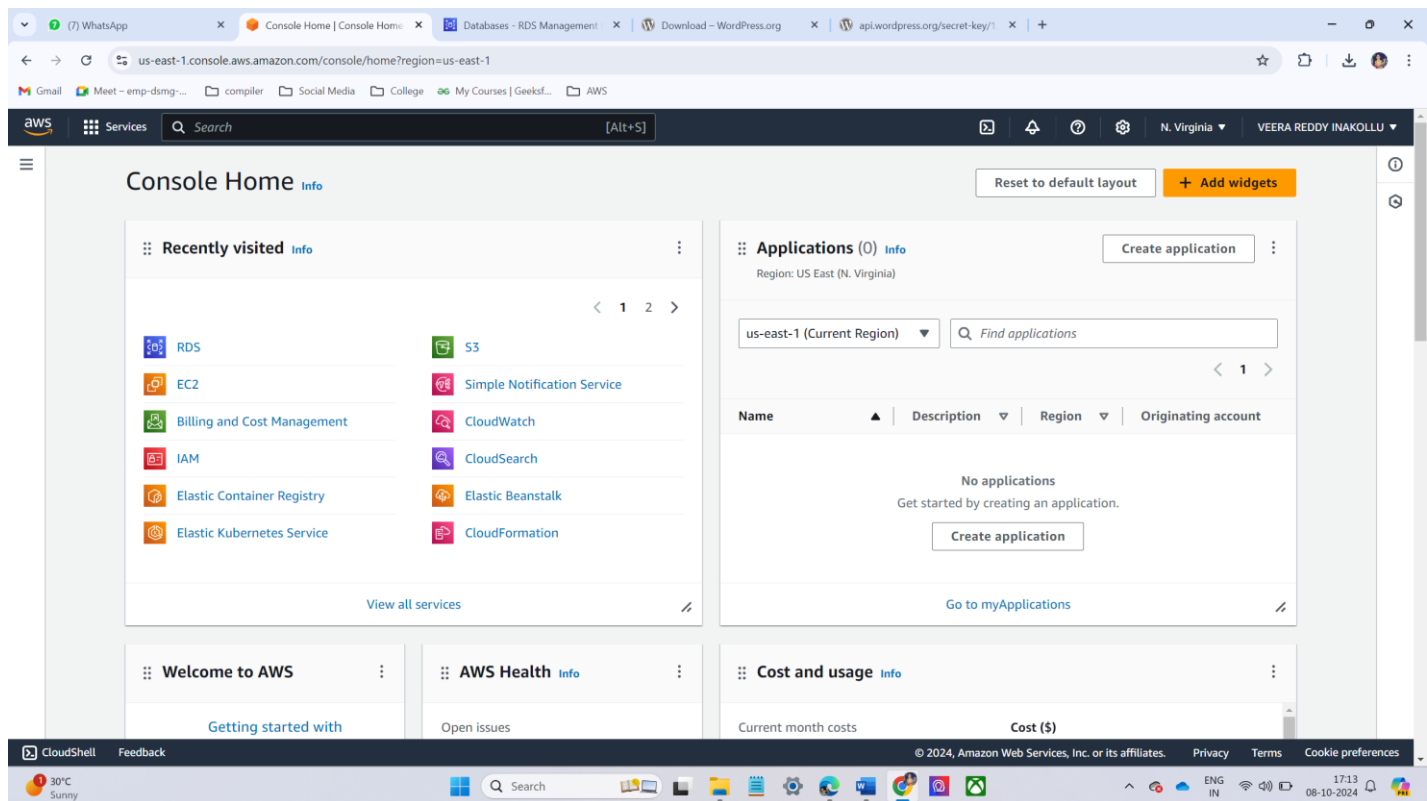
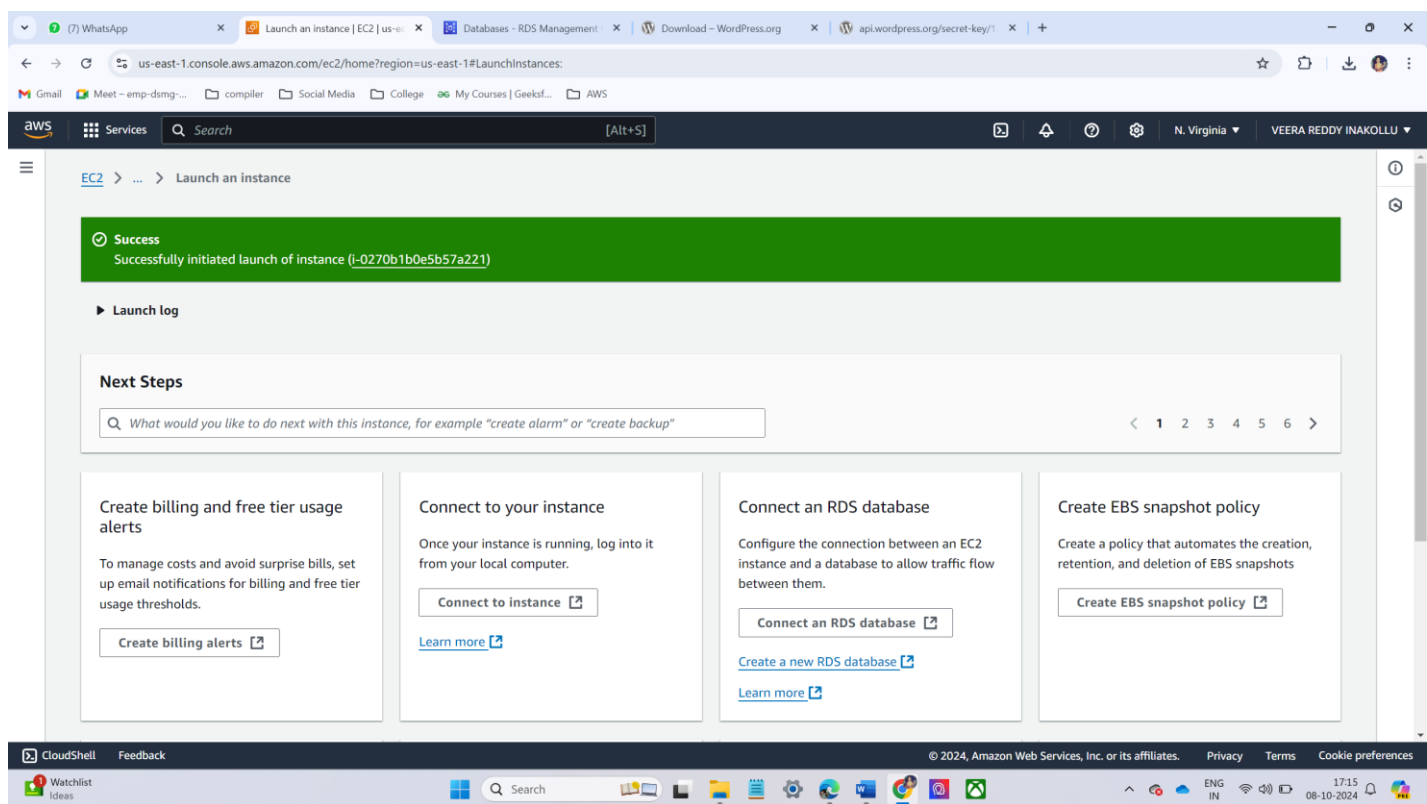


## Deploy WordPress web application by using docker compose file

- ◆ First login to the aws account with credentials.



- ◆ Launch the instance allow port 80 and 22.



