

## 1-docker-run

docker run -d --name nfactorial-docker-run -p 9090:80 nginx:stable

docker ps

curl -i <http://localhost:9090>

docker stop nfactorial-docker-run

docker ps

curl -i <http://localhost:9090>

docker ps -a

```
tvli@Tatyanas-MacBook-Air ~ % docker run -d --name nfactorial-docker-run -p 9090:80 nginx:stable
2e35a7e025e6c4cd4a7872507d71fa9bd8e3fadc9c6a55d500d02fb16988e0fd
tvli@Tatyanas-MacBook-Air ~ % docker ps
CONTAINER ID   IMAGE      COMMAND                  CREATED        STATUS        PORTS        NAMES
2e35a7e025e6   nginx:stable  "/docker-entrypoint..."  21 seconds ago  Up 20 seconds  0.0.0.0:9090->80/tcp  nfactorial-docker-run
tvli@Tatyanas-MacBook-Air ~ % curl -i http://localhost:9090
HTTP/1.1 200 OK
Server: nginx/1.26.3
Date: Sun, 23 Feb 2025 17:17:06 GMT
Content-Type: text/html
Content-Length: 615
Last-Modified: Wed, 05 Feb 2025 11:07:30 GMT
Connection: Keep-alive
ETag: "67a34672-267"
Accept-Ranges: bytes

<!DOCTYPE html>
<html>
<head>
<title>Welcome to nginx!</title>
<style>
html { color-scheme: light dark; }
body { width: 35em; margin: 0 auto;
font-family: Tahoma, Verdana, Arial, sans-serif; }
</style>
</head>
<body>
<h1>Welcome to nginx!</h1>
<p>If you see this page, the nginx web server is successfully installed and
working. Further configuration is required.</p>

<p>For online documentation and support please refer to
<a href="http://nginx.org/">nginx.org</a>.<br/>
Commercial support is available at
<a href="http://nginx.com/">nginx.com</a>.</p>

<p><em>Thank you for using nginx.</em></p>
</body>
</html>
tvli@Tatyanas-MacBook-Air ~ % docker stop nfactorial-docker-run
nfactorial-docker-run
tvli@Tatyanas-MacBook-Air ~ % docker ps
CONTAINER ID   IMAGE      COMMAND                  CREATED        STATUS        PORTS        NAMES
tvli@Tatyanas-MacBook-Air ~ % curl -i http://localhost:9090
curl: (7) Failed to connect to localhost port 9090 after 0 ms: Couldn't connect to server
tvli@Tatyanas-MacBook-Air ~ % docker ps -a
CONTAINER ID   IMAGE      COMMAND                  CREATED        STATUS        PORTS        NAMES
2e35a7e025e6   nginx:stable  "/docker-entrypoint..."  6 minutes ago  Exited (0)    About a minute ago  nfactorial-docker-run
tvli@Tatyanas-MacBook-Air ~ %
```

## 2-docker-mount

curl -o index.html <https://www.nfactorial.school>

```
docker run -d \
  --name nfactorial-docker-mount \
  -p 9999:80 \
  -v /private/tmp/index.html:/usr/share/nginx/html/index.html \
  nginx:stable
```

docker ps

docker logs nfactorial-docker-mount

```
tvli@Tatyanas-MacBook-Air tmp % curl -o index.html https://www.nfactorial.school
% Total    % Received % Xferd  Average Speed   Time    Time     Time  Current
           Dload  Upload   Total   Spent    Left   Speed
100  986k    0  986k    0    0   646k    0 --:--:--  0:00:01 --:--:--  645k
tvli@Tatyanas-MacBook-Air tmp %
tvli@Tatyanas-MacBook-Air tmp % docker run -d \
  --name nfactorial-docker-mount \
  -p 9999:80 \
  -v /private/tmp/index.html:/usr/share/nginx/html/index.html \
  nginx:stable
1c93cc2ea441f7ed5c9d39668ed2eee47ed486a525261c6a8ffe0e5b61ea614d
tvli@Tatyanas-MacBook-Air tmp %
tvli@Tatyanas-MacBook-Air tmp % docker ps
CONTAINER ID   IMAGE      COMMAND                  CREATED        STATUS        PORTS                    NAMES
1c93cc2ea441   nginx:stable "/docker-entrypoint..." 14 seconds ago Up 14 seconds  0.0.0.0:9999->80/tcp     nfactorial-docker-mount
tvli@Tatyanas-MacBook-Air tmp %
tvli@Tatyanas-MacBook-Air tmp % docker logs nfactorial-docker-mount
/docker-entrypoint.sh: /docker-entrypoint.d/ is not empty, 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-envsubst-on-templates.sh
/docker-entrypoint.sh: Launching /docker-entrypoint.d/30-tune-worker-processes.sh
/docker-entrypoint.sh: Configuration complete; ready for start up
2025/02/24 12:16:49 [notice] 1#1: using the "epoll" event method
2025/02/24 12:16:49 [notice] 1#1: nginx/1.26.3
2025/02/24 12:16:49 [notice] 1#1: built by gcc 12.2.0 (Debian 12.2.0-14)
2025/02/24 12:16:49 [notice] 1#1: OS: Linux 6.12.5-linuxkit
2025/02/24 12:16:49 [notice] 1#1: getrlimit(RLIMIT_NOFILE): 1048576:1048576
2025/02/24 12:16:49 [notice] 1#1: start worker processes
2025/02/24 12:16:49 [notice] 1#1: start worker process 29
2025/02/24 12:16:49 [notice] 1#1: start worker process 30
2025/02/24 12:16:49 [notice] 1#1: start worker process 31
2025/02/24 12:16:49 [notice] 1#1: start worker process 32
2025/02/24 12:16:49 [notice] 1#1: start worker process 33
2025/02/24 12:16:49 [notice] 1#1: start worker process 34
2025/02/24 12:16:49 [notice] 1#1: start worker process 35
2025/02/24 12:16:49 [notice] 1#1: start worker process 36
tvli@Tatyanas-MacBook-Air tmp %
```

