```
+] Building 1.5s (10/10) FINISHED                                                                              docke
root@ip-172-31-6-5:~/docker-training/Python-app# docker images
REPOSITORY      TAG       IMAGE ID       CREATED        SIZE
python_image    latest    39ba7df02218   8 seconds ago  136MB
nginx           latest    53a18edff809   7 weeks ago    192MB
root@ip-172-31-6-5:~/docker-training/Python-app# cat Dockerfile
 Use the official Python image from the Docker Hub as the base image
ROM python:3.9.19-slim

 Set the working directory in the container
ORKDIR /app

 Copy the requirements.txt file into the container
OPY requirements.txt .

 Install the dependencies specified in requirements.txt
UN pip install --no-cache-dir -r requirements.txt

 Copy the rest of the application code into the container
OPY . .

 Expose the port the application will run on
XPOSE 4000

 Specify the command to run the application
MD ["python", "app.py"]
root@ip-172-31-6-5:~/docker-training/Python-app# docker run -d --name custome_python_image -p 4000:5000 python_image
2ee6fafa4e7b807d55e0cd31f8f554df065113eed2dd1717b5c9309bea878b2
root@ip-172-31-6-5:~/docker-training/Python-app# docker ps -a
CONTAINER ID   IMAGE          COMMAND                 CREATED         STATUS         PORTS                                             NAMES
2ee6fafa4e7    python_image   "python app.py"         9 seconds ago   Up 8 seconds   4000/tcp, 0.0.0.0:4000->5000/tcp, [::]:4000->5000/tcp   custome_python_image
f2ed81d4a62    nginx          "/docker-entrypoint..."  11 minutes ago  Up 11 minutes  0.0.0.0:8080->80/tcp, [::]:8080->80/tcp             nginx_con
root@ip-172-31-6-5:~/docker-training/Python-app#
```

Build a custom Docker image, containerize it, and map port 4000 on the host machine to the container's port 5000 using Docker.

← → C ⚠ Not secure 13.126.214.21:4000

⊞ | M Gmail ▶ YouTube ● Maps ⑤ Chat gpt G Google ○ GitHub - Pierian-Da...

welcome to docker

Access the application from a browser by navigating to http://localhost:4000

```
root@ip-172-31-6-5:~# docker --version
Docker version 28.0.4, build b8034c0
root@ip-172-31-6-5:~# docker login -u <username>
-bash: syntax error near unexpected token `newline'
root@ip-172-31-6-5:~# docker login -u sirisha1202

 Info → A Personal Access Token (PAT) can be used instead.
         To create a PAT, visit https://app.docker.com/settings


Password:

WARNING! Your credentials are stored unencrypted in '/root/.docker/config.json'.
Configure a credential helper to remove this warning. See
https://docs.docker.com/go/credential-store/

Login Succeeded
root@ip-172-31-6-5:~# docker login
Authenticating with existing credentials... [Username: sirisha1202]

 Info → To login with a different account, run 'docker logout' followed by 'docker login'


Login Succeeded
root@ip-172-31-6-5:~# docker images
REPOSITORY      TAG        IMAGE ID       CREATED        SIZE
python_image    latest     39ba7df02218   51 minutes ago   136MB
nginx           latest     53a18edff809   7 weeks ago      192MB
root@ip-172-31-6-5:~# docker tag python_image  sirisha1202/pythonimage1
root@ip-172-31-6-5:~# docker images
REPOSITORY               TAG        IMAGE ID       CREATED        SIZE
python_image             latest     39ba7df02218   52 minutes ago   136MB
sirisha1202/pythonimage1 latest     39ba7df02218   52 minutes ago   136MB
nginx                    latest     53a18edff809   7 weeks ago      192MB
root@ip-172-31-6-5:~# docker push sirisha1202/pythonimage1
Using default tag: latest
The push refers to repository [docker.io/sirisha1202/pythonimage1]
ceed86cd771e: Pushed
f0e5bf4e71a2: Pushed
045d0570f0cb: Pushed
1cf5c2934b6: Pushed
bf89bd470be: Mounted from library/python
4919dada3a70: Mounted from library/python
8e710f3fb689: Mounted from library/python
b3d1805081f: Mounted from library/python
8e2ab394fabf: Mounted from library/python
latest: digest: sha256:5578312ae95c46605a0813e672b4704216a29af4e08b4814d0852abb8d370569 size: 2201
root@ip-172-31-6-5:~#
```

Create a Docker Hub account and connect to Docker CLI using the command 'docker login' and enter your Docker Hub username and password.

Push the custom Docker image to Docker Hub using the command 'docker push <your-username>/<image-name>:<tag>

Repositories / pythonimage1 / General

Using 0 of 1 private repositories. Get more

sirisha1202/pythonimage1
Last pushed less than a minute ago

Add a description
Add a category

Docker commands
To push a new tag to this repository:

Public view

```
docker push sirisha1202/pythonimage1:tagname
```

General   Tags   Image Management BETA   Collaborators   Webhooks   Settings

Tags

This repository contains 1 tag(s).

Tag	OS	Type	Pulled	Pushed
● latest	🐧	Image	less than 1 day	less than a minute

See all

buildcloud

Build with
Docker Build Cloud

Accelerate image build times with access to cloud-based builders and shared cache.

Docker Build Cloud executes builds on optimally-dimensioned