

Lab 2

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Publishing and exposing ports

Publishing Ports

The screenshot shows the Docker Desktop interface. At the top, there's a summary of resource usage: Container CPU usage (0.00% / 1200%) and Container memory usage (10.59MB / 7.26GB). Below this is a search bar and a filter for 'Only running' containers. A table lists the running container:

	Name	Container ID	Image	Port(s)	Actions
<input type="checkbox"/>	upbeat_lederbei	66e68d44ebc5	nginx	8080:80	⋮ trash

Below the table is a terminal window titled 'Terminal'. It shows a Windows PowerShell session with the following output:

```
Windows PowerShell
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Install the latest PowerShell for new features and improvements! https://aka.ms/PSWindows

PS C:\Users\qadee> docker run -d -p 8080:80 nginx
Unable to find image 'nginx:latest' locally
latest: Pulling from library/nginx
d3dc5ec71e9d: Pull complete
d38f2ef2d6f2: Pull complete
4f21ed9ac0c0: Pull complete
3e544d53ce49: Pull complete
254e724d7786: Pull complete
913115292750: Pull complete
40a6e9f4e456: Pull complete
Digest: sha256:c15da6c91de8d2f436196f3a768483ad32c258ed4e1beb3d367a27ed67253e66
Status: Downloaded newer image for nginx:latest
66e68d44ebc52e4905d05601939104019df91cb701465c347c96e013ba42b3e3
PS C:\Users\qadee>
```

The screenshot shows a web browser window with the URL 'localhost:8080'. The page displays the standard 'Welcome to nginx!' welcome message:

Welcome to nginx!

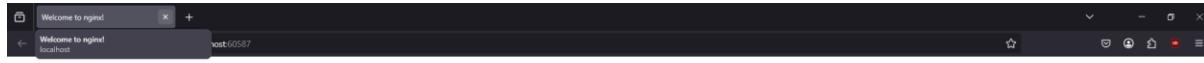
If you see this page, the nginx web server is successfully installed and working. Further configuration is required.

For online documentation and support please refer to nginx.org.
Commercial support is available at nginx.com.

Thank you for using nginx.

Publishing to ephemeral ports

The screenshot shows the Docker Desktop interface. On the left, a sidebar lists 'Containers', 'Images', 'Volumes', 'Builds', 'Docker Hub', 'Docker Scout', and 'Extensions'. The 'Containers' section is active, showing two running containers: 'upbeat_lederberg' (Container ID: 66e68d4e6c5) and 'pedantic_greider' (Container ID: 425601dd019a). Both are based on the 'nginx' image and are publishing port 80 to 60587. The 'Actions' column includes icons for stopping, restarting, and deleting each container. Below the container list is a 'Terminal' window showing the logs for the 'upbeat_lederberg' container. The logs indicate the container is starting up, with multiple 'notice' messages from nginx about worker processes starting. The terminal also shows the command used to run the container: 'C:\Users\jpaden> docker run -p 80:80 nginx'. The Docker Desktop status bar at the bottom shows 'RAM 1.22 GB CPU 0.0% Disk 1.42 GB used (limit 1056.85 GB)'.



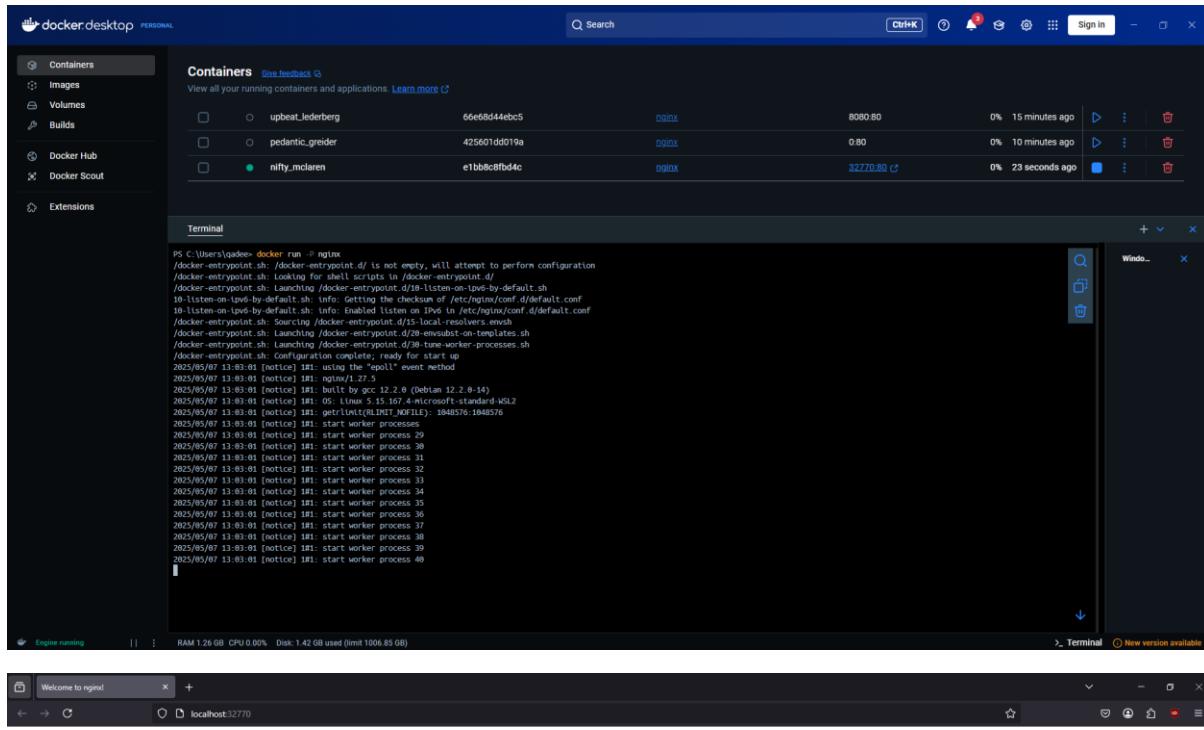
Welcome to nginx!

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.

Publishing all ports



Containers [Give feedback](#) [Learn more](#)

Container	ID	Type	Port	Status	Created	Actions
upbeat_lederberg	66e68d4ebc5	nginx	8080:80	0%	15 minutes ago	Details Logs Remove
pediatric_greider	425601dd019a	nginx	0:80	0%	10 minutes ago	Details Logs Remove
nifty_mclaren	e1bb8c8fb4c	nginx	32770:80	0%	23 seconds ago	Details Logs Remove

Terminal

```
PS C:\Users\gadee> docker run -p nginx
/docker-entrypoint.sh: /docker-entrypoint.d/ is not empty, will attempt to perform configuration
/docker-entrypoint.sh: Looking for script in /docker-entrypoint.d/...
/docker-entrypoint.sh: Launching /docker-entrypoint.d/ea-listen-on-ipv6-by-default.sh
10-listen-on-ipv6-by-default.sh: info: Getting the checksum of /etc/nginx/conf.d/default.conf
10-listen-on-ipv6-by-default.sh: info: Enabled listen on IPv6 in /etc/nginx/conf.d/default.conf
/docker-entrypoint.sh: Sourcing /docker-entrypoint.d/15-local-resolvers.envsh
/docker-entrypoint.sh: Launching /docker-entrypoint.d/15-substitution-on-templates.sh
/docker-entrypoint.sh: Substitution on templates completed
/docker-entrypoint.sh: Configuration complete; ready for start up
2025/05/07 13:03:01 [notice] 1#1: using the "epoll" event method
2025/05/07 13:03:01 [notice] 1#1: nginx/1.27.3
2025/05/07 13:03:01 [notice] 1#1: built by gcc 12.2.0 (Ubuntu 12.2.0-12)
2025/05/07 13:03:01 [notice] 1#1: running on Linux 5.15.167.4-microsoft-standard-HSL2
2025/05/07 13:03:01 [notice] 1#1: getrlimit(RLIMIT_NOFILE): 1048576/1048576
2025/05/07 13:03:01 [notice] 1#1: start worker processes
2025/05/07 13:03:01 [notice] 1#1: start worker process 29
2025/05/07 13:03:01 [notice] 1#1: start worker process 39
2025/05/07 13:03:01 [notice] 1#1: start worker process 31
2025/05/07 13:03:01 [notice] 1#1: start worker process 32
2025/05/07 13:03:01 [notice] 1#1: start worker process 33
2025/05/07 13:03:01 [notice] 1#1: start worker process 34
2025/05/07 13:03:01 [notice] 1#1: start worker process 35
2025/05/07 13:03:01 [notice] 1#1: start worker process 36
2025/05/07 13:03:01 [notice] 1#1: start worker process 37
2025/05/07 13:03:01 [notice] 1#1: start worker process 38
2025/05/07 13:03:01 [notice] 1#1: start worker process 39
2025/05/07 13:03:01 [notice] 1#1: start worker process 40
```

Welcome to nginx!

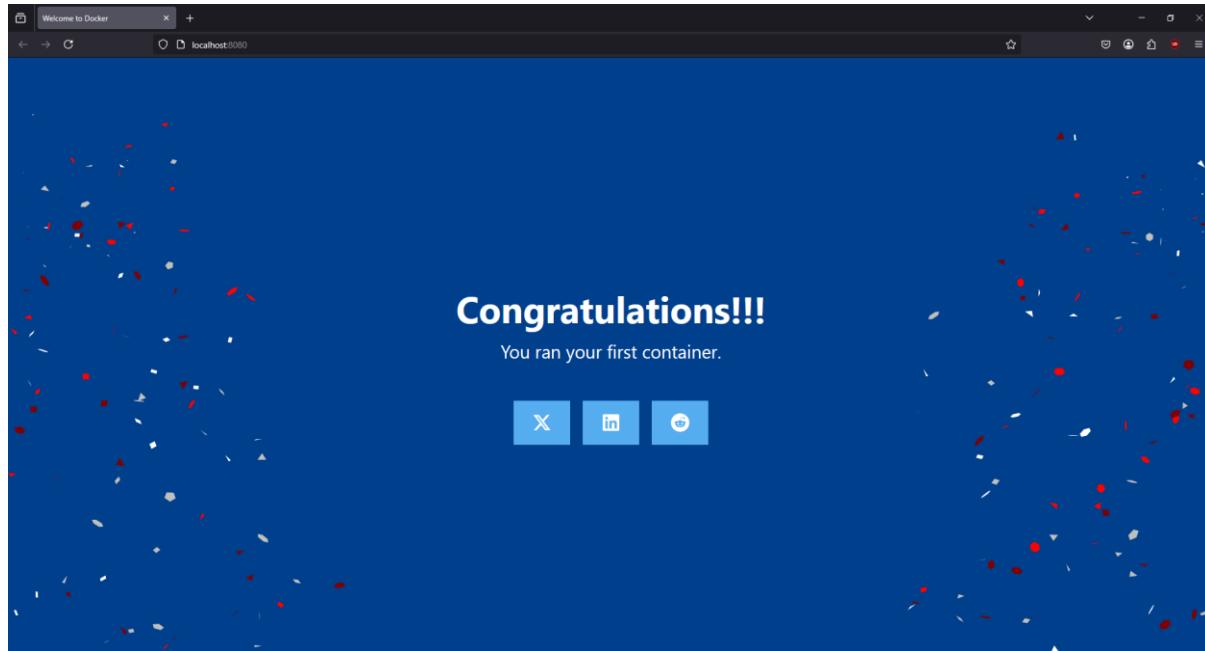
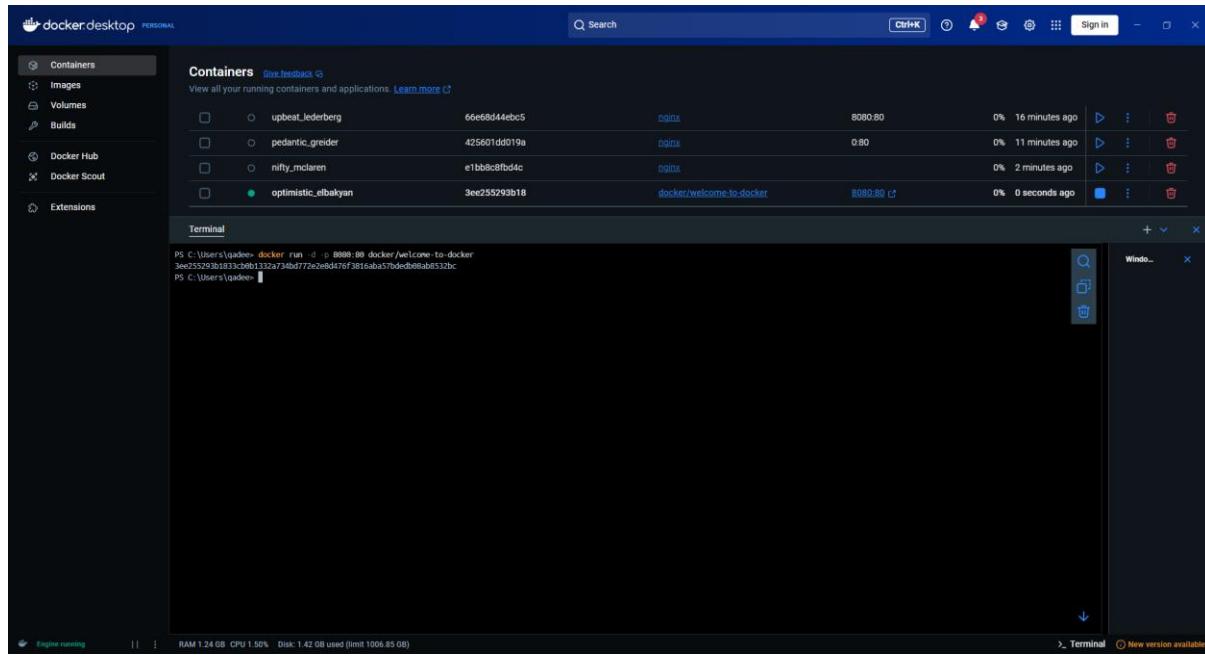
If you see this page, the nginx web server is successfully installed and working. Further configuration is required.

