

Guía Completa: Instalación de Portainer CE y Moodle con Docker

PARTE 1 - Instalación de Docker y Docker Compose

```
examen@UBUNTU-24-04:~$ sudo apt install -y docker.io docker-compose ca-certificates curl gnupg
[sudo] contraseña para examen:
Leyendo lista de paquetes... Hecho
Creando árbol de dependencias... Hecho
Leyendo la información de estado... Hecho
ca-certificates ya está en su versión más reciente (20240203).
fijado ca-certificates como instalado manualmente.
Los paquetes indicados a continuación se instalaron de forma automática y ya no
son necesarios.
  libgl1-amber-dri libglapi-mesa libllvm17t64
Utilice «sudo apt autoremove» para eliminarlos.
```

```
examen@UBUNTU-24-04:~$ docker --version
Docker version 28.2.2, build 28.2.2-0ubuntu1~24.04.1
examen@UBUNTU-24-04:~$ docker-compose --version
Docker Compose version v2.24.5
examen@UBUNTU-24-04:~$ soy daniel
```

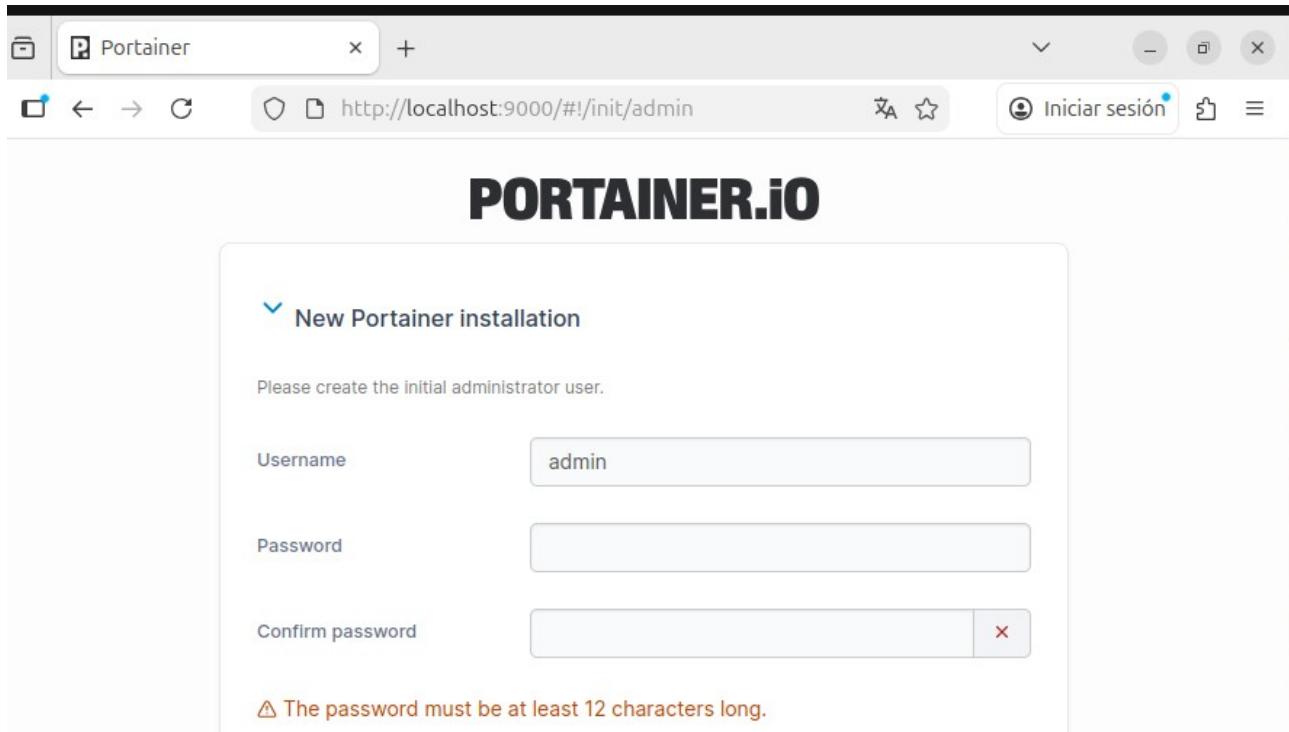
PARTE 2 - Instalación de Portainer CE

```
examen@UBUNTU-24-04:~$ sudo docker volume create portainer_data
portainer_data
examen@UBUNTU-24-04:~$ soy daniel
```

