

# **PROJECTE INTERMODULAR**

## **DESPLEGAMENT D'APLICACIONS WEB**



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# Sumario

DESPLEGAMENT D'APLICACIONS WEB.....	1
1. URL, IP de cada vhost, nom de domini i credencials FTP, usuaris i passwords.....	2
2. Inventari de Serveis i Sessions.....	3
Apache.....	3
PHP.....	3
FTP.....	4
3. Evidències de Funcionament.....	4
3.1. Accés SSH i Seguretat.....	4
Titol de Benvinguda.....	4
PermitRootLogin desactivat.....	4
3.2. Servidor Web (HTTP/S).....	4
Producció.....	4
Aïllament de test.....	5
Backups protegits.....	5
4. Logs i monitorització.....	6
4.1. Logs d'accés.....	6
4.2. Logs de error.....	6
4.3. Logs d'accés a test.....	6
5. Automatització de Còpies de Seguretat.....	7
5.1. Codi de l'Script.....	7
5.2. Programació.....	7
6. Connexió FTP.....	9
6.1. Transferència d'arxius.....	9
6.2. Logs FTP.....	10

# 1. URL, IP de cada vhost, nom de domini i credencials FTP, usuaris i passwords

Concepte	Instància 1 (Producció i Backups)	Instància 2 (Entorn de Test)
IP Pública (Elastic IP)	3.228.192.104	35.153.64.247
Dominis (VHosts)	app.perlart.es backup.perlart.es	test.perlart.es
Usuari SSH (Admin)	ubuntu (amb clau .pem)	ubuntu (amb clau .pem)
Usuaris FTP	app (Web Principal) backups (Còpies)	test (Proves)
Credencials FTP	Usuari: app / Pass: app1234 Usuari: backups / Pass: backups1234	Usuari: test / Pass: test1234
Accés Web Restringit	URL: <a href="https://backup.perlart.es">https://backup.perlart.es</a> Usuari: professor Password: 1234	

## 2. Inventari de Serveis i Sessions

### Apache

```
ubuntu@ip-172-31-72-78:~$ apache2 -v
Server version: Apache/2.4.58 (Ubuntu)
Server built:   2025-08-11T11:10:09
ubuntu@ip-172-31-72-78:~$
```

### PHP

```
ubuntu@ip-172-31-72-78:~$ php -v
PHP 8.3.6 (cli) (built: Jul 14 2025 18:30:55) (NTS)
Copyright (c) The PHP Group
Zend Engine v4.3.6, Copyright (c) Zend Technologies
    with Zend OPcache v8.3.6, Copyright (c), by Zend Technologies
```

### FTP

```
ubuntu@ip-172-31-72-78:~$ vsftpd -v
vsftpd: version 3.0.5
```

### 3. Evidències de Funcionament

#### 3.1. Accés SSH i Seguretat

##### Titol de Benvinguda

```
batoi@batoi-SSD-2024:~$ ssh -i /home/batoi/.ssh/PI-KEY-PAIR-KIKE-GUILLEM.pem ubuntu@3.228.192.104
Benvingut a la instància de Servidor Web en AWS de Kike Navarro i Guillem Ordiñana
Welcome to Ubuntu 24.04.3 LTS (GNU/Linux 6.14.0-1017-aws x86_64)

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

System information as of Sun Nov 30 11:20:19 UTC 2025

System load:  0.0          Temperature:      -273.1 °C
Usage of /:   41.0% of 6.71GB Processes:           131
Memory usage: 30%          Users logged in:    1
Swap usage:   0%          IPv4 address for ens5: 172.31.72.78

Expanded Security Maintenance for Applications is not enabled.

2 updates can be applied immediately.
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

Last login: Sun Nov 30 11:17:08 2025 from 176.57.103.222
ubuntu@ip-172-31-72-78:~$
```

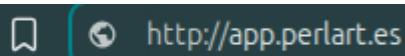
##### PermitRootLogin desactivat

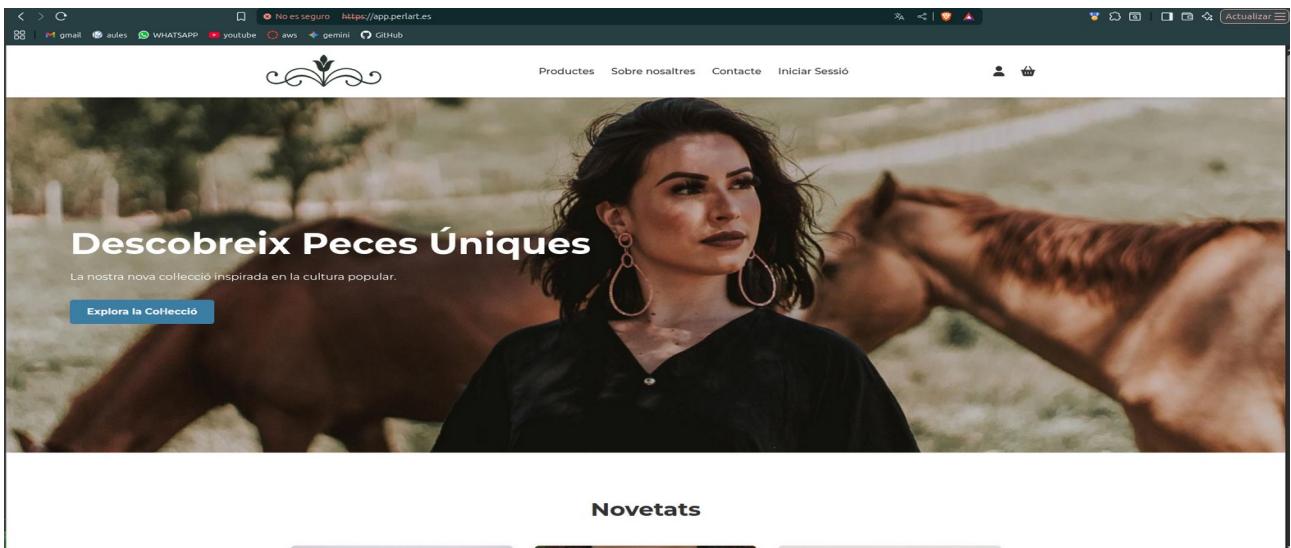
```
batoi@batoi-SSD-2024:~$ ssh -i /home/batoi/.ssh/PI-KEY-PAIR-KIKE-GUILLEM.pem root@3.228.192.104
Benvingut a la instància de Servidor Web en AWS de Kike Navarro i Guillem Ordiñana
root@3.228.192.104: Permission denied (publickey).

ubuntu@ip-172-31-72-78:~$ grep "PermitRootLogin" /etc/ssh/sshd_config
PermitRootLogin no
# the setting of "PermitRootLogin prohibit-password".
```