For online documentation and support please refer to nginx.org.
Commercial support is available at nginx.com.

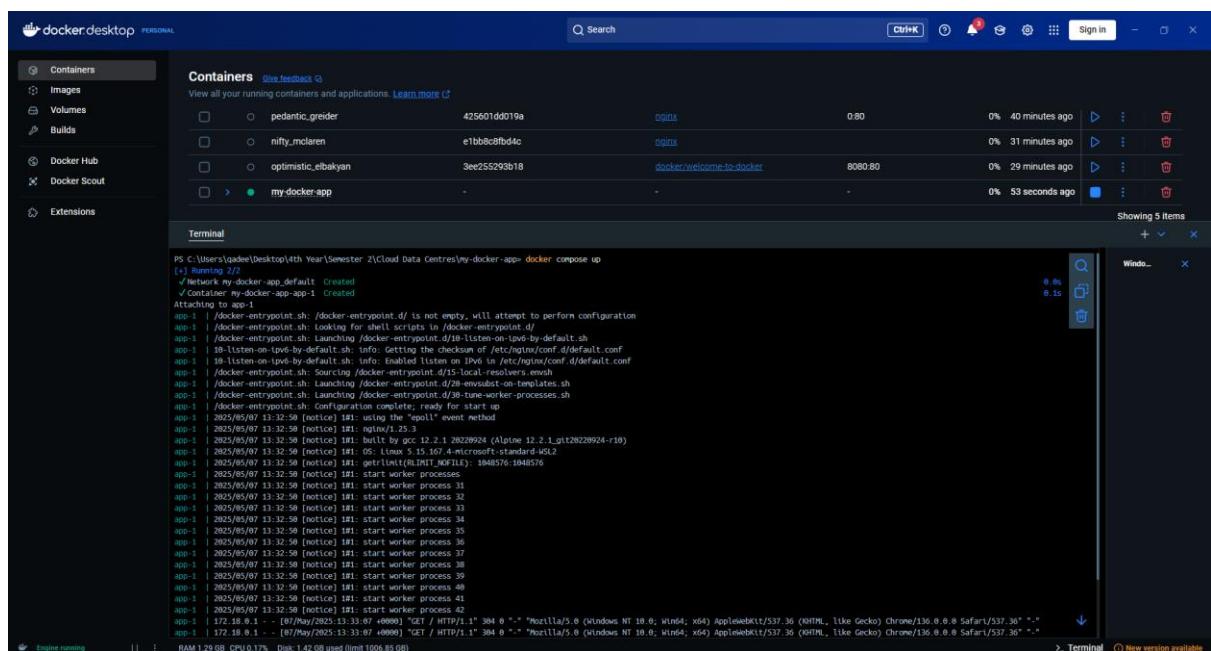
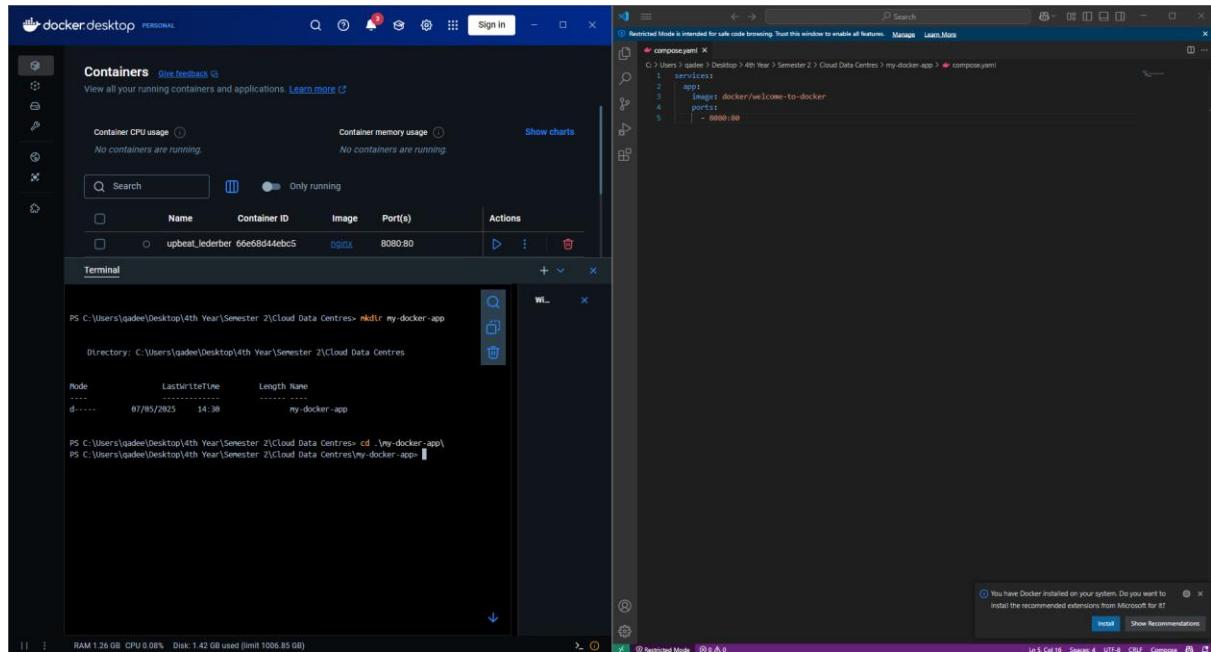
Thank you for using nginx.

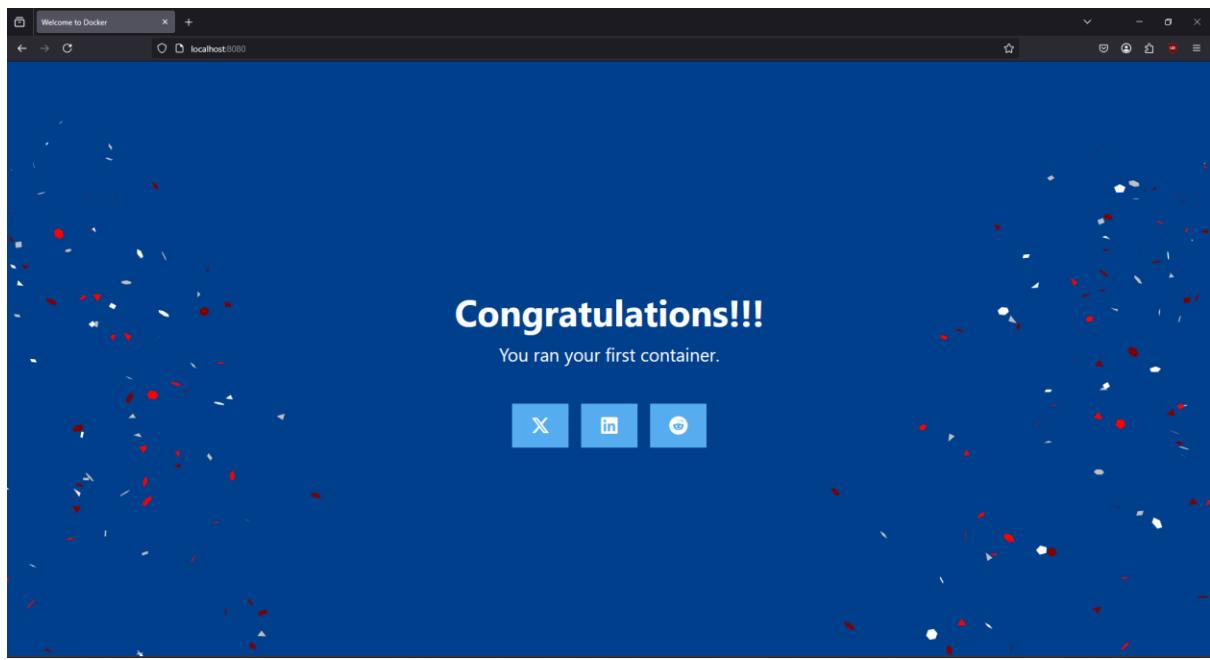
Try it out

Use the docker CLI



Use docker compose

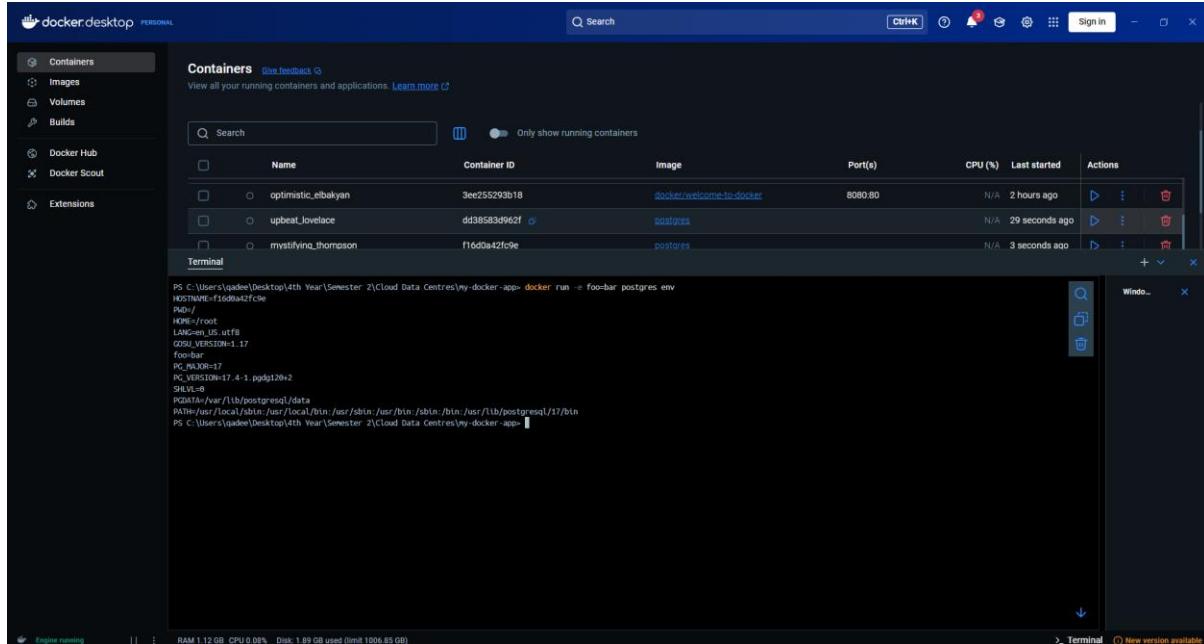




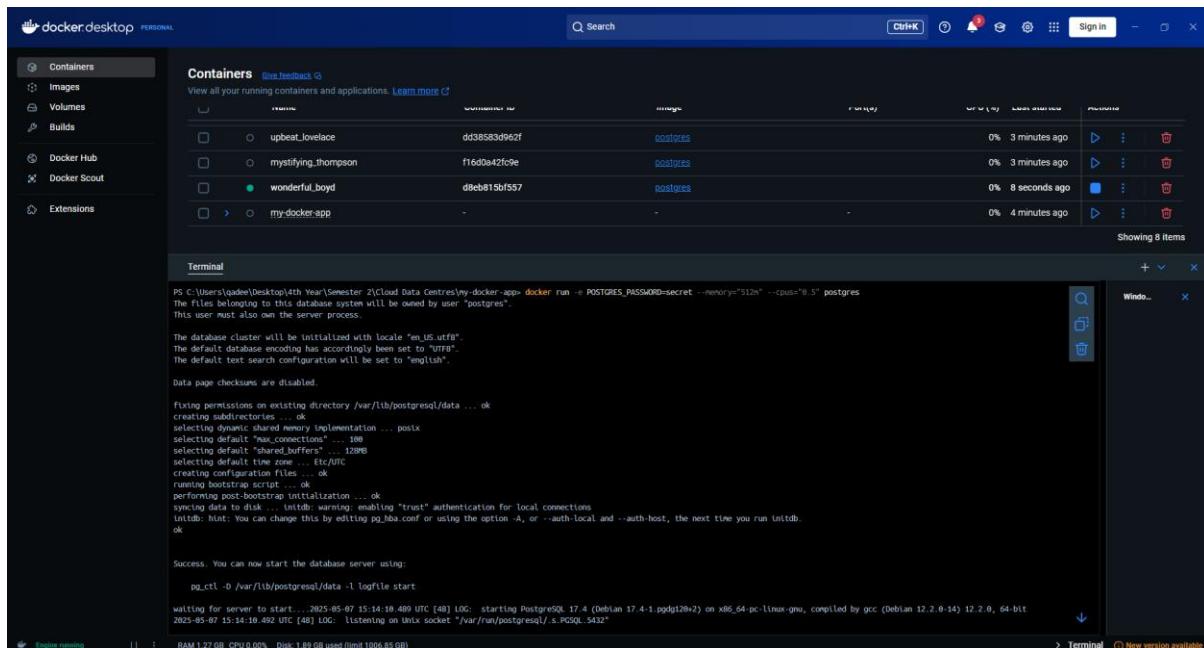
Overriding container defaults

Overriding the network ports

Setting environmental variables



Restricting the container to consume the resources



The screenshot shows the Docker Desktop application interface. The left sidebar contains navigation links: Containers, Images, Volumes, Builds, Docker Hub, Docker Scout, and Extensions. The main area is divided into two panes: 'Containers' and 'Terminal'.
Containers: A table listing running containers. The columns are: Name, Image, Status, CPU %, Memory %, Last updated, and Actions. The table shows four containers:

