

```

Debian GNU/Linux 12 d12 tty1
d12 login: alu
Password:
Linux d12 6.1.0-13-amd64 #1 SMP PREEMPT_DYNAMIC Debian 6.1.55-1 (2023-09-29) x86_64

The programs included with the Debian GNU/Linux system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*copyright.

Debian GNU/Linux comes with ABSOLUTELY NO WARRANTY, to the extent
permitted by applicable law.
Last login: Thu Nov  9 09:51:51 CET 2023 on tty1
alu@d12:~$ ip a
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN group default qlen 1000
    link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00
        inet 127.0.0.1/8 scope host lo
            valid_lft forever preferred_lft forever
    inet6 ::1/128 scope host noprefixroute
        valid_lft forever preferred_lft forever
2: ens33: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc fq_codel state UP group default qlen 1000
    link/ether 00:0c:29:69:ed:35 brd ff:ff:ff:ff:ff:ff
        altname ens2
        altname ens253
        inet 192.168.72.131/24 brd 192.168.72.255 scope global dynamic ens33
            valid_lft 1699sec preferred_lft 1699sec
        inet6 fe80::20c:29ff:fe69:ed35/64 scope link
            valid_lft forever preferred_lft forever
3: docker0: <NO-CARRIER,BROADCAST,MULTICAST,UP> mtu 1500 qdisc noqueue state DOWN group default
    link/ether 02:42:4d:56:26:b3 brd ff:ff:ff:ff:ff:ff
        inet 172.17.0.1/16 brd 172.17.255.255 scope global docker0
            valid_lft forever preferred_lft forever
alu@d12:~$ _

```

```

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d12 login: alu
Password:
Linux d12 6.1.0-13-amd64 #1 SMP PREEMPT_DYNAMIC Debian 6.1.55-1 (2023-09-29) x86_64

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Last login: Thu Nov  9 09:51:29 CET 2023 on tty1
alu@d12:~$ ip a
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN group default qlen 1000
    link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00
        inet 127.0.0.1/8 scope host lo
            valid_lft forever preferred_lft forever
    inet6 ::1/128 scope host noprefixroute
        valid_lft forever preferred_lft forever
2: ens33: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc fq_codel state UP group default qlen 1000
    link/ether 00:0c:29:1e:99:f0 brd ff:ff:ff:ff:ff:ff
        altname ens2
        altname ens253
        inet 192.168.72.130/24 brd 192.168.72.255 scope global dynamic ens33
            valid_lft 1699sec preferred_lft 1699sec
        inet6 fe80::20c:29ff:fe1e:99f0/64 scope link
            valid_lft forever preferred_lft forever
3: docker0: <NO-CARRIER,BROADCAST,MULTICAST,UP> mtu 1500 qdisc noqueue state DOWN group default
    link/ether 02:42:95:f0:34:e0 brd ff:ff:ff:ff:ff:ff
        inet 172.17.0.1/16 brd 172.17.255.255 scope global docker0
            valid_lft forever preferred_lft forever
alu@d12:~$ _

```

```

castillejo@DAN2:~$ ssh alu@192.168.72.131
The authenticity of host '192.168.72.131 (192.168.72.131)' can't be established.
ED25519 key fingerprint is SHA256:F7YkwQ0QdgIy61r/0RJuItds2BxAFnEHKaDKlCi73ok.
This key is not known by any other names.
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added '192.168.72.131' (ED25519) to the list of known hosts.
alu@192.168.72.131's password:
Linux d12 6.1.0-13-amd64 #1 SMP PREEMPT_DYNAMIC Debian 6.1.55-1 (2023-09-29) x86_64

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Last login: Fri Nov 10 10:06:48 2023
alu@d12:~$ 

```

```

castillejo@DAW2:~$ ssh alu@192.168.72.131
The authenticity of host '192.168.72.131' (192.168.72.131) can't be established.
ED25519 key fingerprint is SHA256:F7YkwkQ0DgIy6Ir/0RJuItds2BxAFnEHKaDKlCi73ok.
This host key is not known by any other names.
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added '192.168.72.131' (ED25519) to the list of known hosts.
alu@192.168.72.131's password:
Linux d12 6.1.0-13-amd64 #1 SMP PREEMPT_DYNAMIC Debian 6.1.55-1 (2023-09-29) x86_64

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Last login: Fri Nov 10 10:06:48 2023
alu@d12:~$ [REDACTED]

castillejo@DAW2:~$ ssh alu@192.168.72.130
The authenticity of host '192.168.72.130' (192.168.72.130) can't be established.
ED25519 key fingerprint is SHA256:F7YkwkQ0DgIy6Ir/0RJuItds2BxAFnEHKaDKlCi73ok.
This host key is known by the following other names/addresses:
  ~/.ssh/known_hosts:1: [hashed name]
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added '192.168.72.130' (ED25519) to the list of known hosts.
alu@192.168.72.130's password:
Linux d12 6.1.0-13-amd64 #1 SMP PREEMPT_DYNAMIC Debian 6.1.55-1 (2023-09-29) x86_64

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Last login: Fri Nov 10 10:07:35 2023
alu@d12:~$ [REDACTED]

```

```

alu@d12:~$ docker swarm init
Swarm initialized: current node (vfxa6t499lj1ciphx89aw67gk) is now a manager.

To add a worker to this swarm, run the following command:

  docker swarm join --token SWMTKN-1-3twah0m1hxfbxu2jl2e16jwt16qyv4inlksybzmomnqbvcnm5-23k
uyrlu2git0df6ivhfmfv9 192.168.72.131:2377

To add a manager to this swarm, run 'docker swarm join-token manager' and follow the instructions.

alu@d12:~$ docker swarm join --token SWMTKN-1-3twah0m1hxfbxu2jl2e16jwt16qyv4inlksybzmomnqbvc
nm5-23kuyrlu2git0df6ivhfmfv9 192.168.72.131:2377
Error response from daemon: This node is already part of a swarm. Use "docker swarm leave" to
leave this swarm and join another one.
alu@d12:~$ [REDACTED]

```

```

alu@d12:~$ docker swarm init
Swarm initialized: current node (vfxa6t499lj1ciphx89aw67gk) is now a manager.

To add a worker to this swarm, run the following command:

    docker swarm join --token SWMTKN-1-3twah0m1hxfbxu2jl2e16jwt16qyv4inlksybzomnqbym5-23k
uyrlu2git0df6ivhfmfv9 192.168.72.131:2377

To add a manager to this swarm, run 'docker swarm join-token manager' and follow the instructions.

alu@d12:~$ docker swarm join --token SWMTKN-1-3twah0m1hxfbxu2jl2e16jwt16qyv4inlksybzomnqbym5-23k
uyrlu2git0df6ivhfmfv9 192.168.72.131:2377
Error response from daemon: This node is already part of a swarm. Use "docker swarm leave" to leave this swarm and join another one.
alu@d12:~$ docker node ls
ID                      HOSTNAME  STATUS  AVAILABILITY  MANAGER STATUS   ENGINE VERSION
vfxa6t499lj1ciphx89aw67gk *  d12      Ready   Active        Leader        24.0.6
alu@d12:~$ docker service create --replicas 1 --name helloworld -p 8080:8080 drhelius/hellowo
rld-node-microservice
75ax9a55koxtv0lh15od5d631
overall progress: 1 out of 1 tasks
1/1: running
verify: Service converged
alu@d12:~$ curl 127.0.0.1:8080
Hello World from host "aeee88679124".
alu@d12:~$
```

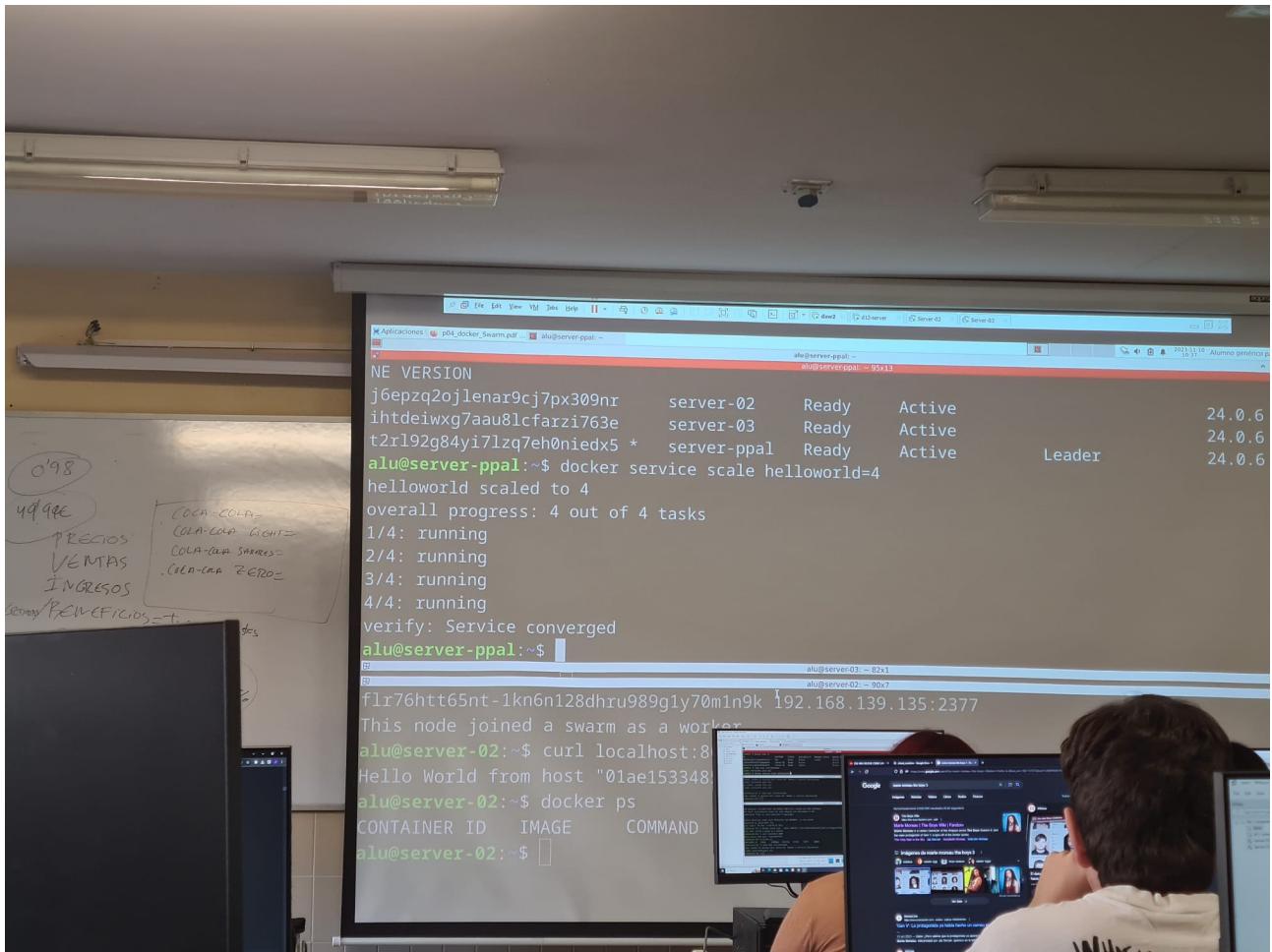
The screenshot shows a terminal window with two tabs. The active tab is titled 'alu@d12: ~ 93x40'. It contains the following text:

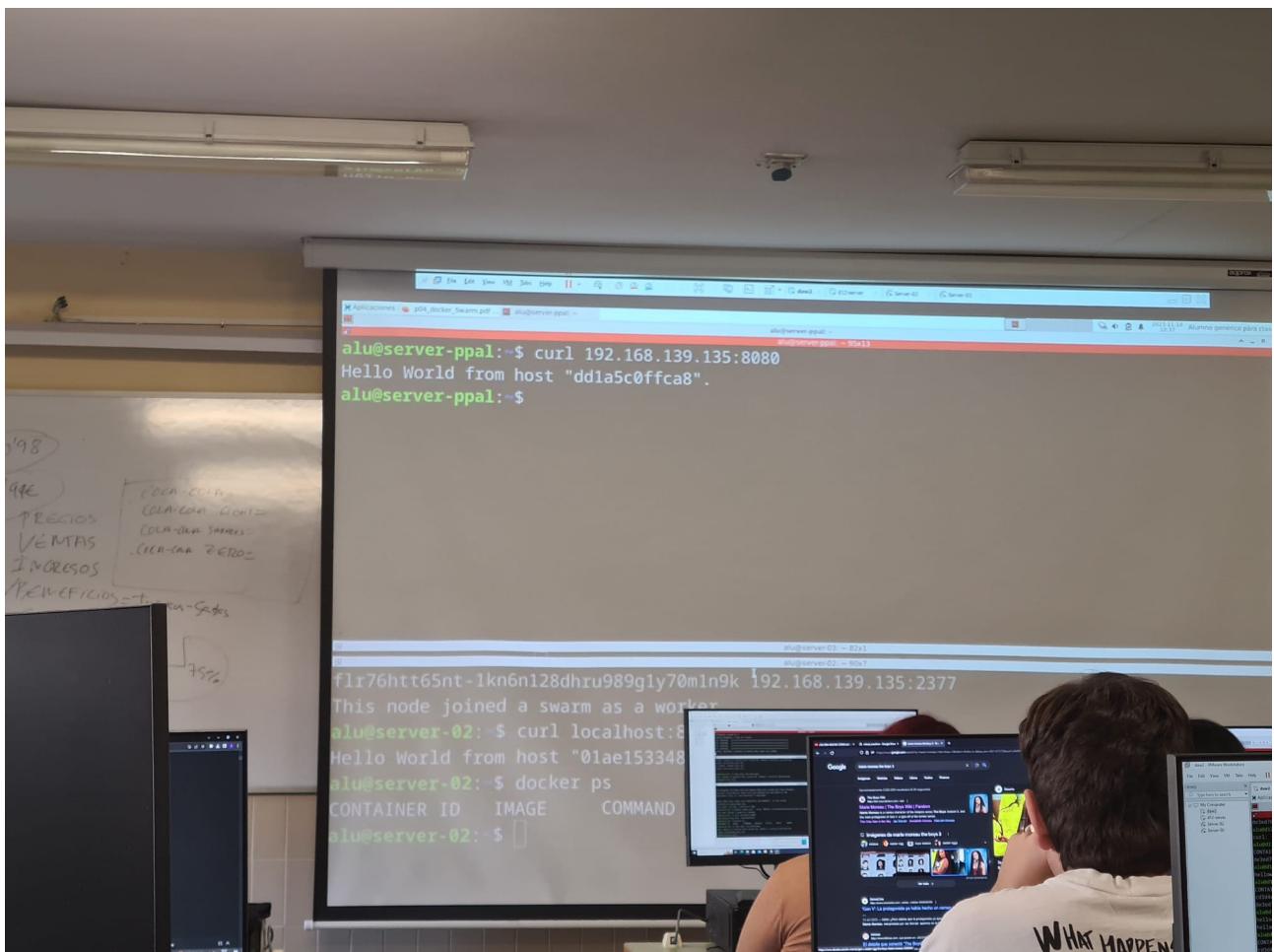
```

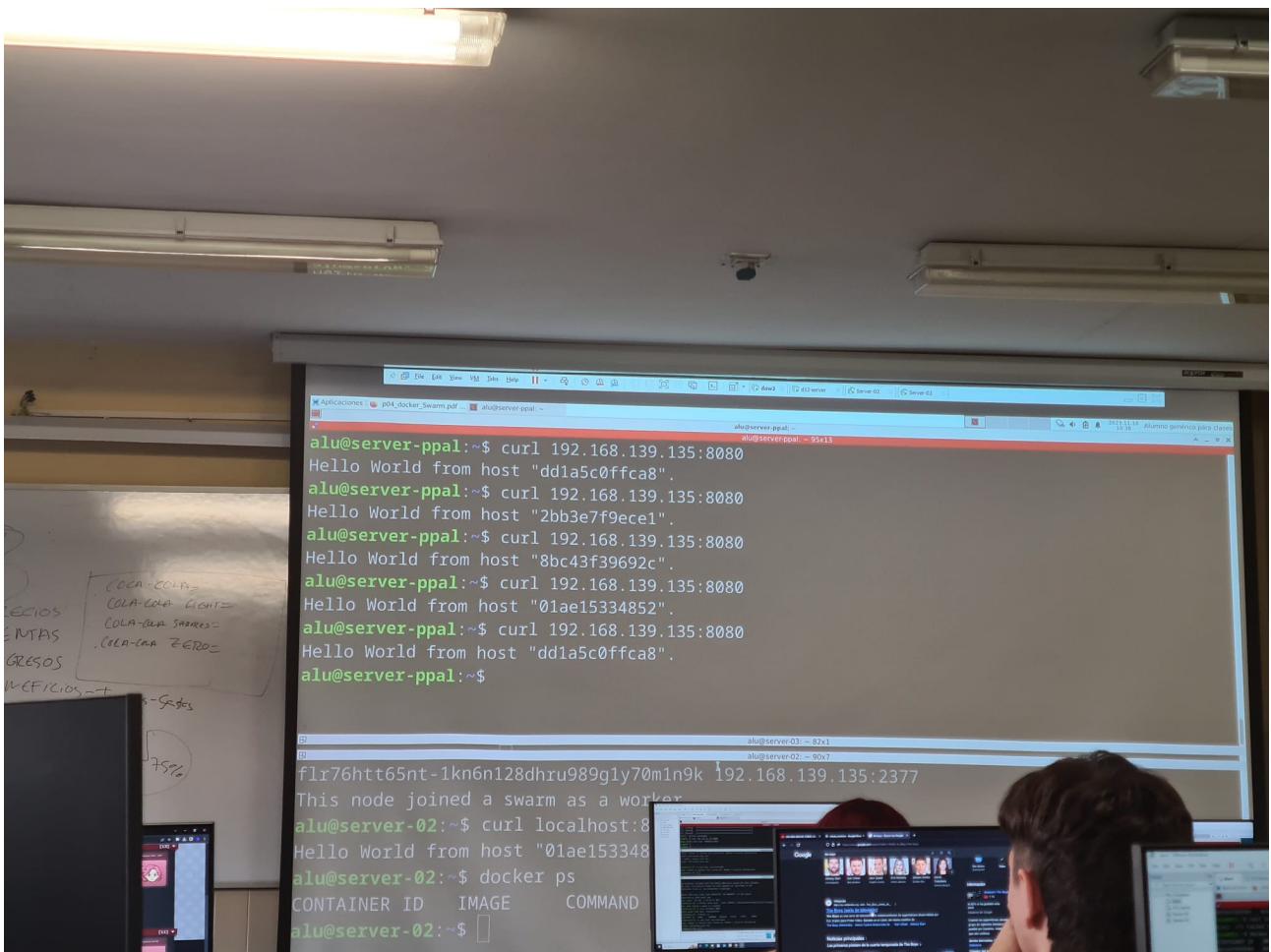
alu@d12: ~
castillejo@DAW2:~$ ssh alu@192.168.72.130
The authenticity of host '192.168.72.130 (192.168.72.130)' can't be established.
ED25519 key fingerprint is SHA256:F7YwkwQODgIy6Ir/0RJUitds2BxAFnEHKaDK1Ci73ok.
This host key is known by the following other names/addresses:
  ~/.ssh/known_hosts:1: [hashed name]
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added '192.168.72.130' (ED25519) to the list of known hosts.
alu@192.168.72.130's password:
Linux d12 6.1.0-13-amd64 #1 SMP PREEMPT_DYNAMIC Debian 6.1.55-1 (2023-09-29) x86_64

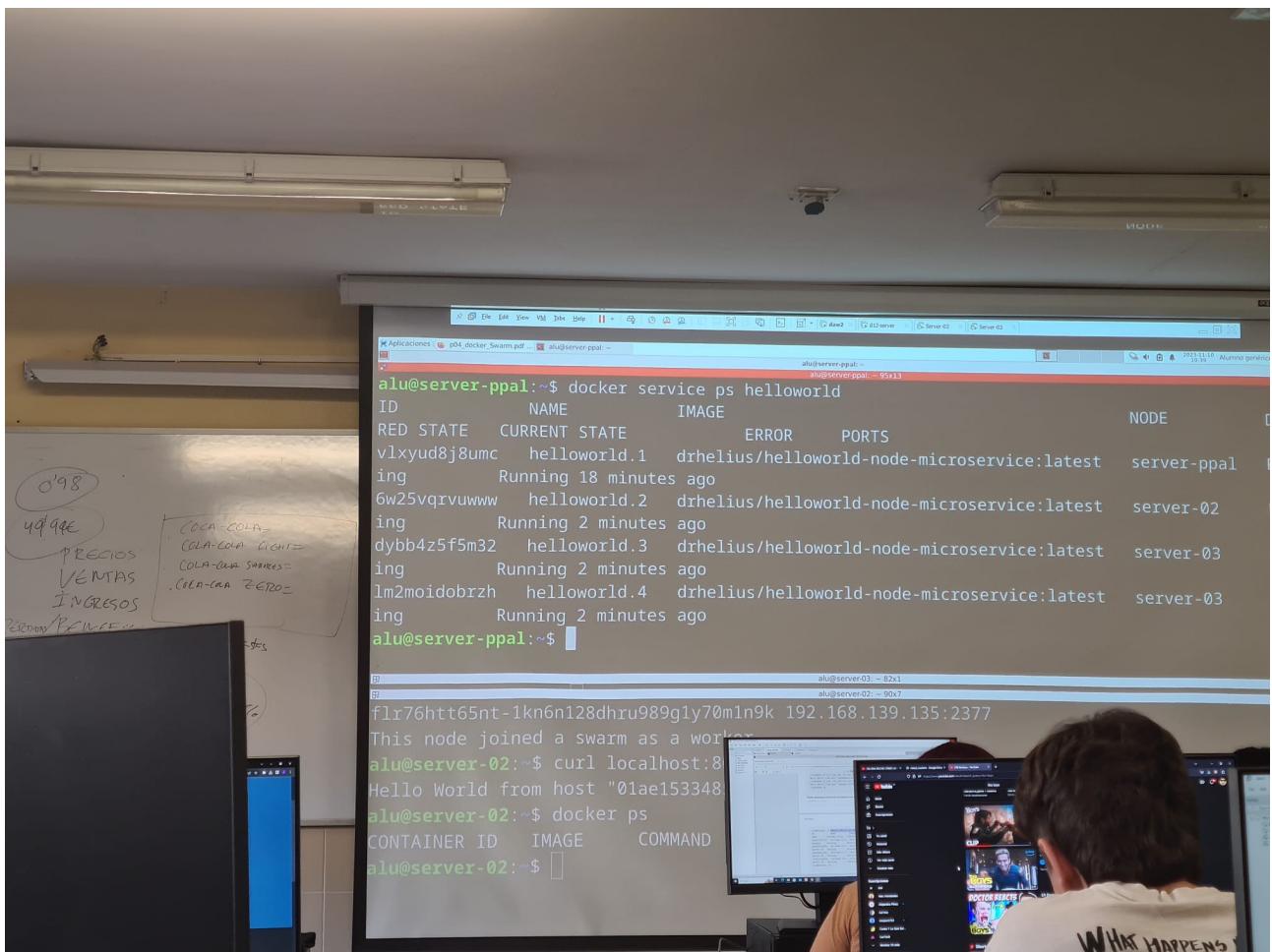
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Last login: Fri Nov 10 10:07:35 2023
alu@d12:~$ curl localhost
curl: (7) Failed to connect to localhost port 80 after 0 ms: Couldn't connect to server
alu@d12:~$ curl localhost:8080
curl: (7) Failed to connect to localhost port 8080 after 0 ms: Couldn't connect to server
alu@d12:~$ docker swarm join --token SWMTKN-1-3twah0m1hxfbxu2jl2e16jwt16qyv4inlksybzomnqbym5-23k
uyrlu2git0df6ivhfmfv9 192.168.72.131:2377
This node joined a swarm as a worker.
alu@d12:~$ curl localhost:8080
Hello World from host "aeee88679124".
alu@d12:~$
```





