

## A2-Port Binding

```
PS Select root@ip-172-31-22-255:/home/ubuntu
Windows PowerShell
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Try the new cross-platform PowerShell https://aka.ms/pscore6

PS C:\Users\prati> ssh -i .\Downloads\linux123.pem ubuntu@52.90.148.5
The authenticity of host '52.90.148.5 (52.90.148.5)' can't be established.
ED25519 key fingerprint is SHA256:40/YGxWOWaReo+3+3awcD62KyzbM#Hq8rsUjmgW3ALK.
This host key is known by the following other names/addresses:
  C:\Users\prati/.ssh/known_hosts:1 18.212.229.90
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added '52.90.148.5' (ED25519) to the list of known hosts.
Welcome to Ubuntu 24.04.3 LTS (GNU/Linux 6.14.0-1012-aws x86_64)

 * Documentation: https://help.ubuntu.com
 * Management: https://landscape.canonical.com
 * Support: https://ubuntu.com/pro

System information as of Wed Oct  1 05:05:18 UTC 2025

System load: 0.08      Processes:          116
Usage of /: 56.7% of 6.71GB  Users logged in:        1
Memory usage: 25%           IPv4 address for enX0: 172.31.22.255
Swap usage:  0%

Expanded Security Maintenance for Applications is not enabled.

23 updates can be applied immediately.
11 of these updates are standard security updates.
To see these additional updates run: apt list --upgradable

1 additional security update can be applied with ESM Apps.
Learn more about enabling ESM Apps service at https://ubuntu.com/esm

The list of available updates is more than a week old.
To check for new updates run: sudo apt update

last login: Wed Oct  8 16:02:45 2025 from 42.104.226.120
ubuntu@ip-172-31-22-255: ~ $ sudo su
root@ip-172-31-22-255:/home/ubuntu# docker run -d -e MYSQL_ROOT_PASSWORD=pratik01 -p 3306:3306 --name mysqlcont mysql
6ed979ae106dd81b88e8db0ee44845b0daa19963e45144d5d532079edf7ab52
root@ip-172-31-22-255:/home/ubuntu#
```

```
PS Select root@ip-172-31-22-255:/home/ubuntu
Last login: Wed Oct  8 16:02:45 2025 from 42.104.226.120
ubuntu@ip-172-31-22-255: ~ $ sudo su
root@ip-172-31-22-255:/home/ubuntu# docker run -d -e MYSQL_ROOT_PASSWORD=pratik01 -p 3306:3306 --name mysqlcont mysql
6ed979ae106dd81b88e8db0ee44845b0daa19963e45144d5d532079edf7ab52
root@ip-172-31-22-255:/home/ubuntu# root@ip-172-31-22-255:/home/ubuntu# docker ps
CONTAINER ID IMAGE COMMAND CREATED STATUS PORTS NAMES
6ed979ae106d mysql "docker-entrypoint.s..." 51 seconds ago Up 50 seconds 0.0.0.0:3306->3306/tcp, :::3306->3306/tcp, 33060/tcp mysqlcont
root@ip-172-31-22-255:/home/ubuntu# docker exec -it mysqlcont
"docker exec" requires at least 2 arguments.
See 'docker exec --help'.

Usage: docker exec [OPTIONS] CONTAINER COMMAND [ARG...]

Execute a command in a running container
root@ip-172-31-22-255:/home/ubuntu# docker client loop: ssh_packet_write_poll: Connection to 52.90.148.5 port 22: Connection aborted
PS C:\Users\prati> ssh -i .\Downloads\linux123.pem ubuntu@52.90.148.5
Welcome to Ubuntu 24.04.3 LTS (GNU/Linux 6.14.0-1012-aws x86_64)

 * Documentation: https://help.ubuntu.com
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System information as of Thu Oct 23 06:25:01 UTC 2025

System load: 0.0      Processes:          123
Usage of /: 59.9% of 6.71GB  Users logged in:        1
Memory usage: 70%           IPv4 address for enX0: 172.31.22.255
Swap usage:  0%

Expanded Security Maintenance for Applications is not enabled.

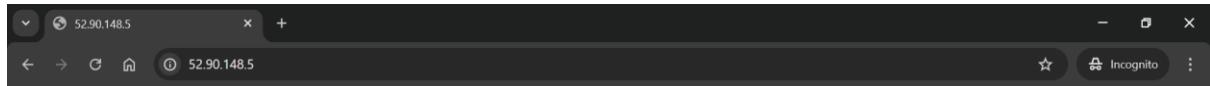
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```
>Select root@ip-172-31-22-255:/home/ubuntu
Database changed
mysql> create table t1(id int,name varchar(10));
Query OK, 0 rows affected (0.031 sec)

mysql> ext
-> exit;
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use near 'exit'
exit' at line 1
mysql> exit;
Bye
bash-5.1# exit
exit
root@ip-172-31-22-255:/home/ubuntu# docker run -d -p 80:80 --name mynginxserver nginx
77148d65c2dd428cf3dc87a224736439d404cd459b0615fd07887a1a2203
root@ip-172-31-22-255:/home/ubuntu# docker ps
CONTAINER ID IMAGE COMMAND CREATED STATUS PORTS NAMES
77148d65c2dd nginx "/docker-entrypoint..." 15 seconds ago Up 14 seconds 0.0.0.0:80->80/tcp, :::80->80/tcp mynginxserver
root@79ae106d mysql "docker-entrypoint.s..." 23 minutes ago Up 23 minutes 0.0.0.0:3306->3306/tcp, :::3306->3306/tcp, 33060/tcp mysqlcont
root@ip-172-31-22-255:/home/ubuntu# docker exec -it mynginxserver bash
root@77148d65c2dd:# ls
bin boot dev docker-entrypoint.d docker-entrypoint.sh etc home lib lib64 media mnt opt proc root run sbin srv sys tmp usr var
root@77148d65c2dd:# cd /user/share/nginx/html
bash: cd: /user/share/nginx/html: No such file or directory
root@77148d65c2dd:# ls
root@77148d65c2dd:# ls
bin boot dev docker-entrypoint.d docker-entrypoint.sh etc home lib lib64 media mnt opt proc root run sbin srv sys tmp usr var
root@77148d65c2dd:# cd /user/share/nginx/html
bash: cd: /user/share/nginx/html: No such file or directory
root@77148d65c2dd:# cd /user/prati/nginx/html
bash: cd: /user/prati/nginx/html: No such file or directory
root@77148d65c2dd:# cd /usr/prati/nginx/html
bash: cd: /usr/prati/nginx/html: No such file or directory
root@77148d65c2dd:# cd /usr/share/nginx/html
root@77148d65c2dd:# /usr/share/nginx/html
root@77148d65c2dd:# /usr/share/nginx/html ls
50x.html index.html
root@77148d65c2dd:# /usr/share/nginx/html
root@77148d65c2dd:# /usr/share/nginx/html echo "Hello from nginx server!!" > index.html
echo "Hello from nginx server!!" > index.html
root@77148d65c2dd:# /usr/share/nginx/html
root@77148d65c2dd:# /usr/share/nginx/html cat index.html
Hello from nginx server!!
root@77148d65c2dd:# /usr/share/nginx/html# curl http://localhost:80
Hello from nginx server!!
```



Hello from nginx server!!