- ◆ Connect instance to the gitbash and install git and docker

```
ec2-user@ip-172-31-32-207:~$ sudo yum install docker
Installing:
docker                                x86_64                                25.0.6-1.amzn2.0.2                amzn2extra-docker                45 M
Installing for dependencies:
containerd                            x86_64                                1.7.22-1.amzn2.0.2                amzn2extra-docker                30 M
libcgroup                             x86_64                                0.41-21.amzn2                     amzn2-core                       66 k
pigz                                   x86_64                                2.3.4-1.amzn2.0.1                 amzn2-core                       81 k
runc                                   x86_64                                1.1.13-1.amzn2                     amzn2extra-docker                3.1 M

Transaction Summary
=====
Install 1 Package (+4 Dependent packages)

Total download size: 78 M
Installed size: 285 M
Is this ok [y/d/N]: y
Downloading packages:
(1/5): libcgroup-0.41-21.amzn2.x86_64.rpm | 66 kB 00:00:00
(2/5): pigz-2.3.4-1.amzn2.0.1.x86_64.rpm | 81 kB 00:00:00
(3/5): containerd-1.7.22-1.amzn2.0.2.x86_64.rpm | 30 MB 00:00:00
(4/5): docker-25.0.6-1.amzn2.0.2.x86_64.rpm | 45 MB 00:00:00
(5/5): runc-1.1.13-1.amzn2.x86_64.rpm | 3.1 MB 00:00:00
-----
Total | 86 MB/s | 78 MB 00:00:00
Running transaction check
Running transaction test
Transaction test succeeded
Running transaction
  Installing : runc-1.1.13-1.amzn2.x86_64                1/5
  Installing : containerd-1.7.22-1.amzn2.0.2.x86_64      2/5
  Installing : libcgroup-0.41-21.amzn2.x86_64           3/5
  Installing : pigz-2.3.4-1.amzn2.0.1.x86_64            4/5
  Installing : docker-25.0.6-1.amzn2.0.2.x86_64         5/5
  Verifying   : runc-1.1.13-1.amzn2.x86_64              1/5
  Verifying   : docker-25.0.6-1.amzn2.0.2.x86_64       2/5
  Verifying   : pigz-2.3.4-1.amzn2.0.1.x86_64          3/5
  Verifying   : containerd-1.7.22-1.amzn2.0.2.x86_64   4/5
  Verifying   : libcgroup-0.41-21.amzn2.x86_64         5/5

Installed:
docker.x86_64 0:25.0.6-1.amzn2.0.2

Dependency Installed:
containerd.x86_64 0:1.7.22-1.amzn2.0.2          libcgroup.x86_64 0:0.41-21.amzn2          pigz.x86_64 0:2.3.4-1.amzn2.0.1          runc.x86_64 0:1.1.13-1.amzn2

Complete!
[ec2-user@ip-172-31-32-207 ~]$ |
```

- ◆ Now give permissions to limited Linux user account to docker group by using command `sudo chmod 666 /var/run/docker.sock`

```
ec2-user@ip-172-31-32-207:~$ sudo yum install docker
Installing : containerd-1.7.22-1.amzn2.0.2.x86_64                2/5
Installing : libcgroup-0.41-21.amzn2.x86_64                    3/5
Installing : pigz-2.3.4-1.amzn2.0.1.x86_64                    4/5
Installing : docker-25.0.6-1.amzn2.0.2.x86_64                5/5
Verifying   : runc-1.1.13-1.amzn2.x86_64                    1/5
Verifying   : docker-25.0.6-1.amzn2.0.2.x86_64              2/5
Verifying   : pigz-2.3.4-1.amzn2.0.1.x86_64                  3/5
Verifying   : containerd-1.7.22-1.amzn2.0.2.x86_64          4/5
Verifying   : libcgroup-0.41-21.amzn2.x86_64                5/5

Installed:
docker.x86_64 0:25.0.6-1.amzn2.0.2

Dependency Installed:
containerd.x86_64 0:1.7.22-1.amzn2.0.2          libcgroup.x86_64 0:0.41-21.amzn2          pigz.x86_64 0:2.3.4-1.amzn2.0.1          runc.x86_64 0:1.1.13-1.amzn2

Complete!
[ec2-user@ip-172-31-32-207 ~]$ sudo chmod 666 /var/run/docker.sock
chmod: cannot access '/var/run/docker.sock': No such file or directory
[ec2-user@ip-172-31-32-207 ~]$ sudo systemctl start docker
[ec2-user@ip-172-31-32-207 ~]$ sudo systemctl enable docker
Created symlink from /etc/systemd/system/multi-user.target.wants/docker.service to /usr/lib/systemd/system/docker.service.
[ec2-user@ip-172-31-32-207 ~]$ sudo systemctl status docker
[ec2-user@ip-172-31-32-207 ~]$ sudo systemctl status docker
● docker.service - Docker Application Container Engine
   Loaded: loaded (/usr/lib/systemd/system/docker.service; enabled; vendor preset: disabled)
   Active: active (running) since Tue 2024-10-08 11:49:22 UTC; 18s ago
     Docs: https://docs.docker.com
   Main PID: 3519 (dockerd)
    CGroup: /system.slice/docker.service
            └─3519 /usr/bin/dockerd -H fd:// --containerd=/run/containerd/containerd.sock --default-ulimit nofile=32768:65536

Oct 08 11:49:21 ip-172-31-32-207.ec2.internal systemd[1]: Starting Docker Application Container Engine...