- upbeat_lovelace (dd36583d962f, postgres, 0%, 4 minutes ago)
- mystifying_thompson (f16d0a42fc0e, postgres, 0%, 3 minutes ago)
- wonderful_boyd (d9eb815bf557, postgres, 0.95%, 33 seconds ago)
- my-docker-app (-, -)

Terminal: A terminal window displaying PostgreSQL logs. The logs show the startup of multiple PostgreSQL servers (upbeat_lovelace, mystifying_thompson, wonderful_boyd) and the shutdown of my-docker-app. The logs include details like log file paths, transaction counts, and sync times.

```
waiting for server to start....2025-05-07 15:14:10.492 UTC [48] LOG: starting PostgreSQL 17.4 (Debian 17.4-1.pgdg120+2) on x86_64-pc-linux-gnu, compiled by gcc (Debian 12.2.0-14) 12.2.0, 64-bit
2025-05-07 15:14:10.492 UTC [48] LOG: listening on Unix socket "/var/run/postgresql/.s.PGSQL.5432"
2025-05-07 15:14:10.581 UTC [51] LOG: database system was shut down at 2025-05-07 15:14:10 UTC
2025-05-07 15:14:10.548 UTC [48] LOG: database system is ready to accept connections
done
server started

/usr/local/bin/docker-entrypoint.sh: ignoring /docker-entrypoint-initdb.d/*
2025-05-07 15:14:10.641 UTC [48] LOG: received fast shutdown request
waiting for server to shut down...2025-05-07 15:14:10.646 UTC [48] LOG: aborting any active transactions
2025-05-07 15:14:10.648 UTC [48] LOG: background worker "logical replication launcher" (PID 54) exited with exit code 1
2025-05-07 15:14:10.649 UTC [49] LOG: shutting down
2025-05-07 15:14:10.652 UTC [49] LOG: checkpoint starting; shutdown immediate
2025-05-07 15:14:10.653 UTC [49] LOG: checkpoint complete; wrote 3 buffers (0.0%) ; 0 WAL file(s) added, 0 removed, 0 recycled; written=0.006 s, sync=0.003 s, total=0.022 s; sync files=2, longest=0.002 s,
average=0.011 s; duration=40 ms; estimated available memory=12800/14640B
2025-05-07 15:14:10.675 UTC [48] LOG: database system is shut down
done
server stopped

PostgreSQL init process complete, ready for start up.

2025-05-07 15:14:10.771 UTC [1] LOG: starting PostgreSQL 17.4 (Debian 17.4-1.pgdg120+2) on x86_64-pc-linux-gnu, compiled by gcc (Debian 12.2.0-14) 12.2.0, 64-bit
2025-05-07 15:14:10.772 UTC [1] LOG: listening on IPv4 address "0.0.0.0", port 5432
2025-05-07 15:14:10.772 UTC [1] LOG: listening on Unix socket "/var/run/postgresql/.s.PGSQL.5432"
2025-05-07 15:14:10.778 UTC [1] LOG: database system was shut down at 2025-05-07 15:14:10 UTC
2025-05-07 15:14:10.785 UTC [62] LOG: database system is ready to accept connections
2025-05-07 15:14:10.794 UTC [1] LOG: database system is ready to accept connections
```

At the bottom, resource usage is shown: RAM 1.28 GB, CPU 0.00%, Disk 1.93 GB used (limit 1806.85 GB). A 'Terminal' button and a 'New version available' notification are also present.

Try it out

Docker Desktop interface showing a terminal session running a PostgreSQL container.

Containers

Name	Container ID	Image	Port(s)	CPU (%)	Last started	Actions
pedantic_greider	425601dd019a	nginx	0:80	0%	9 days ago	[Edit]
upbeat_lederberg	66e68d44ebc5	nginx	8080:80	0%	9 days ago	[Edit]
priceless_jepsen	4e4929537b00	postgres	5432:5432	0.03%	13 seconds ago	[Edit]
my-docker-app	-	-	-	0%	9 days ago	[Edit]

Terminal

```
Windows PowerShell
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PS C:\Users\gadee> docker run -d -e POSTGRES_PASSWORD=secret -p 5432:5432 postgres
4e4929537b00:2020-04-14-14:45:28.7952161efdbabf723
PS C:\Users\gadee>
```

Docker Desktop interface showing a terminal session running a PostgreSQL container with a different name.

Containers

Name	Container ID	Image	Port(s)	CPU (%)	Last started	Actions
pedantic_greider	425601dd019a	nginx	0:80	0%	9 days ago	[Edit]
upbeat_lederberg	66e68d44ebc5	nginx	8080:80	0%	9 days ago	[Edit]
priceless_jepsen	4e4929537b00	postgres	5432:5432	0.02%	54 seconds ago	[Edit]
serene_yallow	a01495e04e0e	postgres	5433:5432	0%	0 seconds ago	[Edit]

Terminal

```
Windows PowerShell
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Install the latest PowerShell for new features and improvements! https://aka.ms/PSWindows
PS C:\Users\gadee> docker run -d -e POSTGRES_PASSWORD=secret -p 5432:5432 postgres
4e4929537b00:2020-04-14-14:45:28.7952161efdbabf723
PS C:\Users\gadee> docker ps
CONTAINER ID        IMAGE               COMMAND             CREATED             STATUS              PORTS               NAMES
a01495e04e0e        postgres            "postgres -h ...  "   54 seconds ago    Up 54 seconds          5433/tcp, 5432/tcp   serene_yallow
PS C:\Users\gadee>
```

Docker Desktop interface showing a terminal session running a PostgreSQL container with a different name and a new one added.

Containers

Name	Container ID	Image	Port(s)	CPU (%)	Last started	Actions
pedantic_greider	425601dd019a	nginx	0:80	0%	9 days ago	[Edit]
upbeat_lederberg	66e68d44ebc5	nginx	8080:80	0%	9 days ago	[Edit]
priceless_jepsen	4e4929537b00	postgres	5432:5432	0.04%	1 minute ago	[Edit]
serene_yallow	a01495e04e0e	postgres	5433:5432	0.02%	29 seconds ago	[Edit]

Terminal

```
Windows PowerShell
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PS C:\Users\gadee>
```

Run Postgres container in a controlled network

Docker Desktop interface showing three containers running:

Name	Container ID	Image	Port(s)	CPU (%)	Last started	Actions
upbeat_leiderberg	66e68d44ebc5	nginx	8080:80	0%	9 days ago	[...]
priceless_jepsen	4e4929537b00	postgres	5432:5432	0.01%	5 minutes ago	[...]
serene_yallow	a01495e04e0e	postgres	5433:5432	0%	4 minutes ago	[...]

Terminal output:

```
PS C:\Users\qadeer> docker network create synetwork
4a57793903c5a6d25f2f91d8995dd869476cf941a7308ca980afbd523cc8a9
PS C:\Users\qadeer>
```

Docker Desktop interface showing three containers running:

Name	Container ID	Image	Port(s)	CPU (%)	Last started	Actions
upbeat_leiderberg	66e68d44ebc5	nginx	8080:80	0%	9 days ago	[...]
priceless_jepsen	4e4929537b00	postgres	5432:5432	0%	6 minutes ago	[...]
serene_yallow	a01495e04e0e	postgres	5433:5432	0%	5 minutes ago	[...]

Terminal output:

```
PS C:\Users\qadeer> docker network create mynetwork
4a57793903c5a6d25f2f91d8995dd869476cf941a7308ca980afbd523cc8a9
PS C:\Users\qadeer> docker network ls
NETWORK      IPAM
bridge        bridge  default
host         host    local
eth0         none   local
4a57793903c5 my-docker-app_default  bridge  local
4a57793903c5 mynetwork       bridge  local
86855687a7da none   null   local
PS C:\Users\qadeer>
```

Docker Desktop interface showing the Containers tab. The sidebar includes options for Containers, Images, Volumes, Builds, Docker Hub, Docker Scout, and Extensions. The main area displays a table of running containers:

Name	Container ID	Image	Port(s)	CPU (%)	Last started	Actions
priceless_jepsen	4e4929537b00	postgres	5432:5432	0%	6 minutes ago	[Edit, Stop, Delete]
serene_yellow	a01495e04e0e	postgres	5433:5432	0%	5 minutes ago	[Edit, Stop, Delete]
intelligent_rosalind	0bb9be849822	postgres	5434:5432	0.03%	7 seconds ago	[Edit, Stop, Delete]
my-docker-app	-	-	-	0%	9 days ago	[Edit, Stop, Delete]

The terminal pane shows command-line interactions:

```
PS C:\Users\qadeer> docker network create mynetwork
4a577939003c5a6d29f2f0d0899dd6947cfc91a7308ca90af8fbda523cc68a9
PS C:\Users\qadeer> docker network ls
NETWORK ID      NAME      DRIVER      SCOPE
fa2e279fc59...  bridge    bridge      local
907de3c9981...  host      host       local
e0518af06d3...  my-docker-app_default  bridge      local
4a577939003...  mynetwork  bridge      local
8bb560743da...  null      null       local
PS C:\Users\qadeer> docker run -d -e POSTGRES_PASSWORD=secret -p 5434:5432 --network mynetwork postgres
0bb9be849822:21326199bc2946d5a2addbebe07c17bd5de490cf9411f633fab
PS C:\Users\qadeer>
```

System status at the bottom: RAM 1.24 GB, CPU 0.0%, Disk 2.01 GB used (limit 1006.85 GB).

Manage the resources

Docker Desktop interface showing the Containers tab. The sidebar includes options for Containers, Images, Volumes, Builds, Docker Hub, Docker Scout, and Extensions. The main area displays a table of running containers:

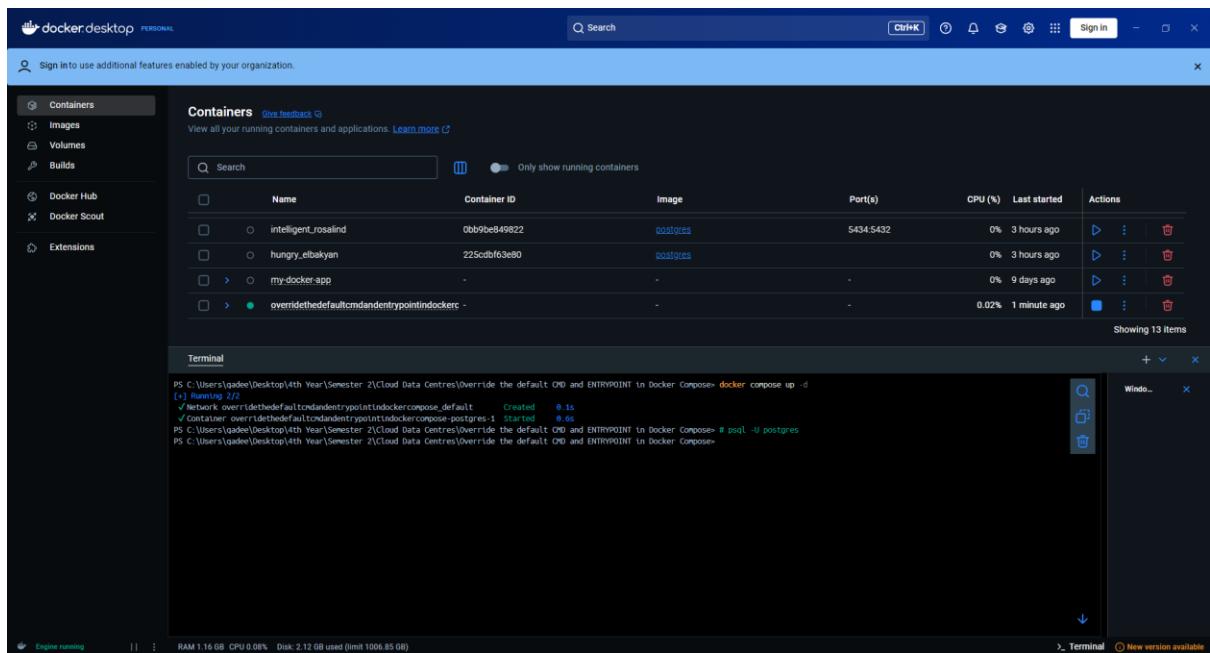
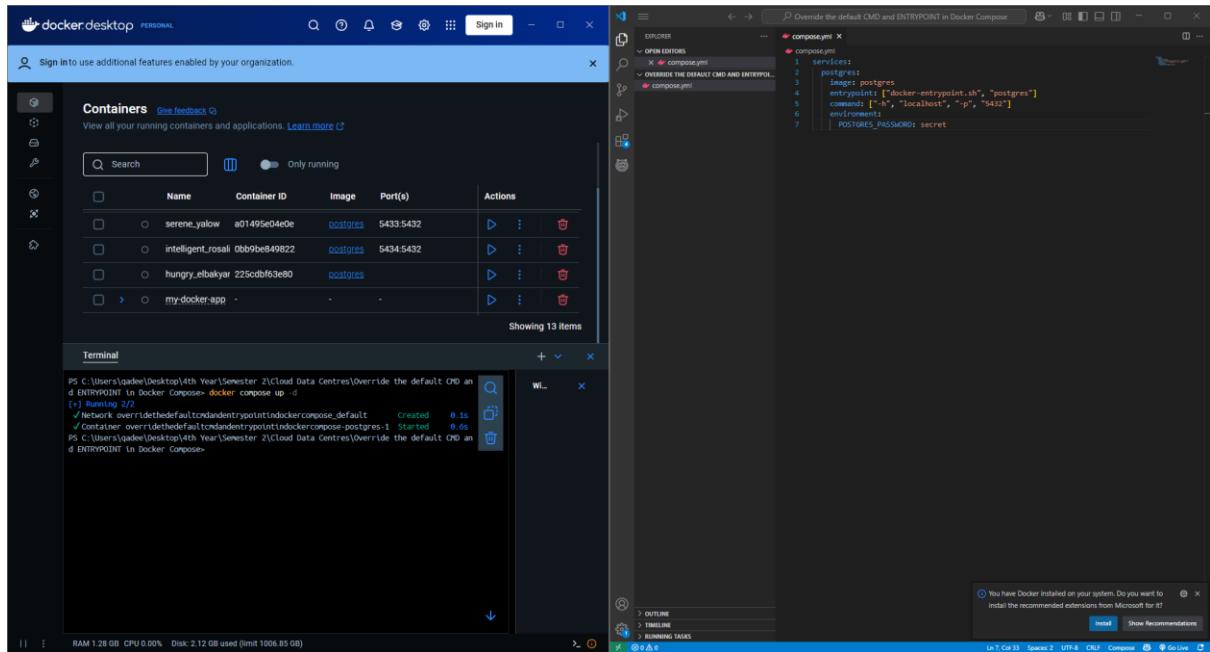
Name	Container ID	Image	Port(s)	CPU (%)	Last started	Actions
serene_yellow	a01495e04e0e	postgres	5433:5432	0%	7 minutes ago	[Edit, Stop, Delete]
intelligent_rosalind	0bb9be849822	postgres	5434:5432	0.02%	2 minutes ago	[Edit, Stop, Delete]
hungry_elbakyan	225cdbf63e80	postgres	-	0%	3 seconds ago	[Edit, Stop, Delete]
my-docker-app	-	-	-	0%	9 days ago	[Edit, Stop, Delete]

