new-repo:tagname
```

Make sure to replace tagname with your desired image repository tag.



dockerhub


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ctrl+k



















mrloachamin

All Content

Create repository

<div>mrloachamin / microservicio_mauricio</div> <div>Contains: No content • Created: 1 minute ago</div> <div> 0  0  Public  Scout inactive</div>
<div>mrloachamin / mauricio-app</div> <div>Contains: Image • Last pushed: 10 days ago</div> <div> 0  7  Public  Scout inactive</div>

PROBLEMS OUTPUT TERMINAL PORTS DEBUG CONSOLE

PS D:\Docker\Docker_ESPE\Docker1> docker tag mauricio-aplicacion mrloachamin/microservicio_mauricio

PS D:\Docker\Docker_ESPE\Docker1> docker push mrloachamin/microservicio_mauricio

Using default tag: latest

The push refers to repository [docker.io/mrloachamin/microservicio_mauricio]

77c62a952701: Pushed

e8911e5c7d36: Pushed

d86feaf80e98: Pushed

19f5accf4683: Pushing [=====>] 43.06MB

0300a07ea341: Pushed

98b5f35ea9d3: Pushing [=====>] 46.2MB/74.78MB

mrloachamin / [Repositories](#) / [microservicio_mauricio](#) / [General](#) Using 0 of 1 private repositories.

[General](#) [Tags](#) [Builds](#) [Collaborators](#) [Webhooks](#) [Settings](#)

mrloachamin/microservicio_mauricio

Last pushed 1 minute ago

Microservicio publico de Mauricio Loachamin

This repository does not have a category INCOMPLETE

Docker commands

To push a new tag to this repository:

`docker push mrloachamin/microservicio_mauricio:tagname`

[Public View](#)

Tags

This repository contains 1 tag(s).

Tag	OS	Type	Pulled	Pushed
latest		Image	2 minutes ago	2 minutes ago

[See all](#)

Automated Builds

Manually pushing images to Hub? Connect your account to GitHub or Bitbucket to automatically build and tag new images whenever your code is updated, so you can focus your time on creating.

Available with Pro, Team and Business subscriptions. [Read more about automated builds](#) .

[Upgrade](#)

Repository overview INCOMPLETE

mrloachamin

Search by repository name

All Content

[Create repository](#)

mrloachamin / microservicio_mauricio

Contains: Image • Last pushed: 4 minutes ago

0 0 Public Scout inactive

mrloachamin / mauricio-app

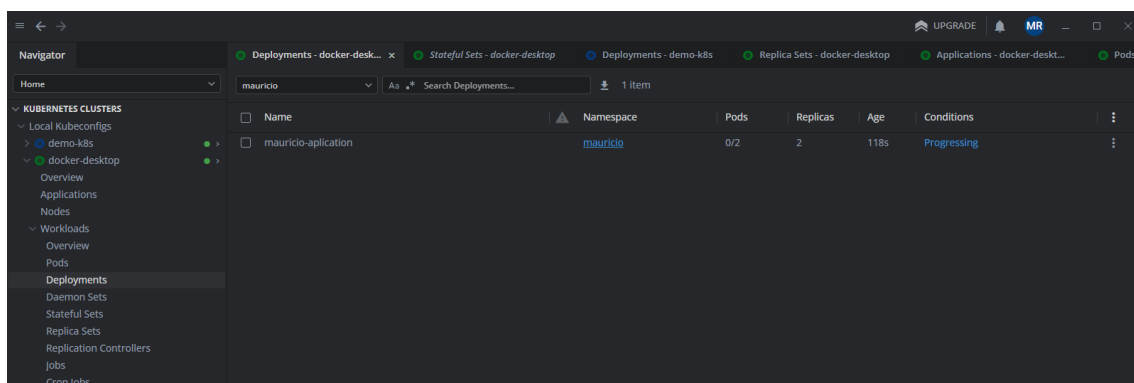
Contains: Image • Last pushed: 10 days ago

0 7 Public Scout inactive

Activar servicios en Kubernetes

```
! deploy1.yaml x ! deployment3.yaml
Docker_ESPE > Docker2 > ! deploy1.yaml
1  apiVersion: v1
2  kind: Namespace
3  ~ metadata:
4    name: mauricio
5  ---
6  apiVersion: apps/v1
7  kind: Deployment
8  ~ metadata:
9    name: mauricio-aplicacion
10   namespace: mauricio
11 ~ spec:
12   replicas: 2
13   selector:
14     matchLabels:
15       app: mauricio-aplicacion
16   template:
17     metadata:
18       labels:
19         app: mauricio-aplicacion
20     spec:
21       containers:
22         - name: mauricio-aplicacion
23           image: mrloachamin/microservicio_mauricio # Cambia por tu imagen
24           ports:
25             - containerPort: 5000
```