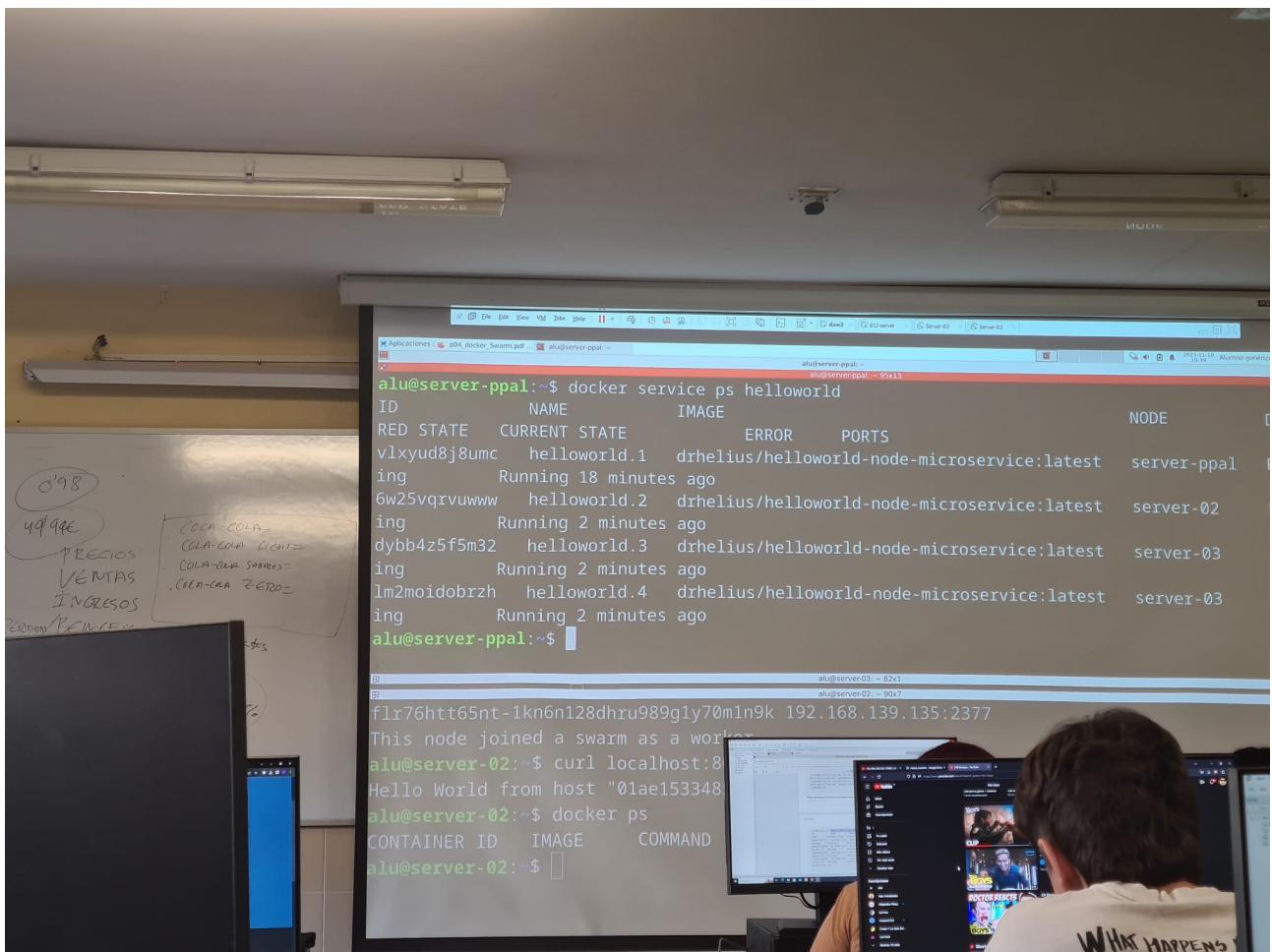


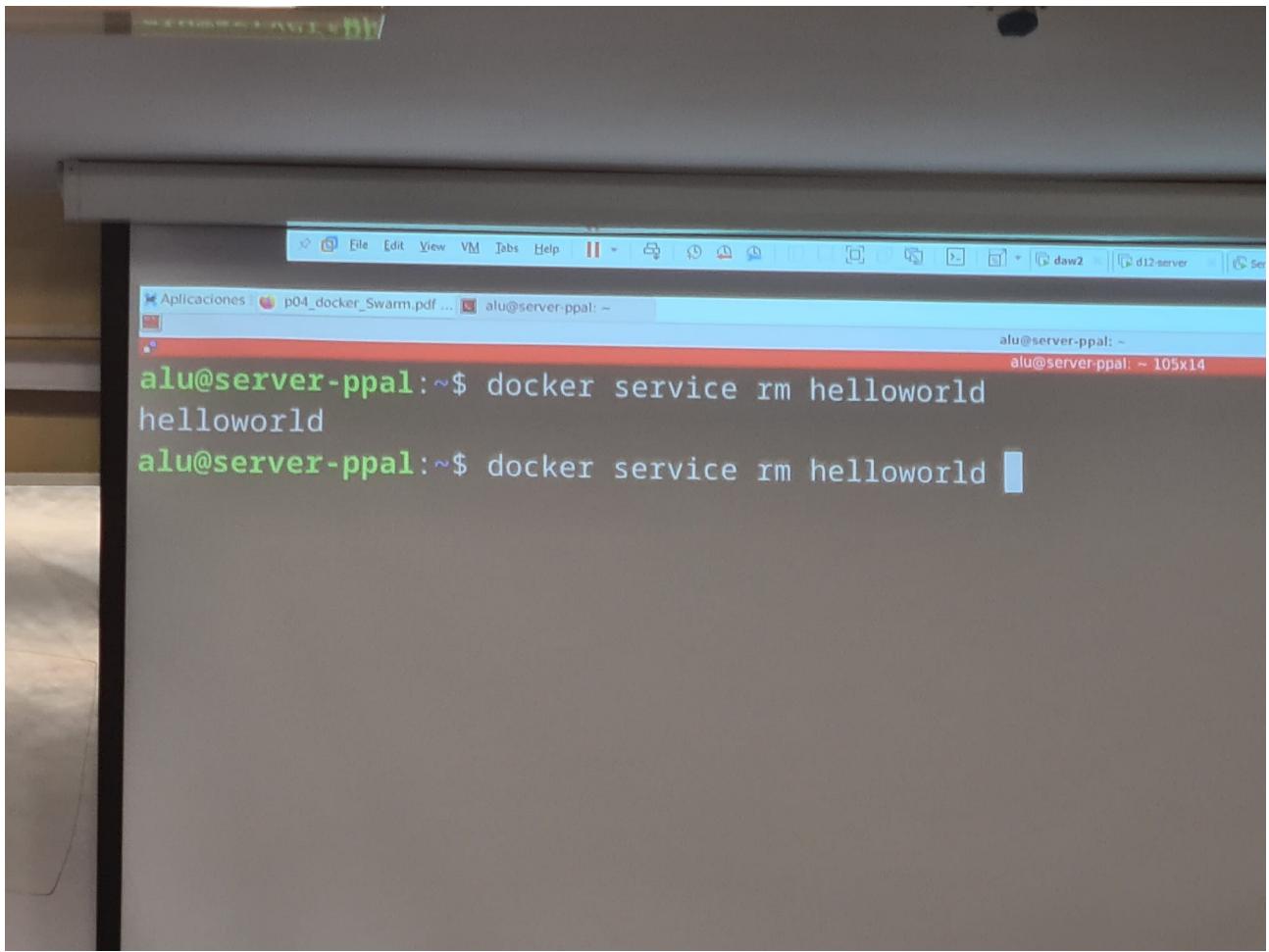


A screenshot of a terminal window titled "Aplicaciones" containing the following text:

```
6w25vqr vuwww helloworld.2 drhelius/helloworld-node-microservice:latest
dybb4z5f5m32 helloworld.3 drhelius/helloworld-node-microservice:latest
lm2moidobrz h helloworld.4 drhelius/helloworld-node-microservice:latest

alu@server-ppal:~$ docker service scale helloworld=6
helloworld scaled to 6
overall progress: 6 out of 6 tasks
1/6: running [=====>]
2/6: running [=====>]
3/6: running [=====>]
4/6: running [=====>]
5/6: running [=====>]
6/6: running [=====>]
verify: Service converged
alu@server-ppal:~$
```