Paso 2.1: Verificar que Portainer está ejecutándose

```
[+] examen@UBUNTU-24-04:~$ sudo docker run -d \
-p 9000:9000 \
-p 9443:9443 \
--name=portainer \
--restart=always \
-v /var/run/docker.sock:/var/run/docker.sock \
-v portainer_data:/data \
portainer/portainer-ce:latest
Unable to find image 'portainer/portainer-ce:latest' locally
latest: Pulling from portainer/portainer-ce
22d4f45bf667: Pull complete
089b96337e3d: Pull complete
c551c6af3241: Pull complete
9f7772ceb88a: Pull complete
d35c85f36345: Pull complete
f3e139b9cd66: Pull complete
2d896f38a01e: Pull complete
4f4fb700ef54: Pull complete
Digest: sha256:d38a6876b61df32e4da13c0ca61cf2aa0f27afc103abb4ca7ad4
Status: Downloaded newer image for portainer/portainer-ce:latest
17da185b177d52bf92cd6e28d7f44ce4e3bdbc6eba85238e9ccb675d43944e33
examen@UBUNTU-24-04:~$
```

```
[+] examen@UBUNTU-24-04:~$ sudo docker ps
CONTAINER ID   IMAGE          COMMAND       CREATED      STATUS
TATUS          PORTS          NAMES
17da185b177d   portainer/portainer-ce:latest   "/portainer"   47 seconds ago  Up 46 seconds
0.0.0.0:9000->9000/tcp, [::]:9000->9000/tcp, 8000/tcp, 0.0.0.0:9443->9443/tcp, [::]:9443->9443/tcp   portainer
examen@UBUNTU-24-04:~$ soy daniel
```



Contraseña → AdminAdmin123

The screenshot shows the Portainer "Container list" interface. The top navigation bar includes a bell icon, a help icon, a user icon labeled "admin", and a dropdown menu. The main table lists three containers:

Name	State	Image	Created
moodle-app	running	jhardison/moodle:latest	2025-11-16 2
moodle-mariadb	healthy	mariadb:10.11	2025-11-16 2
portainer	running	portainer/portainer-ce:latest	2025-11-16 2

At the bottom right, there is a "Items per page" dropdown set to 10.

(Estos son los contenedores después de hacer el docker-compose up)

2.2 Creamos el .yml con el contenido

```
GNU nano 7.2              docker-compose.yml
version: "3.8"

services:
  mariadb:
    image: mariadb:10.11
    container_name: moodle-mariadb
    restart: unless-stopped
    environment:
      MYSQL_ROOT_PASSWORD: superroot123
      MYSQL_DATABASE: moodle
      MYSQL_USER: moodleuser
      MYSQL_PASSWORD: moodle123
    volumes:
      - mariadb_data:/var/lib/mysql
  networks:
    - moodle-net
  command: >
    --character-set-server=utf8mb4
    --collation-server=utf8mb4_unicode_ci
    --default-authentication-plugin=mysql_native_password
    --innodb-file-format=Barracuda
    --innodb-file-per-table=1
    --innodb-large-prefix=1
  healthcheck:
    test: ["CMD", "mysqladmin", "ping", "-h", "localhost", "-u", "root", "-ps"]
    interval: 10s
    timeout: 5s
    retries: 10

  moodle:
    image: jhardison/moodle:latest
    container_name: moodle-app
    restart: unless-stopped
    ports:
      - "8080:80"
    environment:
      DB_PORT_3306_TCP_ADDR: mariadb
      DB_PORT_3306_TCP_PORT: 3306
      DB_ENV_MYSQL_DATABASE: moodle
      DB_ENV_MYSQL_USER: moodleuser
      DB_ENV_MYSQL_PASSWORD: moodle123
      MOODLE_URL: http://192.168.33.115:8080
    depends_on:
      mariadb:
        condition: service_healthy
  volumes:
    - moodle_data:/var/www/html
    - moodledata:/var/moodledata

^O Ayuda ^O Guardar ^W Buscar ^K Cortar ^T Ejecutar ^C Ubicación
^X Salir ^R Leer fich ^V Reemplazar ^I Pegar ^J Justificar ^L Ir a línea
```

2.3 Descargamos las imagenes (en la practica he utilizado otras, por que me daba error)

```
root@UBUNTU-24-04:/home/examen/moodle-docker# docker images
REPOSITORY          TAG      IMAGE ID      CREATED       SIZE
portainer/portainer-ce   latest    aa2ac1fdb557  2 weeks ago  186MB
jhardison/moodle      latest    7520f108f7e4  3 years ago  723MB
root@UBUNTU-24-04:/home/examen/moodle-docker# docker pull mariadb:10.11
10.11: Pulling from library/mariadb
7e49dc6156b0: Downloading  12.06MB/29.54MB
9629f042e43d: Download complete
62c1a43ca7d9: Download complete
2540807a6100: Download complete
392acd9bdcf5: Download complete
9aa9032ee110: Downloading  3.748MB/71.13MB
96d7347ba317: Download complete
cffdfa9765de: Download complete
```

The screenshot shows the Portainer interface with the following details:

Name	Status	Image	Created
moodle-app	running	jhardison/moodle:latest	2025-11-16 2
moodle-mariadb	healthy	mariadb:10.11	2025-11-16 2
portainer	running	portainer/portainer-ce:latest	2025-11-16 2

At the bottom right, there is a "Items per page" dropdown set to 10.

PARTE 3 - Instalamos el Moodle

The screenshot shows a web browser window titled "Installation - Moodle 4.0.4x". The address bar indicates the URL is <http://192.168.33.115:8080/admin/>. The main content area displays the Moodle logo and the text "Moodle - Modular Object-Oriented Dynamic Learning Environment". Below this, there is a "Copyright notice" section containing the copyright information: "Copyright (C) 1999 onwards Martin Dougiamas (<https://moodle.com>)". It also includes the GNU General Public License notice and a statement about the program being distributed without warranty. A "See the Moodle License information page for full details: <https://docs.moodle.org/dev/License>" link is provided.