Oct 08 11:49:21 ip-172-31-32-207.ec2.internal dockerd[3519]: time="2024-10-08T11:49:21.801616270Z" level=info msg="Starting up"
Oct 08 11:49:21 ip-172-31-32-207.ec2.internal dockerd[3519]: time="2024-10-08T11:49:21.848651512Z" level=info msg="Loading containers: start."
Oct 08 11:49:22 ip-172-31-32-207.ec2.internal dockerd[3519]: time="2024-10-08T11:49:22.072520665Z" level=info msg="Loading containers: done."
Oct 08 11:49:22 ip-172-31-32-207.ec2.internal dockerd[3519]: time="2024-10-08T11:49:22.086772937Z" level=warning msg="WARNING: bridge-nf-call-iptables is disabled"
Oct 08 11:49:22 ip-172-31-32-207.ec2.internal dockerd[3519]: time="2024-10-08T11:49:22.087196159Z" level=warning msg="WARNING: bridge-nf-call-ip6tables is disabled"
Oct 08 11:49:22 ip-172-31-32-207.ec2.internal dockerd[3519]: time="2024-10-08T11:49:22.087529464Z" level=info msg="Docker daemon" commit=b08a51f containerd-snapshotter...on=25.0.6
Oct 08 11:49:22 ip-172-31-32-207.ec2.internal dockerd[3519]: time="2024-10-08T11:49:22.087950413Z" level=info msg="Daemon has completed initialization"
Oct 08 11:49:22 ip-172-31-32-207.ec2.internal dockerd[3519]: time="2024-10-08T11:49:22.130317891Z" level=info msg="API listen on /run/docker.sock"
Oct 08 11:49:22 ip-172-31-32-207.ec2.internal systemd[1]: Started Docker Application Container Engine.
Hint: Some lines were ellipsized, use -l to show in full.
[ec2-user@ip-172-31-32-207 ~]$ sudo chmod 666 /var/run/docker.sock
docker.pid  docker.sock
[ec2-user@ip-172-31-32-207 ~]$ sudo chmod 666 /var/run/docker.sock
[ec2-user@ip-172-31-32-207 ~]$
```

- ◆ Now start and enable the docker.





```
version: '3.3'

services:
  db:
    image: mysql:8.0.19
    command: '--default-authentication-plugin=mysql_native_password'
    volumes:
      - db_data:/var/lib/mysql
    restart: always
    environment:
      - MYSQL_ROOT_PASSWORD=wordpress
      - MYSQL_DATABASE=veera
      - MYSQL_USER=reddy
      - MYSQL_PASSWORD=susmitha

  wordpress:
    image: wordpress:latest
    ports:
      - "80:80"
    restart: always
    environment:
      - WORDPRESS_DB_HOST=db
      - WORDPRESS_DB_USER=reddy
      - WORDPRESS_DB_PASSWORD=susmitha
      - WORDPRESS_DB_NAME=veera

volumes:
  db_data:
```

- ◆ Now to pull the image of MySQL and WordPress. We have executed the create docker compose. yaml by using the command <docker-compose up -d>

```
[ec2-user@ip-172-31-32-207 ~]$ sudo chmod +x /usr/local/bin/docker-compose
[ec2-user@ip-172-31-32-207 ~]$ sudo systemctl enable docker
[ec2-user@ip-172-31-32-207 ~]$ ln -s /usr/local/bin/docker-compose /usr/bin/docker-compose
ln: failed to create symbolic link '/usr/bin/docker-compose': Permission denied
[ec2-user@ip-172-31-32-207 ~]$ sudo ln -s /usr/local/bin/docker-compose /usr/bin/docker-compose
[ec2-user@ip-172-31-32-207 ~]$ sudo vi docker-compose.yaml
[New] 29L, 590B written
[ec2-user@ip-172-31-32-207 ~]$ docker-compose up -d
WARN[0000] /home/ec2-user/docker-compose.yaml: the attribute 'version' is obsolete, it will be ignored, please remove it to avoid potential confusion