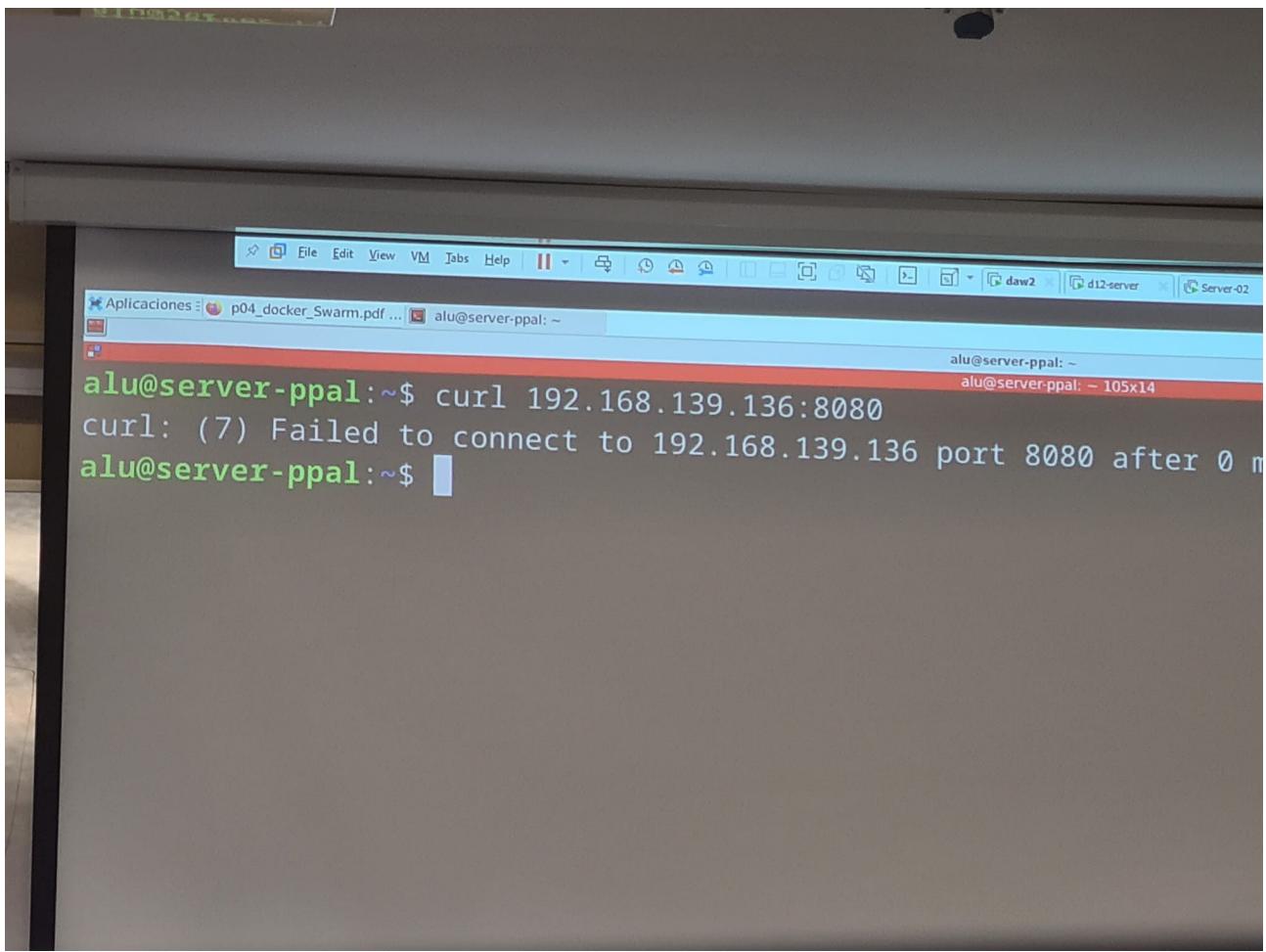


A screenshot of a terminal window titled "alu@server-ppal: ~". The window shows two consecutive commands being run:

```
alu@server-ppal:~$ docker service rm helloworld
helloworld
alu@server-ppal:~$ docker service rm helloworld
```

A screenshot of a Linux terminal window titled "Aplicaciones". The terminal shows the following command history:

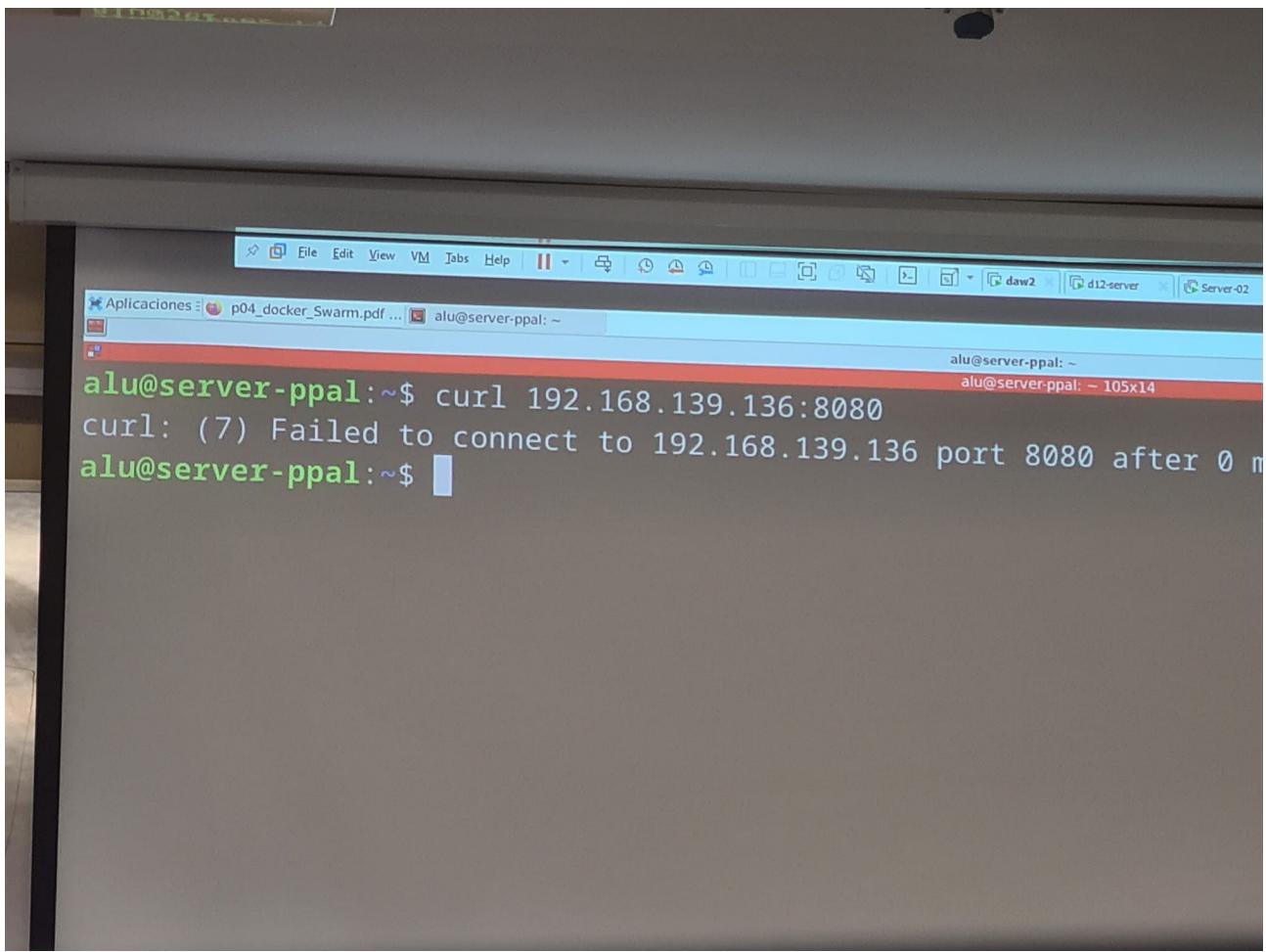
```
alu@server-ppal:~$ docker service rm helloworld
helloworld
alu@server-ppal:~$ docker service ps helloworld
no such service: helloworld
alu@server-ppal:~$ docker ps -a
CONTAINER ID        IMAGE               COMMAND             CREATED             STATUS              PORTS
01ae15334852        drhelius/helloworld-node-microservice:latest
                     8080/tcp           "node app.js"      5 hours ago       up      0.0.0.0:8080->8080/tcp
c6b80d141454        hello-world        "/bin/sh -c /usr
                     weeks ago        up      0.0.0.0:80->80
alu@server-ppal:~$
```

