

## [Screen shot [#1]]

us-east-1.console.aws.amazon.com/ec2/home?region=us-east-1#instances:instanceState=running

EC2 > Instances

Dashboard  
EC2 Global View  
Events

▼ Instances

Instances  
Instance Types  
Launch Templates  
Spot Requests  
Savings Plans  
Reserved Instances  
Dedicated Hosts  
Capacity Reservations

▼ Images

AMIs  
AMI Catalog

▼ Elastic Block Store

Volumes  
Snapshots  
Lifecycle Manager

▼ Network & Security

Security Groups  
Elastic IPs  
Placement Groups

CloudShell Feedback

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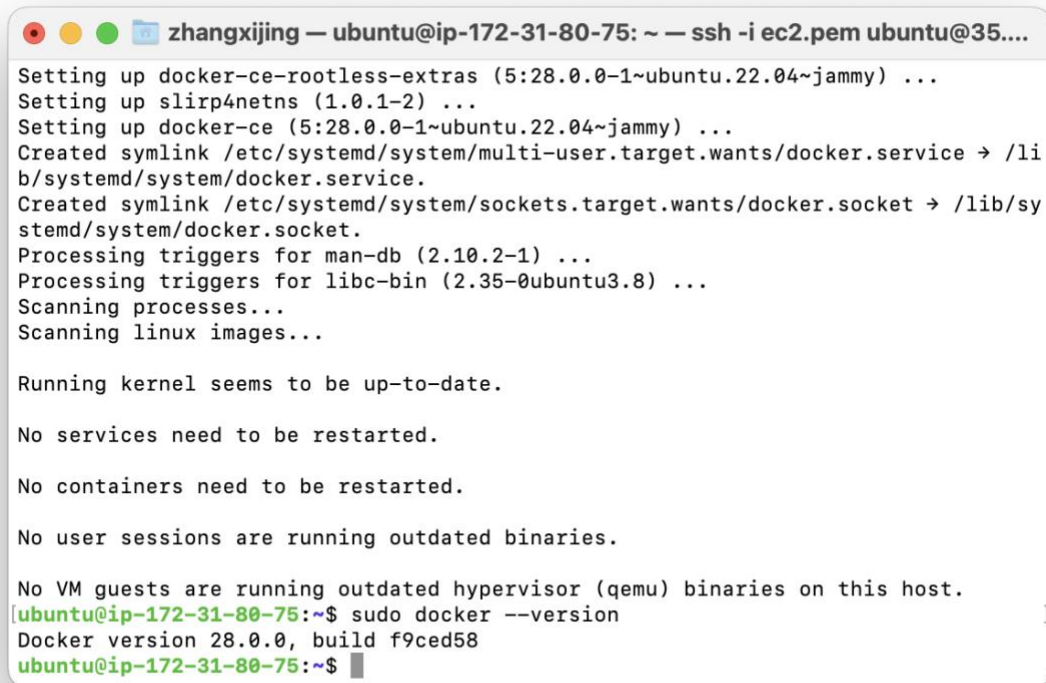
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**Screenshot 1:** Displays the EC2 instance details, including the instance type (m5.large) and the configured EBS storage.

Note: The AWS Academy doesn't allow me to create an m5.large instance, so I use t2.micro to complete the assignment.

## [Screen shot [#2]]



```
zhangxijing — ubuntu@ip-172-31-80-75: ~ — ssh -i ec2.pem ubuntu@35...
Setting up docker-ce-rootless-extras (5:28.0.0-1~ubuntu.22.04~jammy) ...
Setting up slirp4netns (1.0.1-2) ...
Setting up docker-ce (5:28.0.0-1~ubuntu.22.04~jammy) ...
Created symlink /etc/systemd/system/multi-user.target.wants/docker.service → /lib/systemd/system/docker.service.
Created symlink /etc/systemd/system/sockets.target.wants/docker.socket → /lib/systemd/system/docker.socket.
Processing triggers for man-db (2.10.2-1) ...
Processing triggers for libc-bin (2.35-0ubuntu3.8) ...
Scanning processes...
Scanning linux images...

Running kernel seems to be up-to-date.

No services need to be restarted.

No containers need to be restarted.

No user sessions are running outdated binaries.

No VM guests are running outdated hypervisor (qemu) binaries on this host.
ubuntu@ip-172-31-80-75:~$ sudo docker --version
Docker version 28.0.0, build f9ced58
ubuntu@ip-172-31-80-75:~$
```

**Screenshot 2:** Shows the successful installation of Docker on the Ubuntu system, verifying the Docker version.

### [Screen shot [#3]

```
zhangxijing — ubuntu@ip-172-31-80-75: ~ — ssh -i ec2.pem ubuntu@35...

Running kernel seems to be up-to-date.

No services need to be restarted.

No containers need to be restarted.

No user sessions are running outdated binaries.

No VM guests are running outdated hypervisor (qemu) binaries on this host.
[ubuntu@ip-172-31-80-75:~$ sudo docker --version
]
Docker version 28.0.0, build f9ced58
ubuntu@ip-172-31-80-75:~$ sudo curl -L "https://github.com/docker/compose/releases/latest/download/docker-compose-$(uname -s)-$(uname -m)" -o /usr/local/bin/docker-compose
% Total    % Received % Xferd  Average Speed   Time    Time     Time  Current
           %             %         Dload  Upload   Total   Spent    Left   Speed
  0     0    0     0    0     0      0      0  --:--:-- --:--:-- --:--:--     0
  0     0    0     0    0     0      0      0  --:--:-- --:--:-- --:--:--     0
100 70.2M 100 70.2M    0     0  73.9M      0  --:--:-- --:--:-- --:--:--  73.9M
ubuntu@ip-172-31-80-75:~$ sudo chmod +x /usr/local/bin/docker-compose
ubuntu@ip-172-31-80-75:~$ docker-compose --version
Docker Compose version v2.33.1
ubuntu@ip-172-31-80-75:~$
```