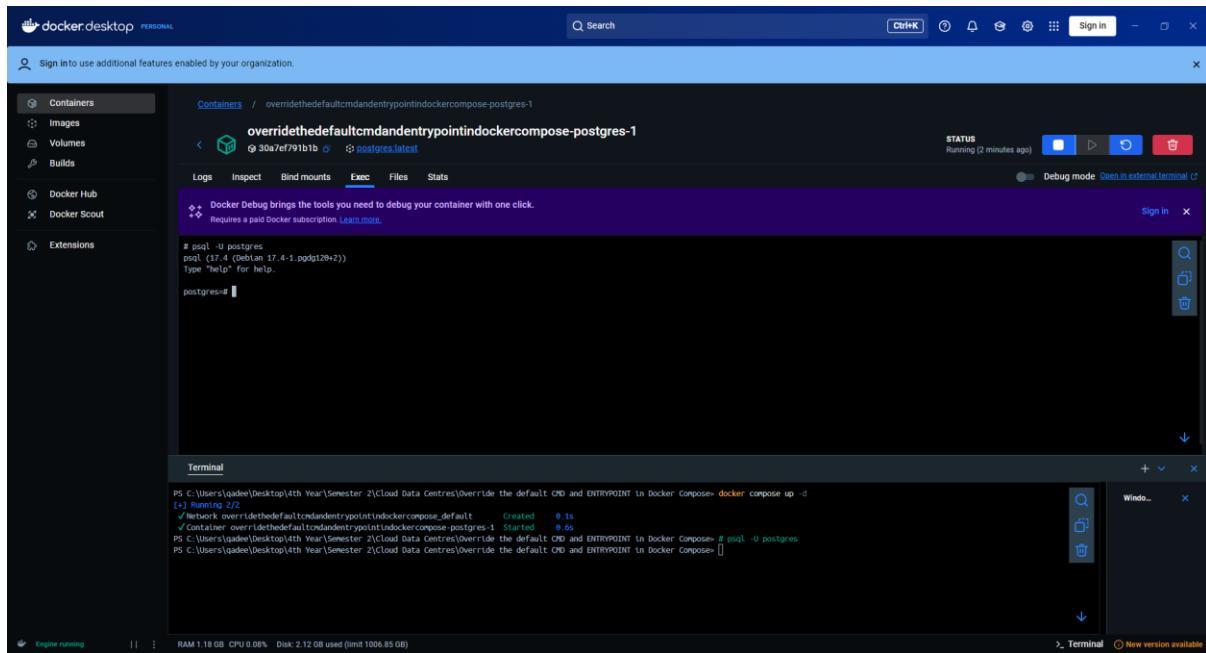
The terminal pane shows command-line interactions:

```
PS C:\Users\qadeer> docker run -d -e POSTGRES_PASSWORD=secret -m memory="512m" --cpus=.5 postgres
225cdbf63e80:49934ca965db2825d8e5871b958d9c33ee4b72f9267685
PS C:\Users\qadeer>
```

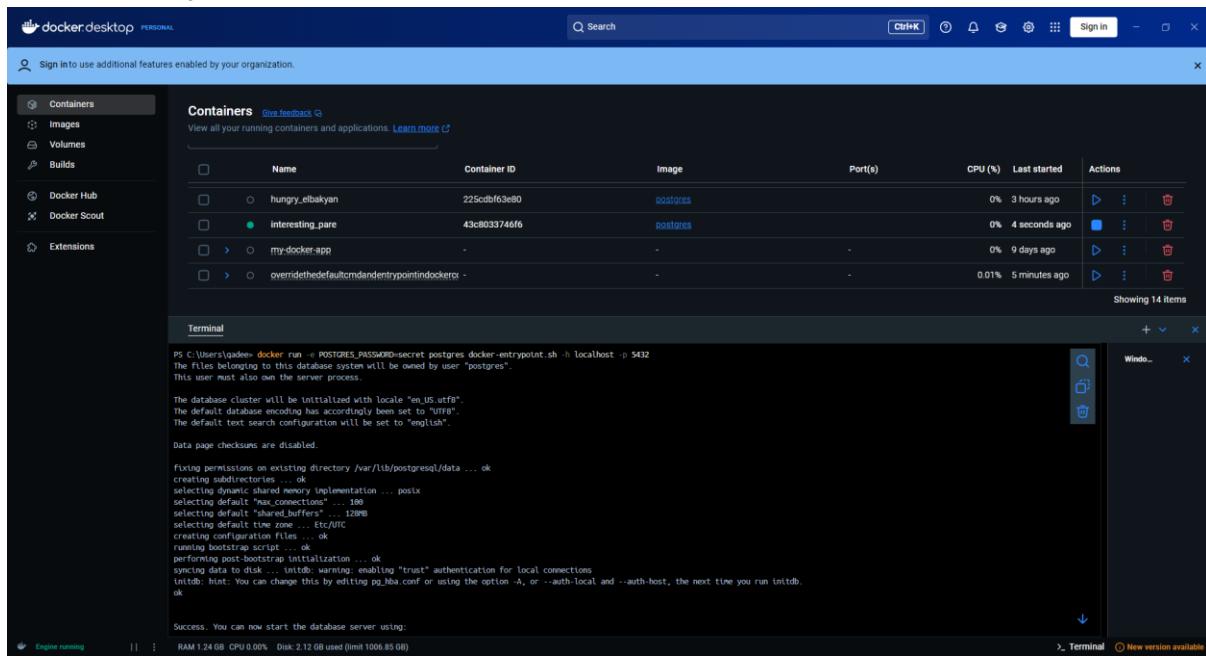
System status at the bottom: RAM 1.27 GB, CPU 4.91%, Disk 2.04 GB used (limit 1006.85 GB).

Override the default CMD and ENTRYPPOINT in Docker Compose





Override the default CMD and ENTRYPOINT with docker run



docker desktop PERSONAL

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Name	Container ID	Image	Port(s)	CPU (%)	Last started	Actions
hungry_elbakyan	225cd6f63e80	postgres	-	0%	3 hours ago	
interesting_pare	43c8033746f6	postgres	-	0.02%	32 seconds ago	
my_docker_app	-	-	-	0%	9 days ago	
overridethedefaultcmdandentrypointdockers -	-	-	-	0%	6 minutes ago	

Showing 14 items

Terminal

```
pg_ctl -D /var/lib/postgresql/data -l logfile start
waiting for server to start... 2025-05-16 14:32:53.488 UTC [48] LOG:  starting PostgreSQL 17.4 (Debian 17.4-1.pgdg129+2) on x86_64-pc-linux-gnu, compiled by gcc (Debian 12.2.0-14) 12.2.0, 64-bit
2025-05-16 14:32:52.512 UTC [48] LOG:  listening on Unix socket "/var/run/postgresql/.PGSOCKET"
2025-05-16 14:32:52.128 UTC [51] LOG:  database system was shut down at 2025-05-16 14:32:51 UTC
2025-05-16 14:32:52.128 UTC [48] LOG:  database system is ready to accept connections
done
server started

/usr/local/bin/docker-entrypoint.sh: ignoring /docker-entrypoint-initdb.d/*
waiting for server to shut down... 2025-05-16 14:32:52.236 UTC [48] LOG:  received fast shutdown request
2025-05-16 14:32:52.236 UTC [48] LOG:  aborting any active transactions
2025-05-16 14:32:52.236 UTC [48] LOG:  background worker "logical replication launcher" (PID 54) exited with exit code 1
2025-05-16 14:32:52.236 UTC [49] LOG:  shutting down
2025-05-16 14:32:52.236 UTC [49] LOG:  checkpoint starting: shutdown immediate
2025-05-16 14:32:52.246 UTC [49] LOG:  checkpoint complete: wrote 3 buffers; 0 WAL file(s) added, 0 removed, 0 recycled; write=0.006 s, sync=0.003 s, total=0.020 s; sync files=2, longest=0.002 s,
average=0.002 s, distance=0 kB, estimated=0 kB; lsn=0/1AE4FA0, redo lsn=0/1AE4FA0
2025-05-16 14:32:52.251 UTC [48] LOG:  database system is shut down
done

PostgreSQL unit process complete; ready for start up.

2025-05-16 14:32:52.348 UTC [1] LOG:  starting PostgreSQL 17.4 (Debian 17.4-1.pgdg129+2) on x86_64-pc-linux-gnu, compiled by gcc (Debian 12.2.0-14) 12.2.0, 64-bit
```

RAM 1.25 GB CPU 0.00% Disk 2.16 GB used (0MB 1006.85 MB)

→ Terminal

Persisting container data

Container volumes

Screenshot of Docker Desktop showing the main interface. The left sidebar includes 'Containers', 'Images', 'Volumes', 'Builds', 'Docker Hub', 'Docker Scout', and 'Extensions'. The main area displays a table of running containers:

Name	Container ID	Image	Port(s)	CPU (%)	Last started	Actions
interesting_pare	43cb033746f6	postgres	-	0%	7 minutes ago	▶ ⋮ trash
cool_liskov	ee2d185d9fa6	docker/welcome-to-docker	80:80	0%	13 seconds ago	▶ ⋮ trash
my-docker-app	-	-	-	0%	0 days ago	▶ ⋮ trash
overridethedefaultcmdandentrypointindocker	-	-	-	0%	12 minutes ago	▶ ⋮ trash

The terminal window shows the command used to create a volume and run the container:

```
PS C:\Users\qadeer> docker volume create log-data
log-data
PS C:\Users\qadeer> docker run -d -p 80:80 -v log-data:/logs docker/welcome-to-docker
ee2d185d9fa6:723f1253efbfc28bd5fb4e9edet3cc14e95
PS C:\Users\qadeer>
```

Screenshot of Docker Desktop showing the file system view for the 'cool_liskov' container. The left sidebar includes 'Containers', 'Images', 'Volumes', 'Builds', 'Docker Hub', 'Docker Scout', and 'Extensions'. The main area shows the file structure of the container:

- cool_liskov (Container ID: ee2d185d9fa6, Status: Running 27 seconds ago)
- Logs
- Inspect
- Bind mounts
- Exec
- Files** (selected)
- Stats

The 'Files' tab shows the contents of the container's file system:

Name	Note	Size	Last modified	Mode
docker-entrypoint.d		1.6 kB	2 years ago	drwxr-xr-x
docker-entrypoint.sh			2 years ago	-rwxrwxr-x
etc			36 seconds ago	drwxr-xr-x
home			2 years ago	drwxr-xr-x
lib			2 years ago	drwxr-xr-x
logs	MODIFIED		1 minute ago	drwxr-xr-x
media			2 years ago	drwxr-xr-x
mnt			2 years ago	drwxr-xr-x
opt			2 years ago	drwxr-xr-x
proc			36 seconds ago	dr-xr-xr-x

The terminal window shows the same commands as the previous screenshot.