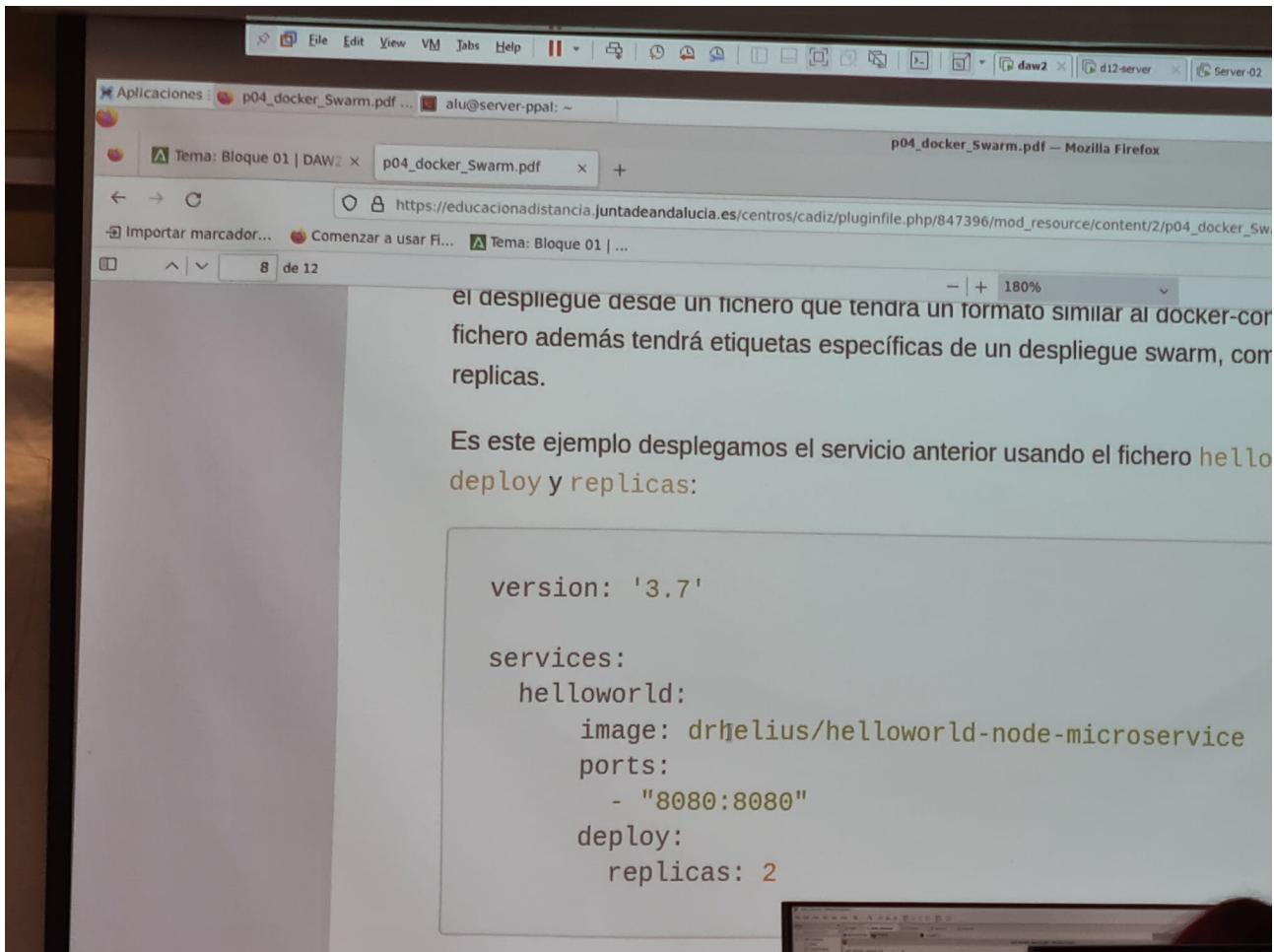


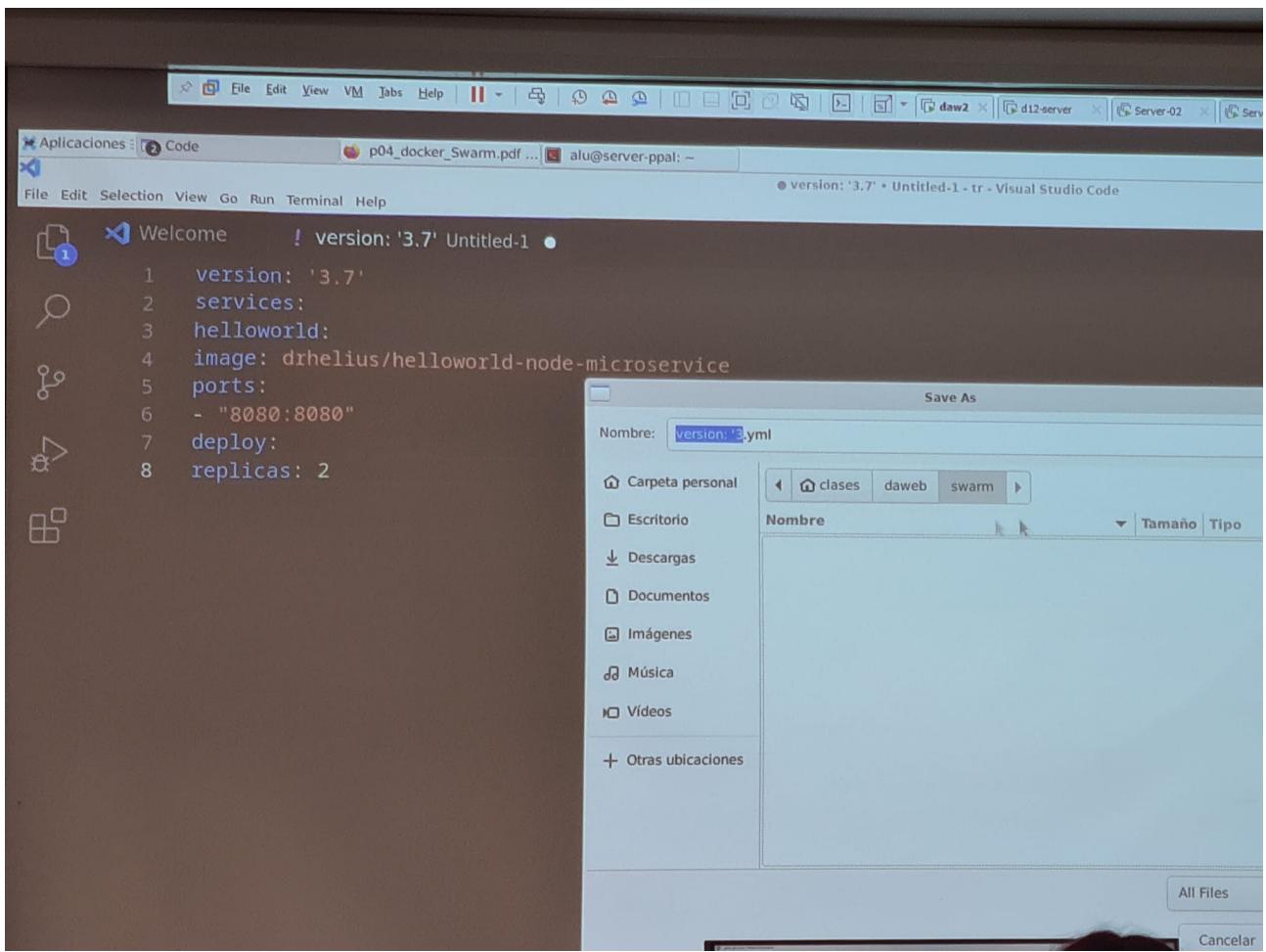
A screenshot of a Linux terminal window titled "Aplicaciones". The terminal shows the following command history:

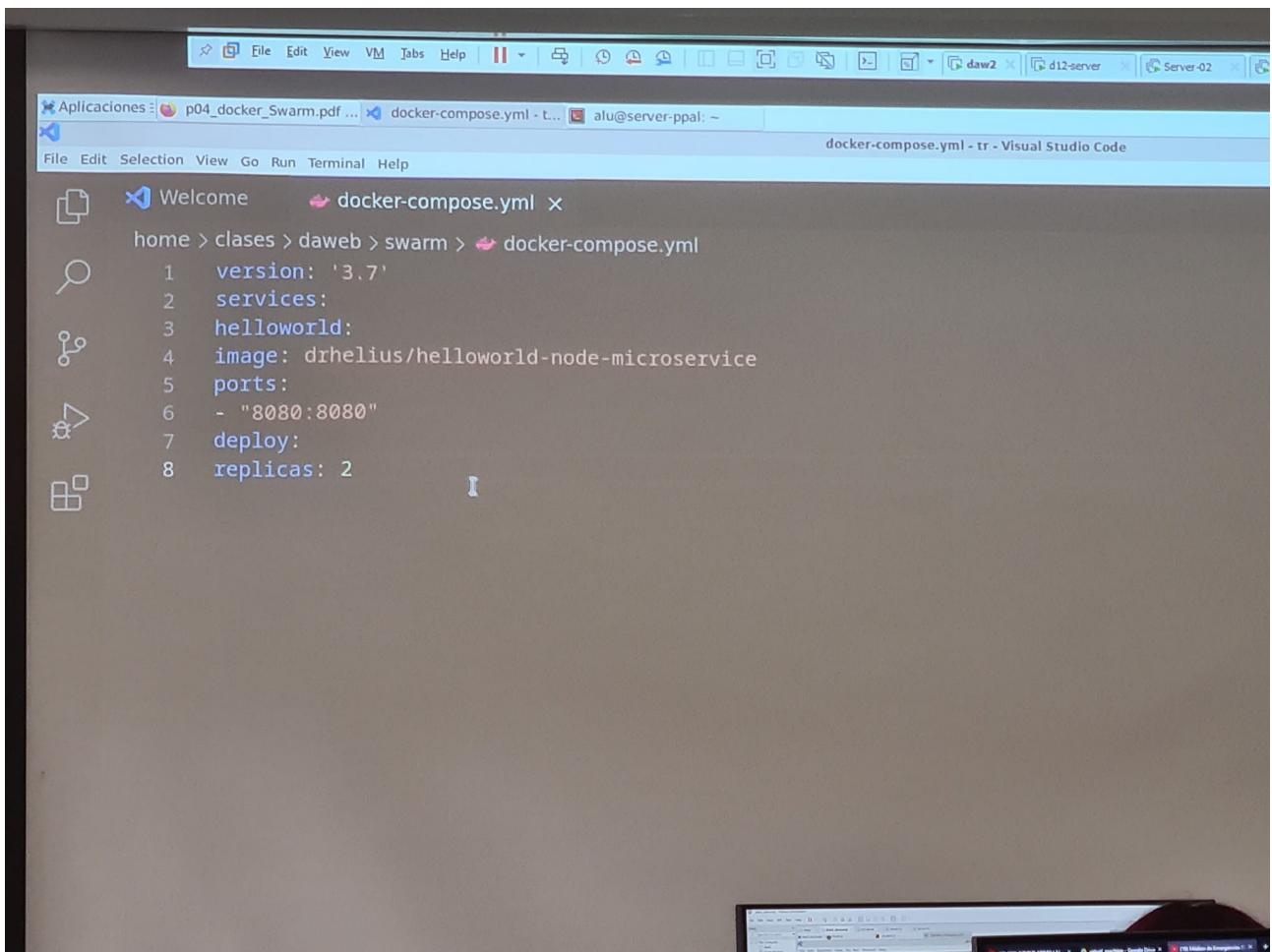
```
alu@server-ppal:~$ docker service rm helloworld
helloworld
alu@server-ppal:~$ docker service ps helloworld
no such service: helloworld
alu@server-ppal:~$ docker ps -a
CONTAINER ID        IMAGE               COMMAND             CREATED             STATUS              PORTS
01ae15334852        drhelius/helloworld-node-microservice:latest
                     8080/tcp           "node app.js"      5 hours ago       up      0.0.0.0:8080->8080/tcp
c6b80d141454        hello-world        "/bin/sh -c /usr
                     weeks ago        up      0.0.0.0:8080->8080/tcp
0424269d2b5c        hello-world        "/bin/sh -c /usr
alu@server-ppal:~$
```