[+] Running 31/35
  ⬇️ wordpress [=====] 216.4MB / 245.9MB Pulling
    ✓ 302e3ee49805 Pull complete
    ✓ 07fc0809b857 Pull complete
    ⬇️ 141aa7d58c57 Extracting [=====] 89.69MB/104.3MB
    ✓ 2720d4bca8b3 Download complete
    ✓ 82deca51468c Download complete
    ✓ dec741dfa526 Download complete
    ✓ e204b0efab94 Download complete
    ✓ 0a9b8825ee85 Download complete
    ✓ ef45e9da2633 Download complete
    ✓ f2b46378d521 Download complete
    ✓ 5c104459ddad Download complete
    ✓ 282db878d4dd Download complete
    ✓ 4a1f827cc210 Download complete
    ✓ 16a0d4b041d6 Download complete
    ✓ 5aae6c13158b Download complete
    ✓ aafb1127210 Download complete
    ✓ fae7038f494a Download complete
    ✓ 4306628e8a77 Download complete
    ✓ 5d2474f1d0a5 Download complete
    ✓ 5e101cb8455d Download complete
    ✓ 5db2b012f33a Download complete
  ⬇️ db [=====] 152.1MB / 159.1MB Pulling
    ✓ 54fec2fa59d0 Pull complete
    ✓ bcc6c6145912 Pull complete
    ✓ 951c3d959c9d Pull complete
    ✓ 05de4d0e206e Pull complete
    ✓ 319f0394ef42 Pull complete
    ✓ d9185034607b Pull complete
    ✓ 013a9c64dad3 Pull complete
    ✓ 96d4c3d31f9f Pull complete
    ⬇️ 785bc90808da Extracting [=====] 60.16MB/113MB
    ✓ 1339cf094729 Download complete
    ✓ beb8f531cc37 Download complete
    ✓ 2b40c9f6a918 Download complete
```

- ◆ Now see the container of the pulled images of mysql and WordPress by using command docker ps



```
[+] Running 35/35
✓wordpress Pulled
✓302e3ee49805 Pull complete
✓07fc0890b857 Pull complete
✓141aa7d58c57 Pull complete
✓2720d4bca8b3 Pull complete
✓82deca51468c Pull complete
✓dec741dfa526 Pull complete
✓e204b0efab94 Pull complete
✓8a9b8825ee85 Pull complete
✓ef45e9da2633 Pull complete
✓f2b46378d521 Pull complete
✓5c104459ddad Pull complete
✓282db878d4dd Pull complete
✓4a1f827cc210 Pull complete
✓16a044b841d6 Pull complete
✓5aae6c13158b Pull complete
✓aafbf1137210 Pull complete
✓fae7038f494a Pull complete
✓4306628e8a77 Pull complete
✓5d2474f1d0a5 Pull complete
✓5e101cb8455d Pull complete
✓5db2b012f33a Pull complete
✓db Pulled
✓54fec2fa59d0 Pull complete
✓bcc6c6145912 Pull complete
✓951c3d959c9d Pull complete
✓05de4d0e206e Pull complete
✓319f0394ef42 Pull complete
✓d9185034607b Pull complete
✓013a9c64dadc Pull complete
✓96d4c3d31f9f Pull complete
✓785bc90808da Pull complete
✓1339cf094729 Pull complete
✓beb8f531cc37 Pull complete
✓2b40c9f6a918 Pull complete

[+] Running 4/4
✓Network ec2-user_default Created
✓Volume "ec2-user_db_data" Created
✓Container ec2-user-wordpress-1 Started
✓Container ec2-user-db-1 Started

[ec2-user@ip-172-31-32-207 ~]$ docker ps
CONTAINER ID   IMAGE          COMMAND                  CREATED        STATUS        PORTS                               NAMES
0742d1b9a88a   wordpress:late "docker-entrypoint.s..." 40 seconds ago Up 38 seconds 0.0.0.0:80->80/tcp, :::80->80/tcp  ec2-user-wordpress-1
dc8a2b6b301f   mysql:8.0.19   "docker-entrypoint.s..." 40 seconds ago Up 38 seconds 3306/tcp, 33060/tcp             ec2-user-db-1

[ec2-user@ip-172-31-32-207 ~]$
```