Managing volumes

Try it out

Use volumes

The screenshot shows the Docker Desktop interface. On the left, a sidebar includes options like Containers, Images, Volumes, and Builds. The main area displays a table of running containers. One container, 'db', is highlighted in green. The terminal window at the bottom shows the command used to run the PostgreSQL container.

Name	Container ID	Image	Port(s)	CPU (%)	Last started	Actions
hungry_elbakan	225cdbf63e80	postgres	-	0%	3 hours ago	[Edit] [More] [Delete]
interesting_pare	43cb033746f6	postgres	-	0%	10 minutes ago	[Edit] [More] [Delete]
cool_liskov	ee2d185d9fa6	docker/welcome-to-docker	80:80	0%	4 minutes ago	[Edit] [More] [Delete]
db	39da148308d8	postgres	-	0%	2 seconds ago	[Edit] [More] [Delete]
my-docker-app	-	-	-	0%	9 days ago	[Edit] [More] [Delete]
override-the-default-command-and-entrypoint-in-dockerfile	-	-	-	0%	16 minutes ago	[Edit] [More] [Delete]

```
PS C:\Users\qadeer> docker run -e POSTGRES_PASSWORD=secret -d -v postgres_data:/var/lib/postgresql/data postgres  
39da148308d8:22968bf5fd2f12c4a762af7257ab2f462c32b5bac7beab8  
PS C:\Users\qadeer>
```

This screenshot is identical to the one above, showing the Docker Desktop interface with the 'db' container running. The terminal window now shows the PostgreSQL prompt, indicating the container is active and accepting commands.

```
PS C:\Users\qadeer> docker run -e POSTGRES_PASSWORD=secret -d -v postgres_data:/var/lib/postgresql/data postgres  
39da148308d8:22968bf5fd2f12c4a762af7257ab2f462c32b5bac7beab8  
PS C:\Users\qadeer> docker exec -it db psql -U postgres  
psql (17.4 (Debian 17.4-1.pgdg12+0))  
Type "help" for help.  
postgres=#
```

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Search Only show running containers

Name	Container ID	Image	Port(s)	CPU (%)	Last started	Actions
cool_liskov	ee2d185d9fa6	docker/welcome-to-docker	80:80	0%	7 minutes ago	View Edit Delete
db	39da14830866	postgres	-	0.02%	3 minutes ago	View Edit Delete
my_docker_app	-	-	-	0%	9 days ago	View Edit Delete
overridethedefaultcmdandentrypointindocker	-	-	-	0%	19 minutes ago	View Edit Delete

Showing 16 items

Terminal

```
PS C:\Users\qadeer> docker exec -it db psql -U postgres
psql (17.4 (Debian 17.4-1.pgdg120+2))
Type "help" for help.

postgres=# CREATE TABLE tasks (
    id SERIAL PRIMARY KEY,
    description VARCHAR(100)
);
CREATE TABLE
INSERT 0 2
postgres=# SELECT * FROM tasks;
(id | description)
-----
1 | Finish work
2 | Have fun
(2 rows)

postgres=#
```

RAM 1.21 GB CPU 0.00% Disk 2.19 GB used (limit 1006.85 GB)

> Terminal [New version available](#)

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Search Only show running containers

Name	Container ID	Image	Port(s)	CPU (%)	Last started	Actions
interesting_pare	43cb033746f6	postgres	-	N/A	14 minutes ago	View Edit Delete
cool_liskov	ee2d185d9fa6	docker/welcome-to-docker	80:80	N/A	8 minutes ago	View Edit Delete
my_docker_app	-	-	-	N/A	9 days ago	View Edit Delete
overridethedefaultcmdandentrypointindocker	-	-	-	N/A	20 minutes ago	View Edit Delete

Showing 15 items

Terminal

```
psql (17.4 (Debian 17.4-1.pgdg120+2))
Type "help" for help.

postgres=# CREATE TABLE tasks (
    id SERIAL PRIMARY KEY,
    description VARCHAR(100)
);
CREATE TABLE
INSERT 0 2
postgres=# SELECT * FROM tasks;
(id | description)
-----
1 | Finish work
2 | Have fun
(2 rows)

postgres=# \q
PS C:\Users\qadeer> docker stop db
>> docker rm db
db
PS C:\Users\qadeer>
```

RAM 1.18 GB CPU 0.00% Disk 2.20 GB used (limit 1006.85 GB)

> Terminal [New version available](#)

Docker Desktop interface showing a terminal session with PostgreSQL tasks.

Containers

Name	Container ID	Image	Port(s)	CPU (%)	Last started	Actions
interesting_pare	43cb033746f6	postgres	-	0%	15 minutes ago	[Edit, Stop, Delete]
cool_liskov	ee2d185d9fa6	docker/welcome-to-docker	80:80	0%	8 minutes ago	[Edit, Stop, Delete]
new-db	f92e0e384ed7	postgres	-	0%	1 second ago	[Edit, Stop, Delete]
my-docker-app	-	-	-	0%	9 days ago	[Edit, Stop, Delete]

Terminal

```
postgres=# CREATE TABLE tasks (
    id SERIAL PRIMARY KEY,
    description VARCHAR(100)
);
CREATE TABLE
INSERT INTO tasks (description) VALUES ('Finish work'), ('Have fun');
INSERT 2 rows
postgres=# SELECT * FROM tasks;
 id | description
----+-----
 1 | Finish work
 2 | Have fun
(2 rows)

postgres=# \q
PS C:\Users\qadeer> docker stop db
-> docker rm db
db
PS C:\Users\qadeer> docker run -v new-db:/var/lib/postgresql/data postgres
f92e0e384ed7: Pulling from docker/welcome-to-docker
2/2:拉取完成 7.24kB/7.24kB
PS C:\Users\qadeer>
```

RAM 1.27 GB CPU 9.81% Disk 2.20 GB used (limit 1006.85 GB)

Docker Desktop interface showing a terminal session with PostgreSQL tasks.

Containers

Name	Container ID	Image	Port(s)	CPU (%)	Last started	Actions
interesting_pare	43cb033746f6	postgres	-	0%	15 minutes ago	[Edit, Stop, Delete]
cool_liskov	ee2d185d9fa6	docker/welcome-to-docker	80:80	0%	8 minutes ago	[Edit, Stop, Delete]
new-db	f92e0e384ed7	postgres	-	0.02%	13 seconds ago	[Edit, Stop, Delete]
my-docker-app	-	-	-	0%	9 days ago	[Edit, Stop, Delete]

Terminal

```
INSERT 2 rows
postgres=# SELECT * FROM tasks;
 id | description
----+-----
 1 | Finish work
 2 | Have fun
(2 rows)

postgres=# \q
PS C:\Users\qadeer> docker stop db
-> docker rm db
db
PS C:\Users\qadeer> docker run -v new-db:/var/lib/postgresql/data postgres
f92e0e384ed7: Pulling from docker/welcome-to-docker
2/2:拉取完成 7.24kB/7.24kB
PS C:\Users\qadeer> docker exec -it new-db psql -c "SELECT * FROM tasks"
 id | description
----+-----
 1 | Finish work
 2 | Have fun
(2 rows)

PS C:\Users\qadeer>
```

RAM 1.31 GB CPU 3.33% Disk 2.19 GB used (limit 1006.85 GB)

View volume contents

The screenshot shows the Docker Desktop interface. On the left, the sidebar has 'Volumes' selected. In the main area, a 'Volumes' list shows one item: 'postgres_data'. Below it, a 'Stored data' table lists files and their details. A terminal window at the bottom shows a PostgreSQL session.

Name	Size	Last modified	Mode
base	21.9 MB	6 minutes ago	drwx---
global	564.6 kB	39 seconds ago	drwx---
pg_commit_ts	0 Bytes	6 minutes ago	drwx---
pg_dynshmem	0 Bytes	6 minutes ago	drwx---
pg_hba.conf	5.6 kB	6 minutes ago	-rw----
pg_ident.conf	2.6 kB	6 minutes ago	-rw----
pg_logical	8 Bytes	2 minutes ago	drwx---
pg_multixact	16 kB	6 minutes ago	drwx---
pg_notify	0 Bytes	6 minutes ago	drwx---
pg_replslot	0 Bytes	6 minutes ago	drwx---
-	-	-	-

```
db
d
PS C:\Users\gadee> docker run -v /var/run/postgresql:/var/lib/postgresql/data postgres
f92cde38ed72483f6e38b753b6452eb581beec28537e15469f4cf7d2
PS C:\Users\gadee> docker exec -it new-db psql -U postgres -c "SELECT * FROM tasks"
t | description
1 | I finish work
2 | I have fun
(2 rows)

PS C:\Users\gadee>
```

Remove volumes

The screenshot shows the Docker Desktop interface. On the left, the sidebar has 'Containers' selected. The main area displays a table of running containers. A terminal window at the bottom shows a command being run.

Name	Container ID	Image	Port(s)	CPU (%)	Last started	Actions
intelligent_rosalind	0bb9be849822	postgres	5434:5432	N/A	3 hours ago	... ⋮ ⋮
hungry_elbakyan	225cdbf63e80	postgres		N/A	3 hours ago	... ⋮ ⋮
interesting_pare	42c8033746f6	postgres		N/A	18 minutes ago	... ⋮ ⋮
cool_liskov	ee2d185df9a6	docker/wELCOME-TO-DOCKER	80:80	N/A	11 minutes ago	... ⋮ ⋮
my_docker_app	-	-	-	N/A	9 days ago	... ⋮ ⋮
overridethedefaultcmdandentrypointindocker	-	-	-	N/A	23 minutes ago	... ⋮ ⋮

```
PS C:\Users\gadee> docker rm -f new-db
new-db
PS C:\Users\gadee>
```

docker desktop PERSONAL

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No containers are running.

Search Only show running containers

Name	Container ID	Image	Port(s)	CPU (%)	Last started	Actions
intelligent_rosalind	0bb9be849822	postgres	5434.5432	N/A	3 hours ago	▶ ⋮ ✖
hungry_elbayan	225c0bf63e80	postgres		N/A	3 hours ago	▶ ⋮ ✖
interesting_pare	43d8033746f6	postgres		N/A	18 minutes ago	▶ ⋮ ✖
cool_liskov	ee2d185d9fa6	docker/welcome-to-docker	80:80	N/A	11 minutes ago	▶ ⋮ ✖
my-docker-app	-	-	-	N/A	9 days ago	▶ ⋮ ✖
overridethedefaultcmdandentrypointindockers	-	-	-	N/A	23 minutes ago	▶ ⋮ ✖

Showing 15 items

Terminal

```
PS C:\Users\ladee> docker rm -f new-db
new-db
PS C:\Users\ladee> docker volume rm postgres_data
postgres_data
PS C:\Users\ladee> docker volume prune
WARNING! This will remove anonymous local volumes not used by at least one container.
Are you sure you want to continue? [y/N]
Total reclaimed space: 88
PS C:\Users\ladee>
```

RAM 1.32 GB CPU 0.00% Disk: 2.20 GB used (limit 1006.85 GB)

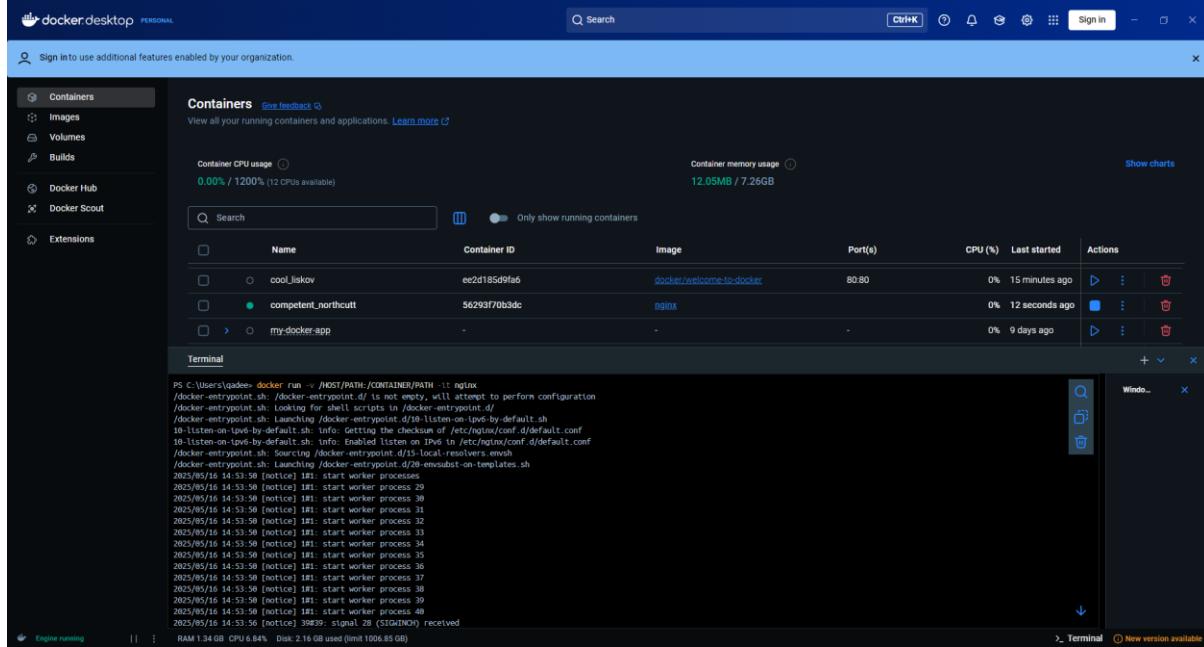
Windows Terminal New version available

The screenshot shows the Docker Desktop application window. On the left, a sidebar lists 'Containers', 'Images', 'Volumes', 'Builds', 'Docker Hub', 'Docker Scout', and 'Extensions'. The 'Containers' section is active, displaying a table of 15 items. The table columns are 'Name', 'Container ID', 'Image', 'Port(s)', 'CPU (%)', 'Last started', and 'Actions'. Several containers are listed, including 'intelligent_rosalind', 'hungry_elbayan', 'interesting_pare', 'cool_liskov', 'my-docker-app', and 'overridethedefaultcmdandentrypointindockers'. A search bar and a filter button ('Only show running containers') are above the table. Below the table, a message says 'Showing 15 items'. To the right of the table is a terminal window showing command-line history related to Docker volumes and containers. At the bottom, resource usage statistics are displayed: RAM 1.32 GB, CPU 0.00%, and Disk: 2.20 GB used (limit 1006.85 GB). A status bar at the bottom right indicates 'New version available'.