**Screenshot 3:** Confirms that Docker Compose is installed correctly by showing its version output.

## [Screen shot [#4]]

```
zhangxijing — ubuntu@ip-172-31-80-75: ~/docker-web-mysql-app — ssh -i ec2.pem ubuntu@35.174.139.214 — 168x24

✓ 6b95a940e7b6 Pull complete 8.0s
✓ 90986bb8de6e Pull complete 8.1s
✓ ae71319cb779 Pull complete 9.8s
✓ ffc89e9dfd88 Pull complete 9.9s
✓ 43d05e938198 Pull complete 15.3s
✓ 064b2d298fba Pull complete 15.3s
✓ df9a4d85569b Pull complete 15.4s
✓ web Pulled 10.0s
✓ c29f5b76f736 Pull complete 4.6s
✓ e19db8451adb Pull complete 9.2s
✓ 24ff42a8b907 Pull complete 9.2s
✓ c558df217949 Pull complete 9.3s
✓ 976e8f6b25dd Pull complete 9.4s
✓ 6c78b0ba1a32 Pull complete 9.4s
✓ 84cade77a831 Pull complete 9.5s

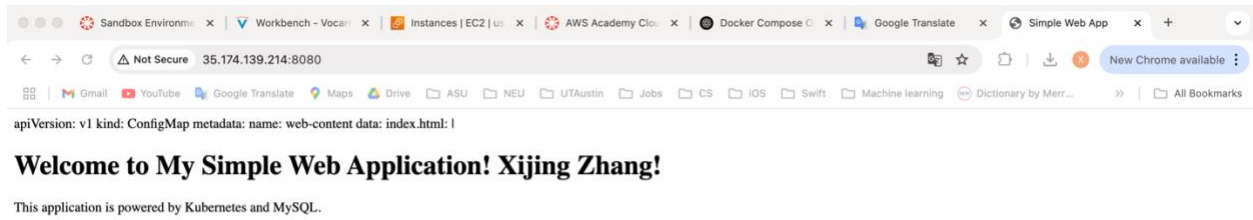
[+] Running 3/3
✓ Network docker-web-mysql-app_default Created 0.1s
✓ Container docker-web-mysql-app-db-1 Started 0.8s
✓ Container docker-web-mysql-app-web-1 Started 0.8s

ubuntu@ip-172-31-80-75:~/docker-web-mysql-app$ sudo docker ps
CONTAINER ID   IMAGE          COMMAND                  CREATED        STATUS        PORTS                               NAMES
5ee58e9448f9   nginx:latest   "/docker-entrypoint..." 22 seconds ago Up 22 seconds 0.0.0.0:8080->80/tcp, [::]:8080->80/tcp docker-web-mysql-app-web-1
a650a579303e   mysql:5.7      "docker-entrypoint.s..." 22 seconds ago Up 22 seconds 3306/tcp, 33060/tcp              docker-web-mysql-app-db-1

ubuntu@ip-172-31-80-75:~/docker-web-mysql-app$
```

**Screenshot 4:** Illustrates that the Docker containers for Nginx (web) and MySQL (db) are running as expected.

## [Screen shot [#5]]



**Screenshot 5:** Demonstrates the web application in a browser, including the public IP address and the custom HTML content with your name.

## [Screen shot [#6]]

```
zhangxijing — ubuntu@ip-172-31-80-75: ~/docker-web-mysql-app — ssh -i ec2.pem ubuntu@35.174.139.214 — 168x24
data:
index.html: |
<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="UTF-8">
<meta name="viewport" content="width=device-width, initial-scale=1.0">
<title>Simple Web App</title>
</head>
<body>
<h1>Welcome to My Simple Web Application! Xijing Zhang!</h1>
<p>This application is powered by Kubernetes and MySQL.</p>
</body>
</html>
* Connection #0 to host 35.174.139.214 left intact
ubuntu@ip-172-31-80-75:~/docker-web-mysql-app$ sudo docker-compose down
WARN[0000] /home/ubuntu/docker-web-mysql-app/docker-compose.yml: the attribute 'version' is obsolete, it will be ignored, please remove it to avoid potential confusion
[+] Running 3/3
  ✓ Container docker-web-mysql-app-db-1   Removed    1.8s
  ✓ Container docker-web-mysql-app-web-1  Removed    0.2s
  ✓ Network docker-web-mysql-app_default  Removed    0.1s
ubuntu@ip-172-31-80-75:~/docker-web-mysql-app$ sudo docker ps
CONTAINER ID   IMAGE     COMMAND   CREATED   STATUS    PORTS   NAMES
ubuntu@ip-172-31-80-75:~/docker-web-mysql-app$
```

**Screenshot 6:** Confirms that after stopping the containers with `docker-compose down`, no Docker containers are running.