The terminal window has a blue header bar with menu items: File, Edit, View, VM, Tabs, Help. There are also several icons in the top right corner. The bottom status bar shows the user's name and session information.









```
version: '3.7'
services:
  helloworld:
    image: drhelius/helloworld-node-microservice
    ports:
      - "8080:8080"
    deploy:
      replicas: 2
```

Tabs Help || daw2 d12-server Server-02 Server-03

ocker-compose.yml - t... alu@server-ppal: ~ p04_docker_Swarm.pdf — Mozilla Firefox

er_Swarm.pdf +

educacionadistancia.juntadeandalucia.es/centros/cadiz/pluginfile.php/847396/mod_resource/content/2/p04_docker_Swarm.pdf

A Tema: Bloque 01 | ...

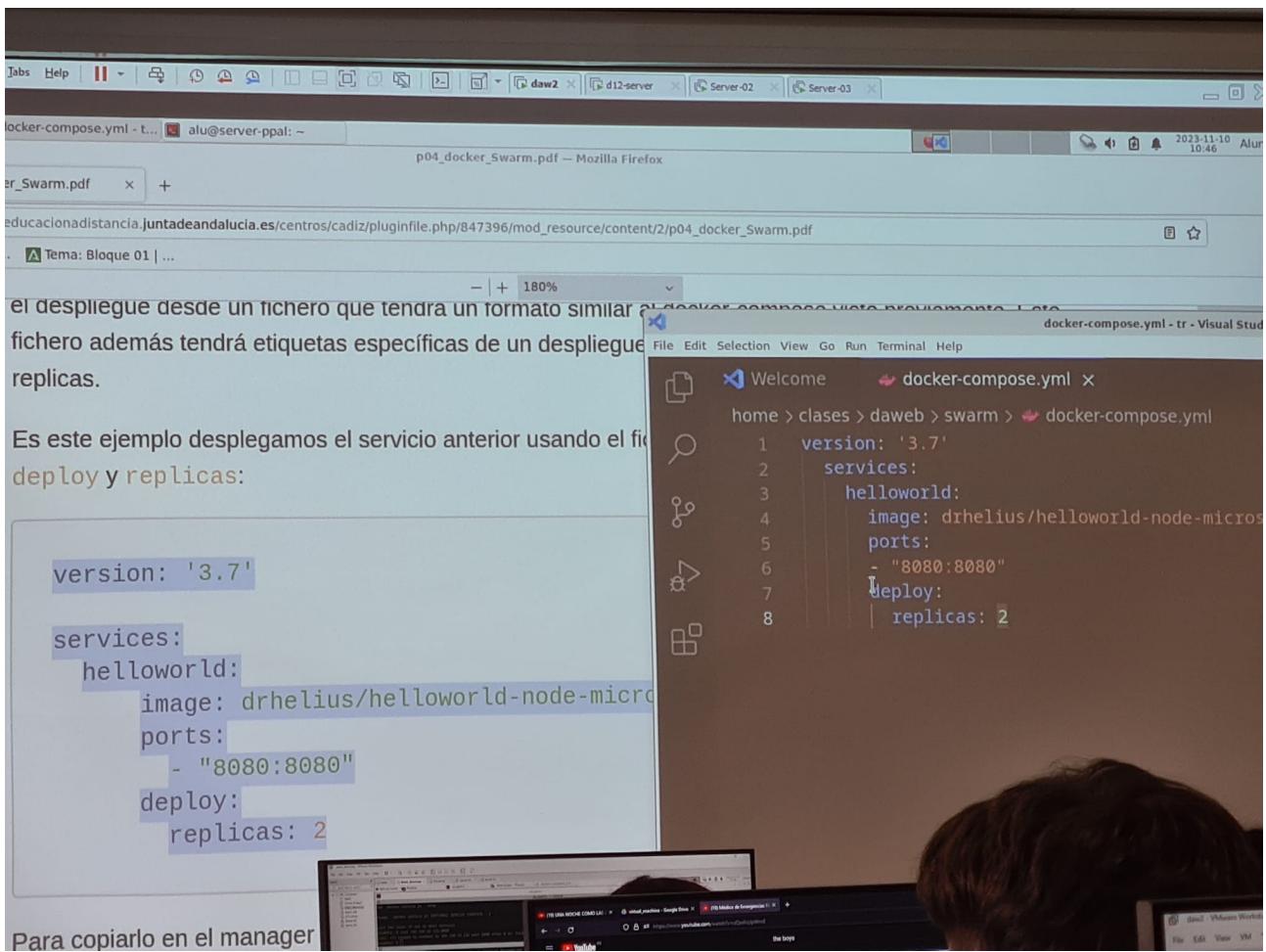
el despliegue desde un fichero que tendrá un formato similar al docker-compose.yml visto en el desarrollo. El fichero además tendrá etiquetas específicas de un despliegue en Swarm.

Es este ejemplo desplegamos el servicio anterior usando el fichero **docker-compose.yml** con las secciones **version**, **services**, **deploy** y **replicas**:

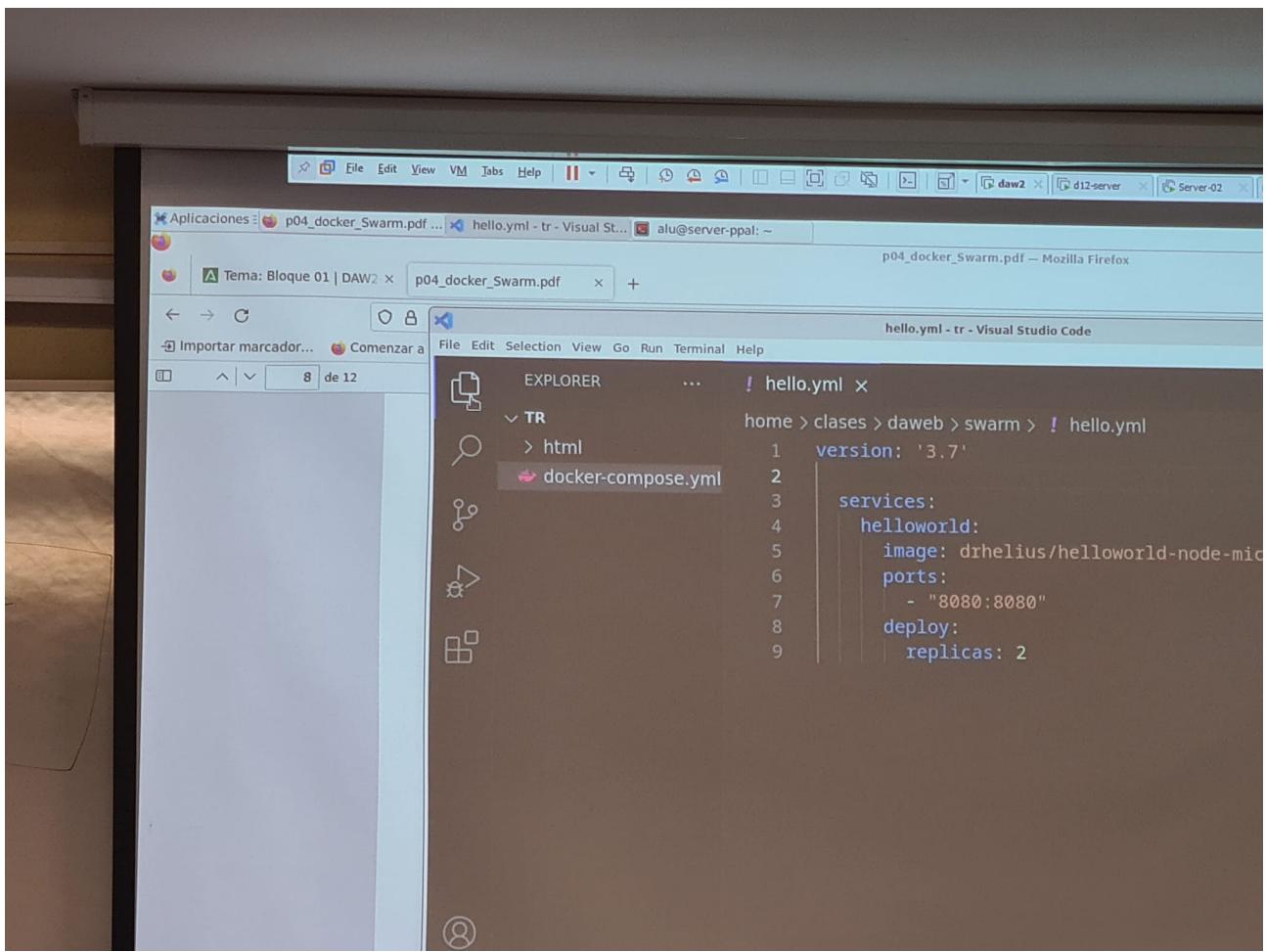
```
version: '3.7'

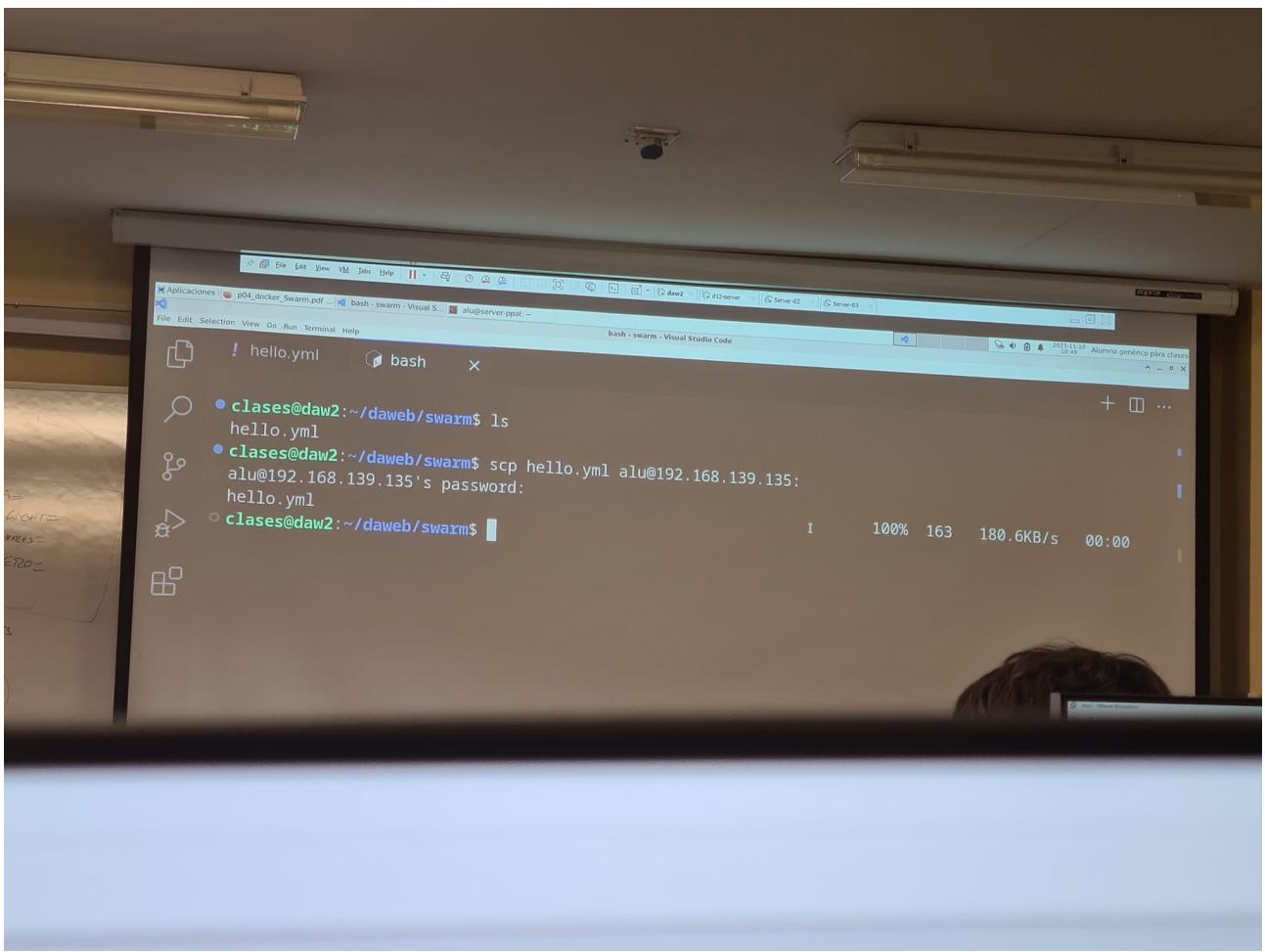
services:
  helloworld:
    image: drhelius/helloworld-node-microservice
    ports:
      - "8080:8080"
    deploy:
      replicas: 2
```