Sharing local files with containers

Volume versus bind mounts

Sharing files between a host and container

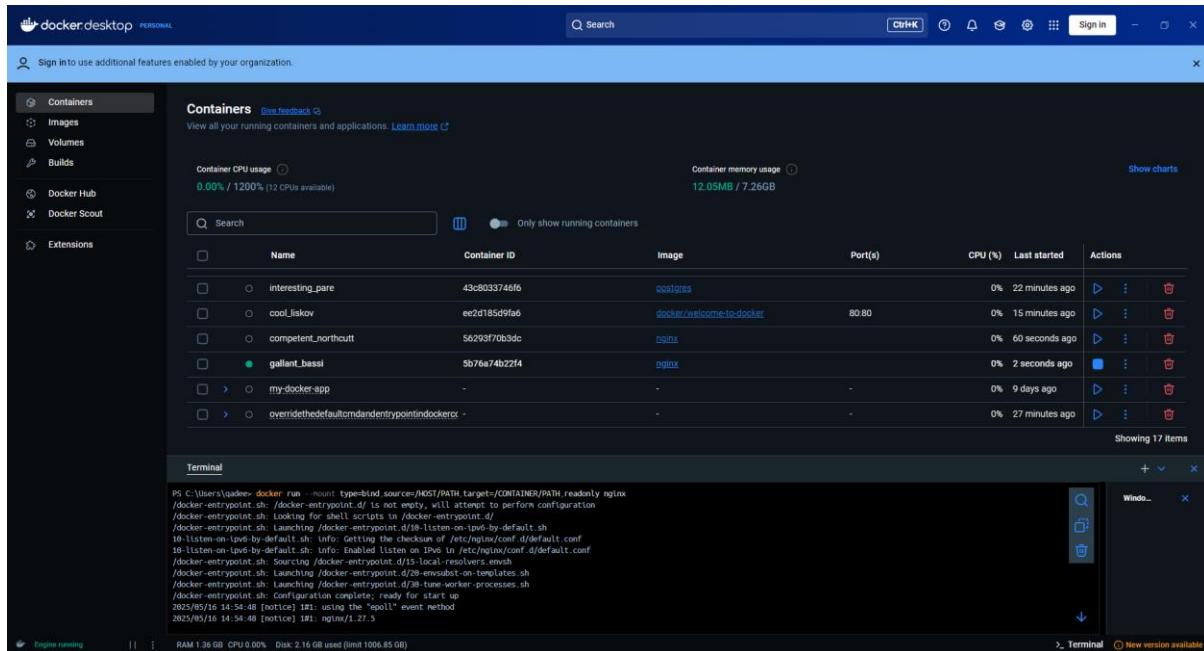


Containers

Name	Container ID	Image	Port(s)	CPU (%)	Last started	Actions
cool_liskov	ee2d185d9fa6	docker/welcome-to-docker	80:80	0%	15 minutes ago	[D] [⋮] [trash]
competent_northcutt	56293f70b3dc	nginx	-	0%	12 seconds ago	[D] [⋮] [trash]
my-docker-app	-	-	-	0%	9 days ago	[D] [⋮] [trash]

Terminal

```
PS C:\Users\qadeer> docker run -v /HOST/PATH:/CONTAINER/PATH --rm nginx
/docker-entrypoint.sh: /etc/nginx/conf.d/default.conf does not exist, will attempt to perform configuration
/docker-entrypoint.sh: Looking for shell scripts in /docker-entrypoint.d/
/docker-entrypoint.sh: Launching /docker-entrypoint.d/10-listen-on-ipv6-by-default.sh
10-listen-on-ipv6-by-default.sh: Info: Getting the checksum of /etc/nginx/conf.d/default.conf
10-listen-on-ipv6-by-default.sh: Info: Enabled listen on IPv6 in /etc/nginx/conf.d/default.conf
/docker-entrypoint.sh: Sourcing /docker-entrypoint.d/15-local-resolvers-envsh
/docker-entrypoint.sh: Launching /docker-entrypoint.d/20-tune-worker-processes.sh
/docker-entrypoint.sh: Configuration complete, ready for start up
/docker-entrypoint.sh: Using the "poll" event method
2025/05/16 14:53:58 [notice] 1#1 start worker processes
2025/05/16 14:53:58 [notice] 1#1 start worker process 29
2025/05/16 14:53:58 [notice] 1#1 start worker process 30
2025/05/16 14:53:58 [notice] 1#1 start worker process 31
2025/05/16 14:53:58 [notice] 1#1 start worker process 32
2025/05/16 14:53:58 [notice] 1#1 start worker process 33
2025/05/16 14:53:58 [notice] 1#1 start worker process 34
2025/05/16 14:53:58 [notice] 1#1 start worker process 35
2025/05/16 14:53:58 [notice] 1#1 start worker process 36
2025/05/16 14:53:58 [notice] 1#1 start worker process 37
2025/05/16 14:53:58 [notice] 1#1 start worker process 38
2025/05/16 14:53:58 [notice] 1#1 start worker process 39
2025/05/16 14:53:58 [notice] 1#1 start worker process 40
2025/05/16 14:53:58 [notice] signal 28 (SIGWINCH) received
```



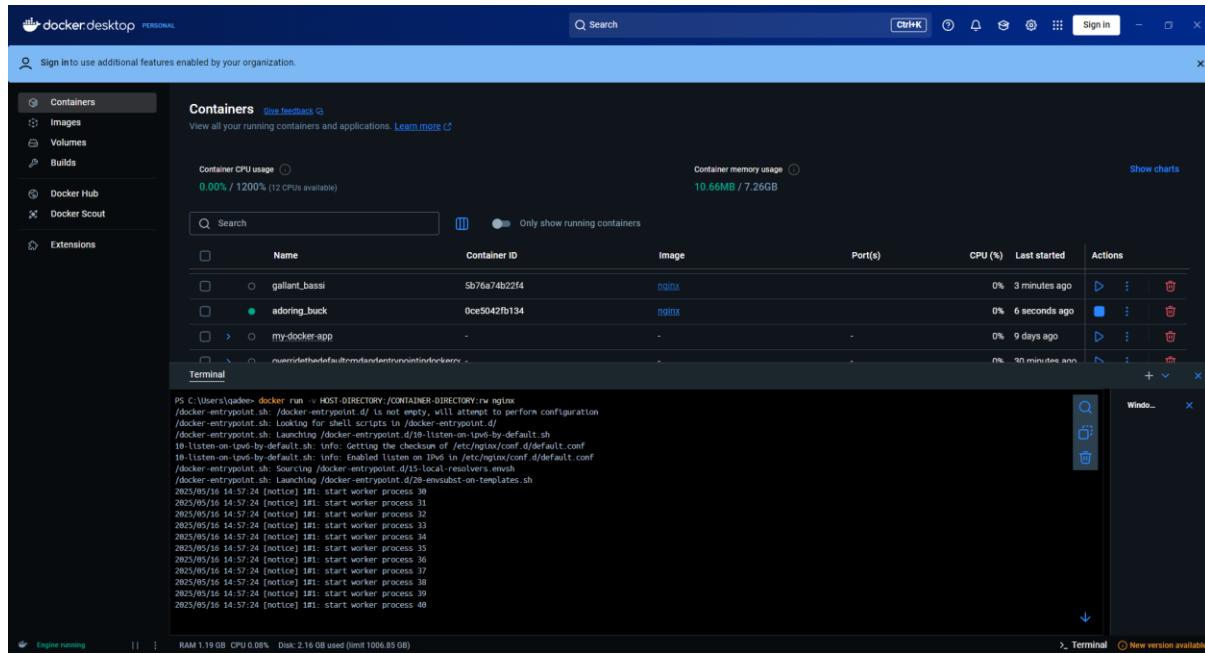
Containers

Name	Container ID	Image	Port(s)	CPU (%)	Last started	Actions
interesting_pare	43cb033746f6	postres	-	0%	22 minutes ago	[D] [⋮] [trash]
cool_liskov	ee2d185d9fa6	docker/welcome-to-docker	80:80	0%	15 minutes ago	[D] [⋮] [trash]
competent_northcutt	56293f70b3dc	nginx	-	0%	60 seconds ago	[D] [⋮] [trash]
gallant_bassl	5b76a74b22f4	nginx	-	0%	2 seconds ago	[D] [⋮] [trash]
my-docker-app	-	-	-	0%	9 days ago	[D] [⋮] [trash]
overridethedefaultcmdandidentitypointindocker	-	-	-	0%	27 minutes ago	[D] [⋮] [trash]

Terminal

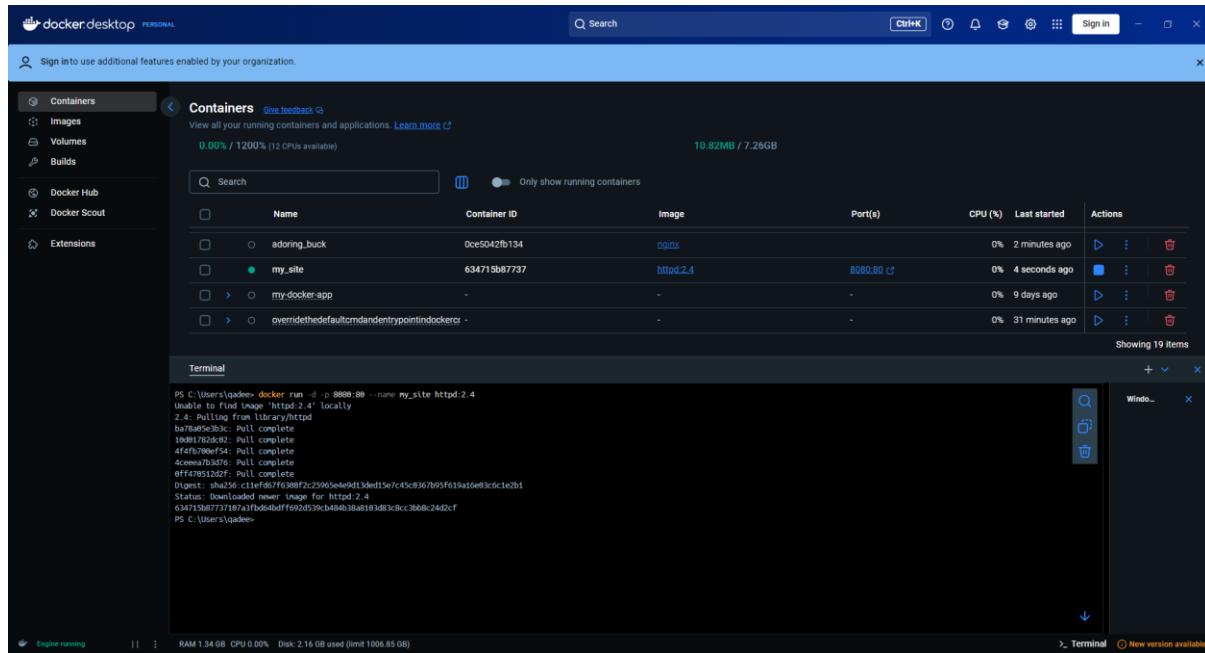
```
PS C:\Users\qadeer> docker run -v /HOST/PATH:/CONTAINER/PATH,readonly nginx
/docker-entrypoint.sh: /etc/nginx/conf.d/default.conf does not exist, will attempt to perform configuration
/docker-entrypoint.sh: Looking for shell scripts in /docker-entrypoint.d/
/docker-entrypoint.sh: Launching /docker-entrypoint.d/10-listen-on-ipv6-by-default.sh
10-listen-on-ipv6-by-default.sh: Info: Getting the checksum of /etc/nginx/conf.d/default.conf
10-listen-on-ipv6-by-default.sh: Info: Enabled listen on IPv6 in /etc/nginx/conf.d/default.conf
/docker-entrypoint.sh: Sourcing /docker-entrypoint.d/15-local-resolvers-envsh
/docker-entrypoint.sh: Launching /docker-entrypoint.d/20-tune-worker-processes.sh
/docker-entrypoint.sh: Configuration complete, ready for start up
/docker-entrypoint.sh: Using the "poll" event method
2025/05/16 14:54:48 [notice] 1#1 using the "poll" event method
2025/05/16 14:54:48 [notice] 1#1 nginx/1.27.3
```