### **3-docker-exec**

```
docker run -d --name nfactorial-docker-exec -p 9898:80 nginx:stable
```

```
docker exec -it nfactorial-docker-exec bash
```

```
cd /usr/share/nginx/html/
```

```
cat index.html
```

```
cat << EOF > /usr/share/nginx/html/index.html  
<h1>Hello, from container!</h1>  
EOF
```

```
cat index.html
```

```
exit
```

```
curl localhost:9898
```

```
docker logs nfactorial-docker-exec
```

(SEE BELOW FOR SCREENSHOT OF ALL COMMANDS)

```

[tvli@Tatyanas-MacBook-Air tmp % docker run -d --name nfactorial-docker-exec -p 9898:80 nginx:stable
68a91193f8d378efddd5dd86ec593fd3190efbca50120af941792e8be4b11bcb
[tvli@Tatyanas-MacBook-Air tmp %
[tvli@Tatyanas-MacBook-Air tmp % docker exec -it nfactorial-docker-exec bash
[root@68a91193f8d3:/# cd /usr/share/nginx/html/
[root@68a91193f8d3:/usr/share/nginx/html#
[root@68a91193f8d3:/usr/share/nginx/html# cat index.html
<!DOCTYPE html>
<html>
<head>
<title>Welcome to nginx!</title>
<style>
html { color-scheme: light dark; }
body { width: 35em; margin: 0 auto;
font-family: Tahoma, Verdana, Arial, sans-serif; }
</style>
</head>
<body>
<h1>Welcome to nginx!</h1>
<p>If you see this page, the nginx web server is successfully installed and
working. Further configuration is required.</p>

<p>For online documentation and support please refer to
<a href="http://nginx.org/">nginx.org</a>.<br/>
Commercial support is available at
<a href="http://nginx.com/">nginx.com</a>.</p>

<p><em>Thank you for using nginx.</em></p>
</body>
</html>
root@68a91193f8d3:/usr/share/nginx/html# cat << EOF > /usr/share/nginx/html/index.html
<h1>Hello, from container!</h1>
EOF
root@68a91193f8d3:/usr/share/nginx/html# cat index.html
<h1>Hello, from container!</h1>
root@68a91193f8d3:/usr/share/nginx/html# exit
exit
[tvli@Tatyanas-MacBook-Air tmp % curl localhost:9898
<h1>Hello, from container!</h1>
[tvli@Tatyanas-MacBook-Air tmp % docker logs nfactorial-docker-exec
/docker-entrypoint.sh: /docker-entrypoint.d/ is not empty, 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-envsubst-on-templates.sh
/docker-entrypoint.sh: Launching /docker-entrypoint.d/30-tune-worker-processes.sh
/docker-entrypoint.sh: Configuration complete; ready for start up
2025/02/24 12:42:55 [notice] 1#1: using the "epoll" event method
2025/02/24 12:42:55 [notice] 1#1: nginx/1.26.3
2025/02/24 12:42:55 [notice] 1#1: built by gcc 12.2.0 (Debian 12.2.0-14)
2025/02/24 12:42:55 [notice] 1#1: OS: Linux 6.12.5-linuxkit
2025/02/24 12:42:55 [notice] 1#1: getrlimit(RLIMIT_NOFILE): 1048576:1048576
2025/02/24 12:42:55 [notice] 1#1: start worker processes
2025/02/24 12:42:55 [notice] 1#1: start worker process 29
2025/02/24 12:42:55 [notice] 1#1: start worker process 30
2025/02/24 12:42:55 [notice] 1#1: start worker process 31
2025/02/24 12:42:55 [notice] 1#1: start worker process 32
2025/02/24 12:42:55 [notice] 1#1: start worker process 33
2025/02/24 12:42:55 [notice] 1#1: start worker process 34
2025/02/24 12:42:55 [notice] 1#1: start worker process 35
2025/02/24 12:42:55 [notice] 1#1: start worker process 36
192.168.65.1 - - [24/Feb/2025:12:43:51 +0000] "GET / HTTP/1.1" 200 32 "-" "curl/8.7.1" "-"
tvli@Tatyanas-MacBook-Air tmp %

```