```
PROBLEMS OUTPUT TERMINAL PORTS DEBUG CONSOLE
Directorio: D:\Docker\Docker_ESPE\Docker2
PS D:\Docker\Docker_ESPE\Docker2> kubectl apply -f deploy1.yaml
deployment.apps/mauricio created
PS D:\Docker\Docker_ESPE\Docker2> kubectl get deployments
NAME READY UP-TO-DATE AVAILABLE AGE
ejemplo-web 3/3 3 3 10d
mauricio 0/3 3 0 20s
mauricio-app 0/2 1 0 10d
PS D:\Docker\Docker_ESPE\Docker2> kubectl get namespaces
NAME STATUS AGE
default Active 11d
kube-node-lease Active 11d
kube-public Active 11d
kube-system Active 11d
mauricio Active 10d
PS D:\Docker\Docker_ESPE\Docker2>
```



Deployment: mauricio-aplicacion

Replicas: 2 desired, 2 updated, 2 total, 0 available, 2 unavailable

Selector: app=mauricio-aplicacion

Strategy Type: RollingUpdate

Conditions: Available, Progressing

Tolerations: 0

Deploy Revisions

#	Summary	Pods	Age
1		0/2	2m27s

Pods

Name	Node	Namespace	Ready	CPU	Memory	Status
mauricio-aplicacion-5	docker-desktop	mauricio	0/1	0	0	Running
mauricio-aplicacion-5	docker-desktop	mauricio	0/1	0	0	Running

Vulnerabilities

Events

Summary	Count	Age
Scaled up replica set mauricio-aplicacion-5676d6f6 to 2	1	2m27s

Pod: mauricio-aplicacion-5676d6f6-kjct4

Created: 5m 59s ago 2024-11-02T20:43:37-05:00

Name: mauricio-aplicacion-5676d6f6-kjct4

Namespace: mauricio

Labels: 2 Labels

Controlled By: ReplicaSet mauricio-aplicacion-5676d6f6

Status: Running

Node: docker-desktop

Pod IP: 10.1.0.124

Pod IPs: 10.1.0.124

Service Account: default

QoS Class: BestEffort

Vaya... no se puede acceder a esta página

localhost rechazó la conexión.

Prueba a:

- Buscar localhost en Bing.
- Comprobando la conexión
- Comprobar el proxy y el firewall

Actualizar

Summary

Count

Age

```
File Edit Selection View Go Run Terminal Help Docker
EXPLORER
OPEN EDITORS
! deploy1.yaml Docker_ESPE/Docker2
! deployment2.yaml Docker_ESPE/Docker2
DOCKERR
App_istio
Docker_ESPE
Docker1
dockerfile
Docker2
! deploy1.yaml
! deployment2.yaml
! deployment3.yaml
! deployment4.yaml
app.py
dockerfile
README
istio-1.23.2
Docker_ESPE > Docker2 > ! deployment2.yaml
1 apiVersion: apps/v1
2 kind: Deployment
3 metadata:
4   name: ejemplo-web
5 spec:
6   replicas: 3
7   selector:
8     matchLabels:
9       app: web
10  template:
11    metadata:
12      labels:
13        app: web
14    spec:
15      containers:
16      - name: nginx
17        image: nginx:1.14.2
18        ports:
19          - containerPort: 80
```

UPGRADE MR

Deployments - docker-desk... x Daemon Sets - docker-desktop Deployments - demo-k8s Replica Sets - docker-desktop Applications - docker-desk... Pods

default Aa Search Deployments... Deployment: ejemplo-web

☐ Name ☐ Namespace

☒ ejemplo-web default

☐ mauricio default

☐ mauricio-app default

Metrics

1h

Displaying metrics from Kubernetes Metrics Server

	1.000
	0.800
	0.600
	0.400
	0.200
	0

19:52 19:58 20:04 20:10 20:16 20:22 20:28 20:34 20:40 20:46

Properties

Created 10d 12h 36m ago 2024-10-23T08:15:46-05:00

Name ejemplo-web

Namespace default

Annotations 2 Annotations

Replicas 3 desired, 3 updated, 3 total, 3 available, 0 unavailable

Selector app=web

Strategy Type RollingUpdate

Conditions Progressing Available

UPGRADE MR

Deployments - docker-desk... x Daemon Sets - docker-desktop Deployments - demo-k8s Replica Sets - docker-desktop Applications - docker-desk... Pods

default Aa Search Deployments... Deployment: ejemplo-web

☐ Name ☐ Namespace

☒ ejemplo-web default

☐ mauricio default

☐ mauricio-app default

Annotations 2 Annotations

Replicas 3 desired, 3 updated, 3 total, 3 available, 0 unavailable

Selector app=web

Strategy Type RollingUpdate

Conditions Progressing Available

Tolerations 0

Deploy Revisions

#	Summary	Pods	Age
1		3/3	10d

Pods

Name	Node	Namespace	Ready	CPU	Memory	Status
ejemplo-web-6bdfcbl	docker-desktop	default	1 / 1	0	0	Running
ejemplo-web-6bdfcbl	docker-desktop	default	1 / 1	0	0	Running
ejemplo-web-6bdfcbl	docker-desktop	default	1 / 1	0	0	Running

Vulnerabilities

Events

No events found

Pod: ejemplo-web-6bdfcbb7dc-9dsdw

0.600

0.400

0.200

0

19:54

20:00

20:06

20:12

20:18

20:24

20:30

20:36

20:42

20:48

Status

running, ready

Last Status

terminated

Reason:Reason: Error - exit code: 255

Started at: 2024-10-29T16:14:49-05:00

Finished at: 2024-11-02T18:50:27-05:00

Image

nginx:1.14.2

Ports

80/TCP

Stop/Remove

Environment

—

Mounts

/var/run/secrets/kubernetes.io/serviceaccount

from kube-api-access-r6j2m (ro)

Requests

CPU: —, Memory: —

Limits

CPU: —, Memory: —

Vulnerabilities

Events

No events found