File permissions for Docker access to host files



Try it out

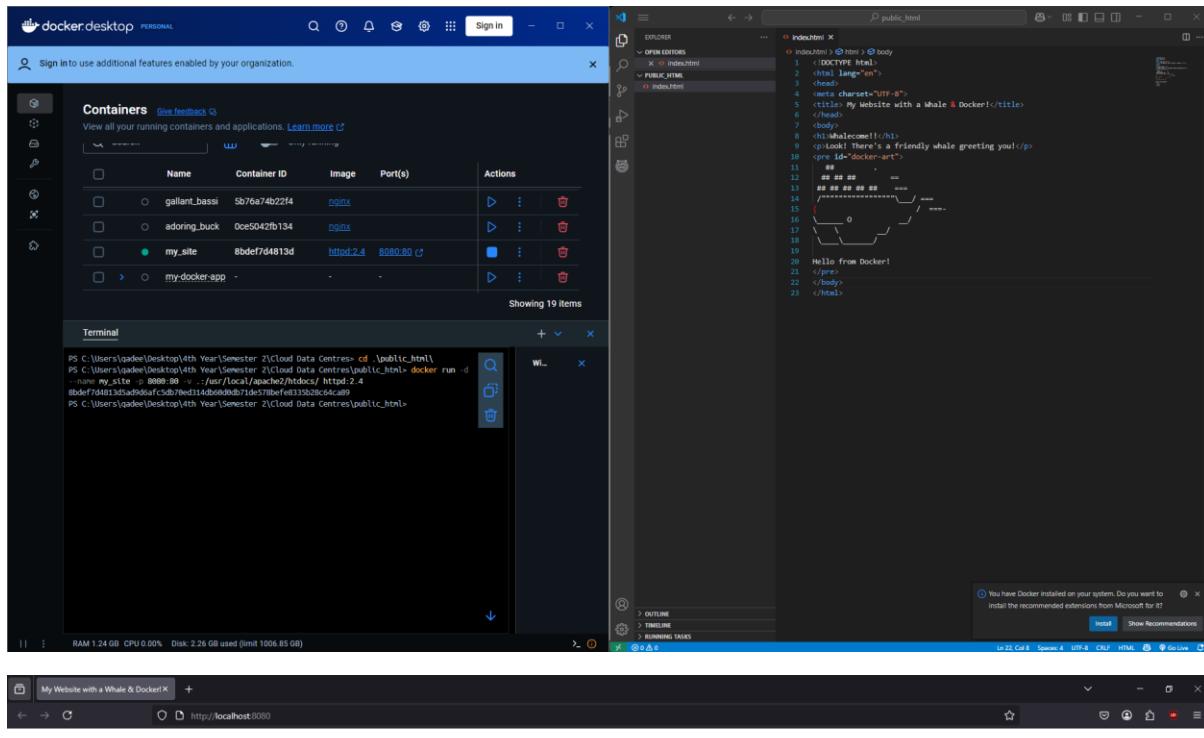
Run a container





Use a bind mount

A screenshot of the Docker Desktop application interface. On the left, there's a sidebar with options like Containers, Images, Volumes, Builds, Docker Hub, Docker Scout, and Extensions. The main area is titled 'Containers' and shows two containers: 'adoring_buck' and 'my_site'. The 'my_site' container is selected. Below the container list is a terminal window. The terminal output shows a curl command being run against localhost:8080, which results in an error message indicating that the URI prefix is not recognized. At the bottom of the terminal window, it says 'PS C:\Users\quadee>'. The status bar at the bottom of the screen shows 'Engine running', 'RAM 1.21 GB CPU 0.08%', 'Disk 2.26 GB used (limit 1006.85 GB)', and 'Terminal > New version available'.



Access the file on the Docker Desktop Dashboard

The screenshot shows the Docker Desktop interface. A container named "my_site" is running, with port 8080 mapped to 80. The "Files" tab is selected, displaying the contents of the "/usr/local/apache2/htdocs" directory. The "index.html" file contains the following code:

```
<!DOCTYPE html>
<html>
<head>
<title>Hello World</title>
</head>
<body>
<h1>Hello World</h1>
<p>Look! There's a friendly whale greeting you!</p>
<p id="docker-art">
    %% %% %% ==
</p>
</body>
</html>
```

The terminal window shows the command used to run the container:

```
PS C:\Users\qadeer\Desktop\4th Year\Semester 2\Cloud Data Centres> cd \public_html
PS C:\Users\qadeer\Desktop\4th Year\Semester 2\Cloud Data Centres\public_html> docker run -d --name my_site -p 8080:80 -v ..:/usr/local/apache2/htdocs/ httpd:2.4
8bdef7d4813d45e50f4c5d78ed14db50e0bd71de570bef0e335b20c64ca89
PS C:\Users\qadeer\Desktop\4th Year\Semester 2\Cloud Data Centres\public_html> [REDACTED]
```

The screenshot shows the Docker Desktop interface. A container named "my_site" is running, with port 8080 mapped to 80. The "Files" tab is selected, displaying the contents of the "/usr/local/apache2/htdocs" directory. A "logs" folder is present. The terminal window shows the command used to run the container:

```
PS C:\Users\qadeer\Desktop\4th Year\Semester 2\Cloud Data Centres> cd \public_html
PS C:\Users\qadeer\Desktop\4th Year\Semester 2\Cloud Data Centres\public_html> docker run -d --name my_site -p 8080:80 -v ..:/usr/local/apache2/htdocs/ httpd:2.4
8bdef7d4813d45e50f4c5d78ed14db50e0bd71de570bef0e335b20c64ca89
PS C:\Users\qadeer\Desktop\4th Year\Semester 2\Cloud Data Centres\public_html> [REDACTED]
```

The screenshot shows the Docker Desktop interface. A container named "my_site" is running, with port 8080 mapped to 80. The "Files" tab is selected, displaying the contents of the "/usr/local/apache2/htdocs" directory. The "index.html" file is shown in a detailed view, highlighting the "MODIFIED" status. The terminal window shows the command used to run the container:

```
PS C:\Users\qadeer\Desktop\4th Year\Semester 2\Cloud Data Centres> cd \public_html
PS C:\Users\qadeer\Desktop\4th Year\Semester 2\Cloud Data Centres\public_html> docker run -d --name my_site -p 8080:80 -v ..:/usr/local/apache2/htdocs/ httpd:2.4
8bdef7d4813d45e50f4c5d78ed14db50e0bd71de570bef0e335b20c64ca89
PS C:\Users\qadeer\Desktop\4th Year\Semester 2\Cloud Data Centres\public_html> ls
PS C:\Users\qadeer\Desktop\4th Year\Semester 2\Cloud Data Centres\public_html> [REDACTED]
```

Stop your container

The screenshot shows the Docker Desktop interface. On the left, a sidebar lists 'Containers', 'Images', 'Volumes', 'Builds', 'Docker Hub', 'Docker Scout', and 'Extensions'. The 'Containers' tab is selected, displaying a table of running containers. One container, 'my_site', is highlighted with a blue selection bar. A modal dialog box titled 'Delete container?' is open over the table, containing the message: 'The "my_site" container is selected for deletion. Any anonymous volumes associated with these containers are also deleted.' It includes 'Cancel' and 'Delete forever' buttons. The table headers are 'Name', 'Container ID', 'Image', 'Port(s)', 'CPU (%)', 'Last started', and 'Actions'. The table body shows several other containers like 'competent_northcutt', 'gallant_bassi', 'adoring_buck', and 'my_docker_app'. The bottom of the screen shows a terminal window with PowerShell commands related to the 'my_site' container.

Name	Container ID	Image	Port(s)	CPU (%)	Last started	Actions
competent_northcutt				0%	16 minutes ago	[Actions]
gallant_bassi				0%	15 minutes ago	[Actions]
adoring_buck				0%	13 minutes ago	[Actions]
my_site			8080:80	0%	6 minutes ago	[Actions]
my_docker_app				0%	9 days ago	[Actions]
overridethedefaultcmdandentrypointindocker -				0%	42 minutes ago	[Actions]

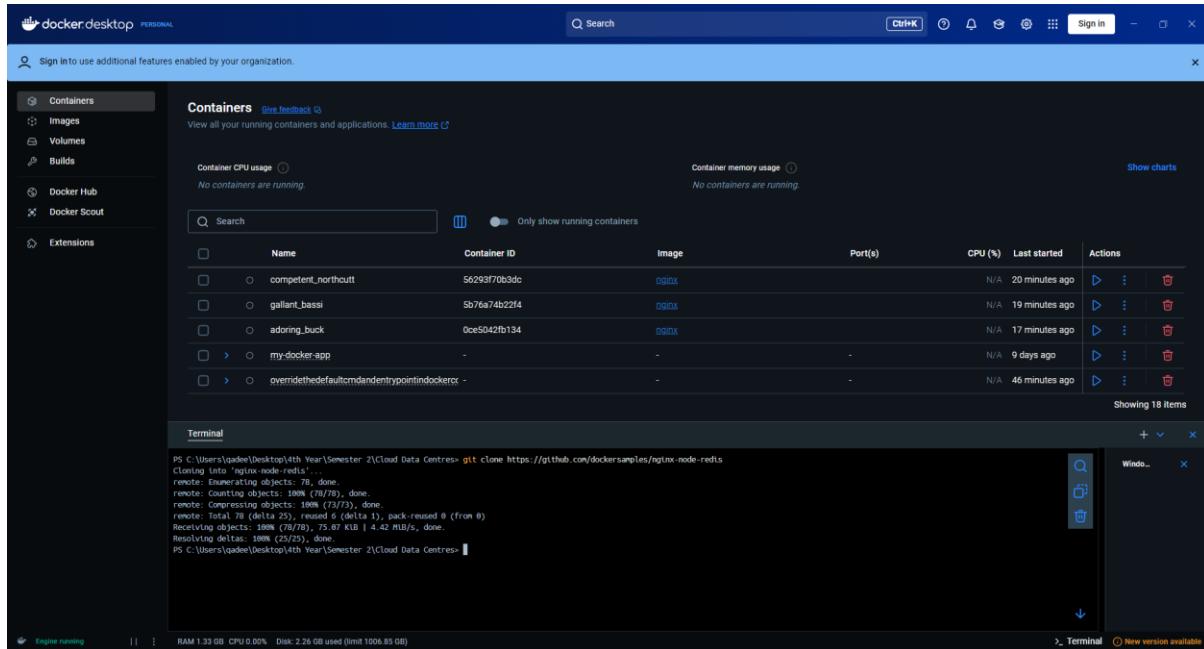
Terminal:

```
PS C:\Users\gadee\Desktop\4th Year\Semester 2\Cloud Data Centres> cd .\public_html
PS C:\Users\gadee\Desktop\4th Year\Semester 2\Cloud Data Centres\public_html> docker run -d --name my_site -p 8080:80 -v ./usr/local/apache2/htdocs/:/html:z
PS C:\Users\gadee\Desktop\4th Year\Semester 2\Cloud Data Centres\public_html> ls
PS C:\Users\gadee\Desktop\4th Year\Semester 2\Cloud Data Centres\public_html> [ ]
```