Installation

Moodle - Modular Object-Oriented Dynamic Learning Environment

Copyright notice

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Confirm

Have you read these conditions and understood them?

Continue **Cancel**

PHP setting max_input_vars is recommended to be at least 5000.

Your server environment meets all minimum requirements.

Continue **?**

The screenshot shows a web browser window with the URL <http://192.168.33.115:8080/>. The page title is "Installation". The main content is the "General" configuration section for a user account.

General Configuration:

- Username:** admin
- Choose an authentication method:** Manual accounts
- New password:** (password masked)
- Force password change:**
- First name:** Administrador
- Surname:** Sistema
- Email address:** admin@example.com
- Email display:** Allow everyone to see my email address
- City/town:** xativa
- Select a country:** Spain
- Timezone:** Server timezone (Europe/London)

A screenshot of a web browser showing the Moodle dashboard. The title bar says "Portainer | local" and "Dashboard". The address bar shows "http://192.168.33.115:8080/my/". The page header includes "moodle", "Home", "Dashboard", "My courses", "Site administration", and "Edit mode". Below the header, a message says "Welcome, Administrador!" with a yellow hand icon. There are buttons for "Next 7 days", "Sort by dates", and a search bar. A central box says "No in-progress courses".

Welcome, Administrador! 🙌

Timeline

Next 7 days ▾

Sort by dates ▾

Search by activity type or name



No in-progress courses

Calendar

All courses ▾

New event

◀ October

November 2025

▶ December

Mon	Tue	Wed	Thu	Fri	Sat	Sun
					1	2

A screenshot of a web browser showing a Moodle course view. The title bar says "Portainer | local" and "Dashboard". The address bar shows "http://192.168.33.115:8080/course/view". The page header includes "moodle", "Home", "Dashboard", "My courses", "Site administration", and "Edit mode". Below the header, a sidebar shows a list of course modules: "FORUM" and "Announcements".

Aula Virtual de Daniel

Course Settings Participants Grades Reports More ▾

General

[Collapse all](#)



FORUM

Announcements

CAPTURAS REQUERIDAS:

Portainer CE con los contenedores creados:

The screenshot shows the Portainer Container list interface. At the top, there are buttons for Start, Stop, Kill, Restart, Pause, Resume, and Remove. Below is a table with columns: Name, State, Filter, Quick Actions, Stack, Image, and Created. The table contains the following data:

Name	State	Filter	Quick Actions	Stack	Image	Created
moodle-app	running			moodle-docker	jhardison/moodle:latest	2025-11-16 2
moodle-mariadb	healthy			moodle-docker	mariadb:10.11	2025-11-16 2
portainer	running			-	portainer/portainer-ce:latest	2025-11-16 2

At the bottom right, there is a dropdown for 'Items per page' set to 10.

Primera pantalla de la instalación

The screenshot shows the Moodle 4.0 installation wizard. The title bar says 'Portainer | local' and 'Installation - Moodle 4.0.4'. The main content area is titled 'Installation' and contains the following sections:

- Moodle - Modular Object-Oriented Dynamic Learning Environment**
- Copyright notice**

Below these sections is the GNU General Public License text:

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Confirm

Have you read these conditions and understood them?

Continue **Cancel**

Aula virtual creada:

The screenshot shows a Moodle course page titled "Aula Virtual de Daniel". At the top, there's a navigation bar with links for "Course", "Settings", "Participants", "Grades", "Reports", and "More". Below this, a section titled "General" is expanded, showing a "FORUM" icon and links for "Announcements". The page has a standard Moodle layout with a sidebar on the left.

Usuarios creados:

The screenshot shows the "Users" page in Moodle, titled "moodle DANIEL". It displays three users: "Administrador Sistema", "Daniel profesor", and "María Estudiante". The "General" tab is selected. A search bar is at the top right. Below it, there's a filter section for "User full name" with a dropdown set to "contains" and an empty input field. A blue "Add filter" button is visible. The user table has columns for "First name / Surname", "Email address", "City/town", "Country", "Last access", and "Edit". Each user row includes edit icons.

First name / Surname	Email address	City/town	Country	Last access	Edit
Administrador Sistema	admin@example.com	xativa	Spain	1 min	
Daniel profesor	profesor@example.com			Never	
María Estudiante	alumno@example.com			Never	

Usuarios inscritos en el aula creada

		Email address	Roles	Groups	course	Status
<input type="checkbox"/>	ME María Estudiante	alumno@example.com	Student -pencil	No groups	Never	Active   
<input type="checkbox"/>	Dp Daniel profesor	profesor@example.com	Student -pencil	No groups	Never	Active   
<input type="checkbox"/>	AS Administrador Sistema	admin@example.com	Teacher -pencil	No groups	1 min 9 secs	Active   

With selected users...

Choose...

 Enrol users

Daniel Vanaclocha Gomez