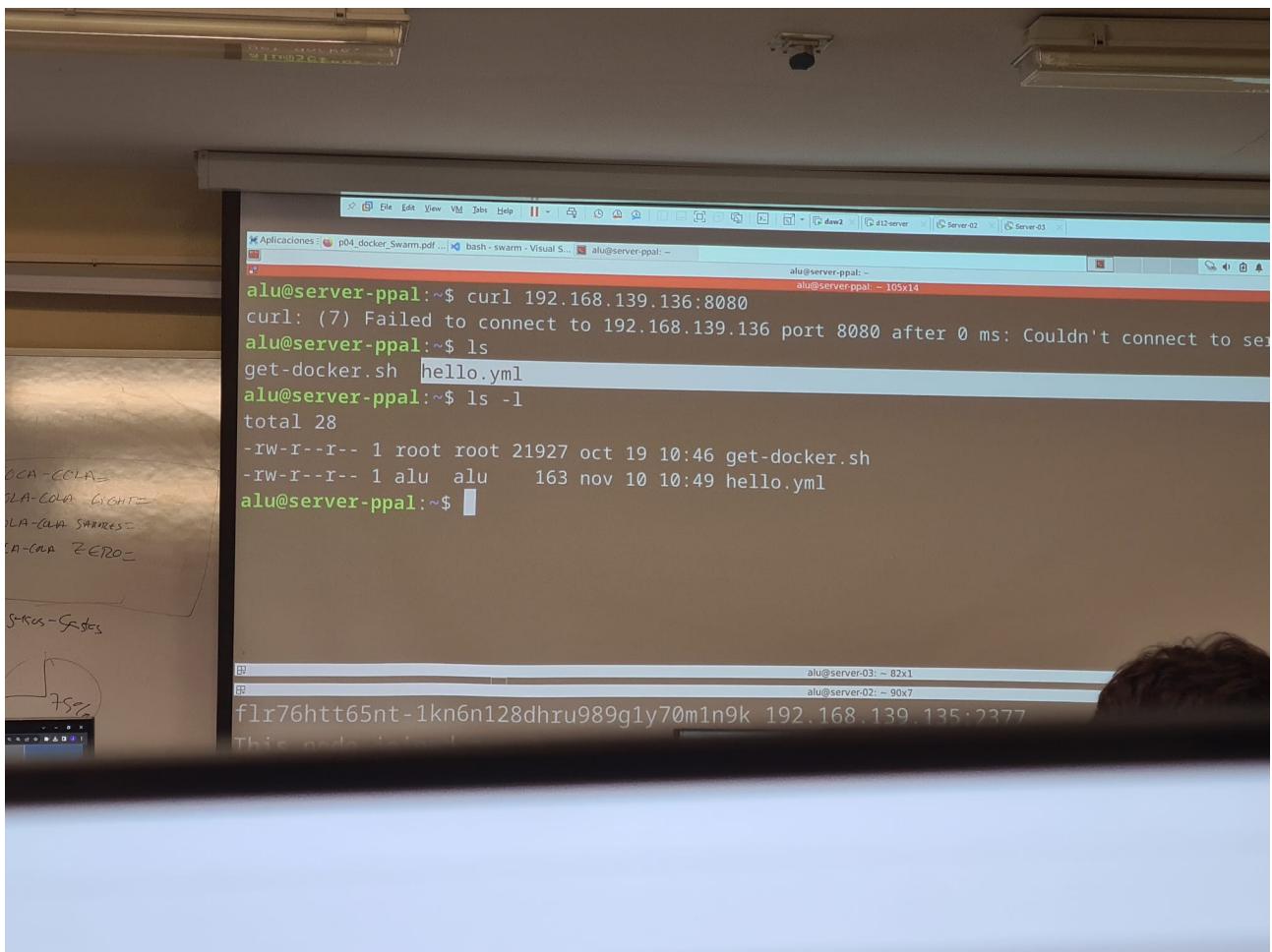
Para copiarlo en el manager

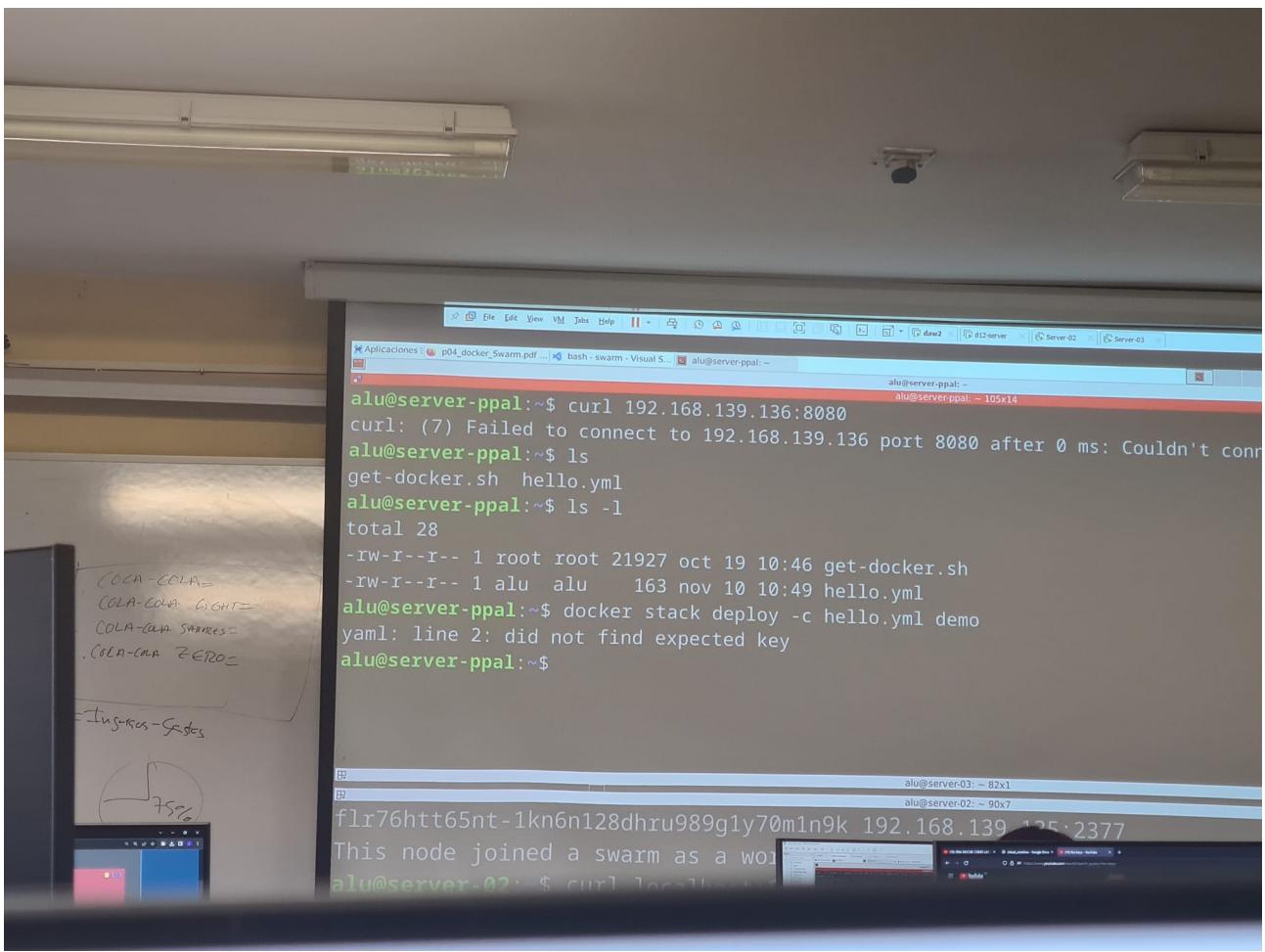


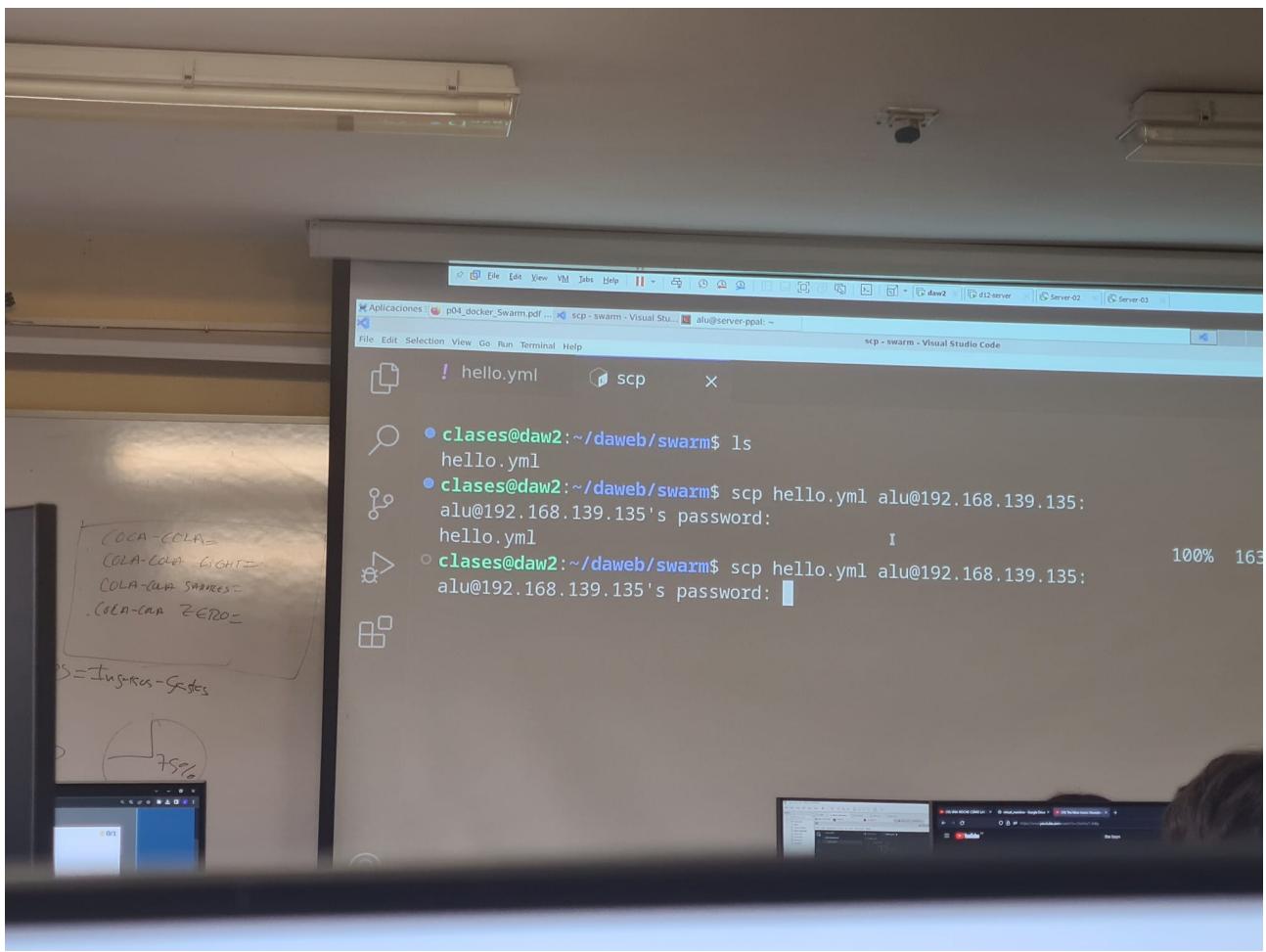
```
File Edit Selection View Go Run Terminal Help
dockercfg Welcome docker-compose.yml
home > clases > daweb > swarm > docker-compose.yml
1 version: '3.7'
2 services:
3   helloworld:
4     image: drhelius/helloworld-node-microservice
5     ports:
6       - "8080:8080"
7     deploy:
8       replicas: 2
```

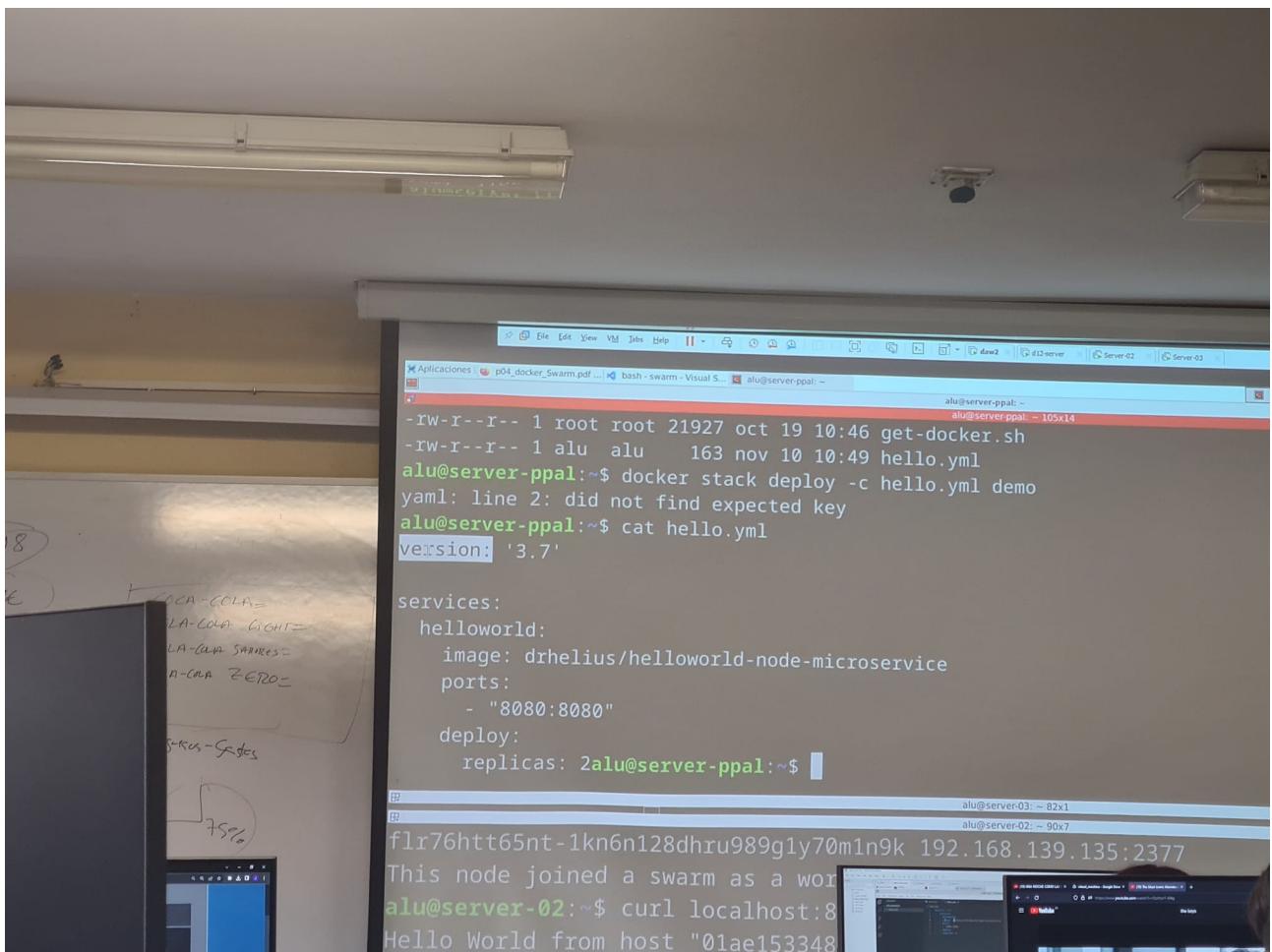












```
alu@server-ppal:~$ docker stack deploy -c hello.yml demo^C
Creating network demo_default
failed to create network demo_default: Error response from daemon: rpc error
must be valid as a DNS name component
alu@server-ppal:~$ docker stack deploy -c hello.yml demo
Creating network demo_default
Creating service demo_helloworld
alu@server-ppal:~$ docker stack ps demo
ID           NAME          IMAGE
CURRENT STATE   ERROR      PORTS
qs3ia68w0jyt  demo_helloworld.1  drhelius/helloworld-node-microservice:l
Running 32 seconds ago
jhqy742jcgef  demo_helloworld.2  drhelius/helloworld-node-microservice:l
Running 32 seconds ago
alu@server-ppal:~$ █
flr76htt65nt-1kn6n128dhru989g1y70m1n9k 192.168.139.135:2377
This node joined a swarm as a worker
```