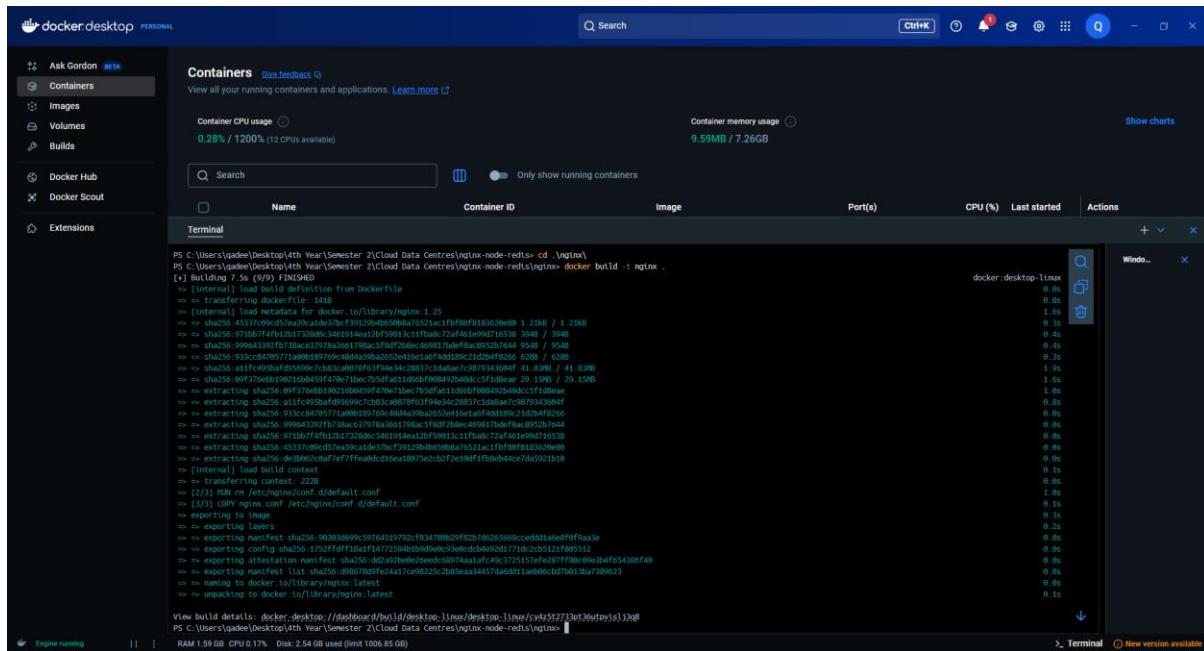
Multi-container applications

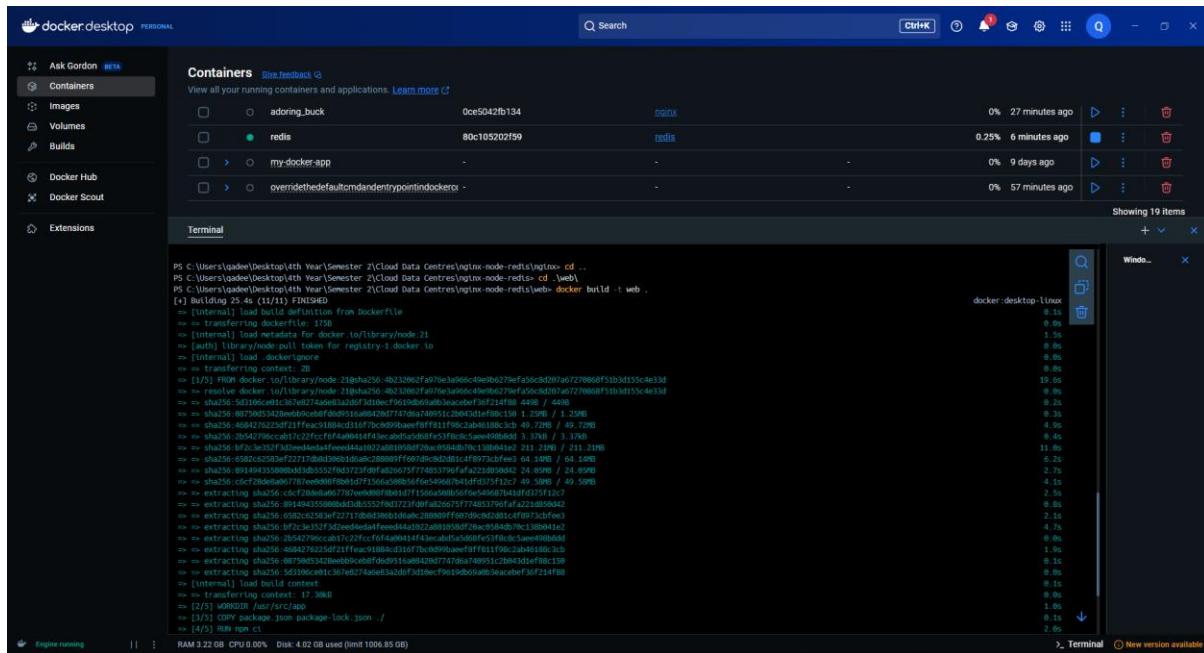
Try it out

Set up

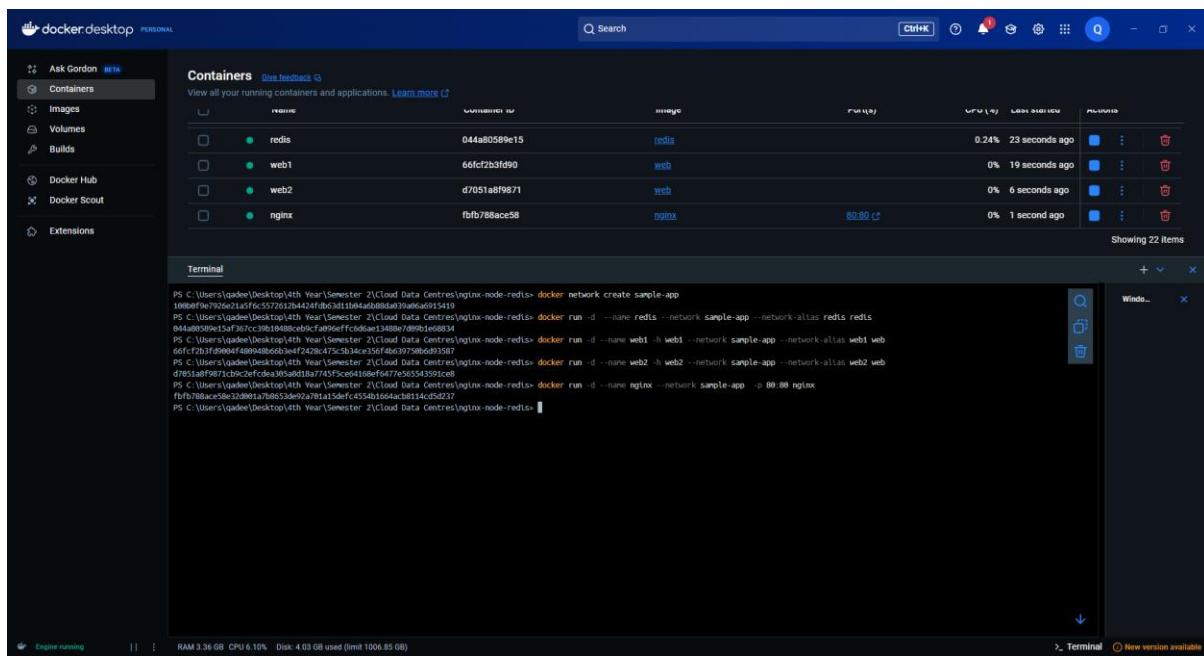


Build the image





Run the container





The Docker Desktop interface is shown. The left sidebar includes 'Ask Gordon', 'Containers' (selected), 'Images', 'Volumes', 'Builds', 'Docker Hub', 'Docker Scout', and 'Extensions'. The main area is titled 'Containers' with a 'Search' bar. It displays container usage (CPU 0.26%, Memory 91.48MB / 7.26GB) and a list of running containers:

Name	Container ID	Image	Port(s)	CPU (%)	Last started	Actions
adoring_buck	0ce5042fb134	redis		0%	34 minutes ago	[Edit, Stop, Delete]
redis	044a80509e15	redis		0.26%	1 minute ago	[Edit, Stop, Delete]
web1	66fc72b3fd90	web		0%	1 minute ago	[Edit, Stop, Delete]
web2	d7051a8f9871	web		0%	55 seconds ago	[Edit, Stop, Delete]
nginx	f8fb788ace58	nginx	80:80	0%	49 seconds ago	[Edit, Stop, Delete]

Below the table, it says 'Showing 22 items'. The terminal pane at the bottom shows the command history:

```
PS C:\Users\gdede\Desktop\Year\Semester 2\Cloud Data Centres\nginx-node-redis> docker run -d --name web1 -h web1 --network sample-app --network-alias web1 web
06fc72b3fd90: Pulling from library/web
4f7428c475c5b34c456f6b507940d9387
PS C:\Users\gdede\Desktop\Year\Semester 2\Cloud Data Centres\nginx-node-redis> docker run -d --name web2 -h web2 --network sample-app --network-alias web2 web
d7051a8f9871: Pulling from library/web
745fcaed419bfef477e565343991cc8
PS C:\Users\gdede\Desktop\Year\Semester 2\Cloud Data Centres\nginx-node-redis> docker run -d --name nginx --network sample-app -p 80:80 nginx
f8fb788ace58: Pulling from library/nginx
7b8533d927a71a1a5defc4554b164acbb14cd5d237
PS C:\Users\gdede\Desktop\Year\Semester 2\Cloud Data Centres\nginx-node-redis> docker ps
CONTAINER ID   IMAGE          COMMAND         STATUS        PORTS     NAMES
f8fb788ace58   "nginx"       "nginx"        Up 49 seconds ago          nginx
d7051a8f9871   "web"         "docker-entrypoint.s."
48 seconds ago   Up 48 seconds ago          0.0.0.0:80->80/tcp   web2
66fc72b3fd90   "web"         "docker-entrypoint.s."
About a minute ago Up About a minute ago          0.0.0.0:80->80/tcp   web1
044a80509e15   "redis"       "redis"        About a minute ago Up About a minute ago          6379/tcp    redis
PS C:\Users\gdede\Desktop\Year\Semester 2\Cloud Data Centres\nginx-node-redis>
```

The screenshot shows the Docker Desktop interface. On the left sidebar, there are links for Ask Gordon, Containers, Images, Volumes, Builds, Docker Hub, Docker Scout, and Extensions. The main area is titled "Containers" and shows five running containers: "adoring_buck", "redis", "web1", "web2", and "nginx". A modal window titled "Delete containers?" is open, listing the selected containers: "redis (container)", "web1 (container)", "web2 (container)", and "nginx (container)". Below the modal, a terminal window is open with the command "docker compose up -d --build" being run. The terminal output shows the creation of several Docker containers, including "nginx", "redis", "web1", and "web2".

Simplify the deployment using Docker Compose

This screenshot shows the Docker Desktop interface with a focus on the "Containers" section. It displays three containers: "my_docker_app", "overridethedefaultcmdandentrypointindocker", and "nginx-node-redis". A terminal window at the bottom is running the command "docker compose up -d --build". The terminal output shows the Docker Compose build process, including steps like "Building web", "Transferring dockerfile: 1MB", "Transferring context: 28", "Exporting layers", and "Exporting manifest". The progress bar on the right indicates the completion of the build.

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View all your running containers and applications. [Learn more](#)

Container CPU usage [Container memory usage](#) [show charts](#)

0.23% / 1200% (12 CPUs available) 106.94MB / 7.26GB

Search Only show running containers

Name	Container ID	Image	Port(s)	CPU (%)	Last started	Actions	
web1-1	c5722ac89ed	nginx-node-redis-web1	81:5000	0%	42 seconds ago		
web2-1	b7fb1333c41	nginx-node-redis-web2	82:5000	0%	42 seconds ago		
nginx-1	5483ab8d2926	nginx-node-redis-nginx	80:80	0%	41 seconds ago		
redis-1	3108ecc3e762	redis	6379:6379	0.23%	42 seconds ago		

Showing 23 items

Terminal

```
==> exporting layers
--> exporting manifest sha256:4137818940f9e027096421f9c5897fa3af2335:c5ff32d12596-f1fffc-f5d6
--> exporting config sha256:ae69d8a30ccca226ee0230d0943
--> exporting attestation manifest sha256:c4e5d5da3f7b099e6d4c171b1b851c697b737e1a6ea3391e41624e3636a975eb
--> exporting manifest list sha256:f3ec3251cc74116169d9a9e027f0d71b28f832263ab6db442e863eb496e1c
--> naming to docker://library/nginx-node-redis-nginx:latest
--> unpacking to docker://library/nginx-node-redis-nginx:latest
--> resolving provenance for metadata file
[+] Running 9/8
  ✓ nginx          Built
  ✓ web1          Built
  ✓ web2          Built
  ✓ Network nginx-node-redis_default Created
  ✓ Container nginx-node-redis-web2-1 Started
  ✓ Container nginx-node-redis-redis-1 Started
  ✓ Container nginx-node-redis-web1-1 Started
  ✓ Container nginx-node-redis-nginx-1 Started
PS C:\Users\qadeer\desktop\4th Semester 2\Cloud Data Centres\nginx-node-redis>
```

RAM 1.59 GB CPU 1.17% Disk 4.03 GB used (limit 1006.85 GB) > Terminal [New version available](#)

Containers [Give feedback](#)

View all your running containers and applications. [Learn more](#)

Container CPU usage [Container memory usage](#) [show charts](#)

0.26% / 1200% (12 CPUs available) 107.06MB / 7.26GB

Search Only show running containers

Name	Container ID	Image	Port(s)	CPU (%)	Last started	Actions		
my-docker-app	-	-	-	0%	1 minute ago			
overridethedefaultcmdandentrypointindockerrv	-	-	-	0%	1 hour ago			
nginx-node-redis	-	-	-	0.24%	1 minute ago			
web1-1	-	-	-	0%	1 minute ago			
web2-1	-	-	-	0.01%	1 minute ago			

Delete items?

The following items are selected for deletion:

- nginx-node-redis (compose stack)
- nginx-node-redis-web1-1 (container)
- nginx-node-redis-web2-1 (container)
- nginx-node-redis-nginx-1 (container)
- nginx-node-redis-redis-1 (container)

Selected 5 of 23

Terminal

```
==> exporting layers
--> exporting manifest sha256:4137818940f9e027096421f9c5897fa3af2335:c5ff32d12596-f1fffc-f5d6
--> exporting config sha256:ae69d8a30ccca226ee0230d0943
--> exporting attestation manifest sha256:c4e5d5da3f7b099e6d4c171b1b851c697b737e1a6ea3391e41624e3636a975eb
--> exporting manifest list sha256:f3ec3251cc74116169d9a9e027f0d71b28f832263ab6db442e863eb496e1c
--> naming to docker://library/nginx-node-redis-nginx:latest
--> unpacking to docker://library/nginx-node-redis-nginx:latest
--> resolving provenance for metadata file
[+] Running 8/8
  ✓ nginx          Built
  ✓ web1          Built
  ✓ web2          Built
  ✓ Network nginx-node-redis_default Created
  ✓ Container nginx-node-redis-web2-1 Started
  ✓ Container nginx-node-redis-redis-1 Started
  ✓ Container nginx-node-redis-web1-1 Started
  ✓ Container nginx-node-redis-nginx-1 Started
PS C:\Users\qadeer\desktop\4th Semester 2\Cloud Data Centres\nginx-node-redis>
```

RAM 1.59 GB CPU 0.17% Disk 4.03 GB used (limit 1006.85 GB) > Terminal [New version available](#)