#### 3.2. Servidor Web (HTTP/S)

##### Producció





Del http, redirigeix al https quan hi accedim.

## Aïllament de test

A screenshot of a browser window showing the directory listing for "test.perlart.es". The title bar indicates the URL is "https://test.perlart.es". The page displays a table with columns for "Name", "Last modified", "Size", and "Description". A note at the top states "Apache/2.4.58 (Ubuntu) Server at test.perlart.es Port 443".

test.perlart.es és una instància diferent

## Backups protegits

A screenshot of a browser window showing a login dialog box for "backup.perlart.es". The dialog box contains fields for "Nombre de usuario" and "Contraseña", and buttons for "Cancelar" and "Iniciar sesión". The browser's address bar shows "http://backup.perlart.es". The status bar at the bottom indicates "No es seguro".

## Index of /

A screenshot of a browser window showing the directory listing for "backup.perlart.es". The title bar indicates the URL is "http://backup.perlart.es". The page displays a table with columns for "Name", "Last modified", "Size", and "Description". A note at the top states "Apache/2.4.58 (Ubuntu) Server at backup.perlart.es Port 80".

# 4. Logs i monitorització

## 4.1. Logs d'accés

The terminal window on the left shows Apache access logs from November 25, 2025. The logs detail various HTTP requests from different clients, including Mozilla Firefox, Google Chrome, and Safari, with details like IP address, timestamp, request URL, status code, and user agent.

The browser window on the right displays a website for 'Per L'Art - Joieria'. The page features a woman's face and the text 'Descobreix Peces Úniques'. It includes a button labeled 'Explora la Col·lecció' and a section titled 'Novetats'.

## 4.2. Logs de error

```
ubuntu@ip-172-31-72-78:~$ sudo cat /home/app/ftp/logs/error.log
[Tue Nov 25 15:44:26.072748 2025] [core:error] [pid 20346] (13)Permission denied: [client 185.180.140.138:55993] AH00035: access to / denied (filesystem path '/home/app/ftp') because search permissions are missing on a component of the path
[Tue Nov 25 15:46:31.962761 2025] [core:error] [pid 20347] (13)Permission denied: [client 213.0.87.212:37578] AH00035: access to / denied (filesystem path '/home/app/ftp') because search permissions are missing on a component of the path
[Tue Nov 25 15:46:32.230310 2025] [core:error] [pid 20347] (13)Permission denied: [client 213.0.87.212:37578] AH00035: access to /favicon.ico denied (filesystem path '/home/app/ftp') because search permissions are missing on a component of the path, referer: http://app.perlart.es/
[Tue Nov 25 15:46:58.156372 2025] [core:error] [pid 20348] (13)Permission denied: [client 213.0.87.212:40702] AH00035: access to / denied (filesystem path '/home/app/ftp') because search permissions are missing on a component of the path
[Tue Nov 25 15:46:58.385284 2025] [core:error] [pid 20348] (13)Permission denied: [client 213.0.87.212:40702] AH00035: access to /favicon.ico denied (filesystem path '/home/app/ftp') because search permissions are missing on a component of the path, referer: http://app.perlart.es/
[Tue Nov 25 15:54:31.391476 2025] [core:error] [pid 20349] (13)Permission denied: [client 204.76.203.212:50204] AH00035: access to / denied (filesystem path '/home/app/ftp') because search permissions are missing on a component of the path
[Tue Nov 25 15:59:57.951064 2025] [core:error] [pid 20538] (13)Permission denied: [client 213.0.87.212:46428] AH00035: access to / denied (filesystem path '/home/app/ftp') because search permissions are missing on a component of the path
[Tue Nov 25 15:59:58.222864 2025] [core:error] [pid 20538] (13)Permission denied: [client 213.0.87.212:46428] AH00035: access to /favicon.ico denied (filesystem path '/home/app/ftp') because search permissions are missing on a component of the path, referer: http://app.perlart.es/
[Tue Nov 25 16:00:09.499771 2025] [core:error] [pid 20539] (13)Permission denied: [client 213.0.87.212:48392] AH00035: access to / denied (filesystem path '/home/app/ftp') because search permissions are missing on a component of the path
[Tue Nov 25 16:00:09.743077 2025] [core:error] [pid 20539] (13)Permission denied: [client 213.0.87.212:48392] AH00035: access to /favicon.ico denied (filesystem path '/home/app/ftp') because search permissions are missing on a component of the path, referer: http://app.perlart.es/
[Tue Nov 25 17:04:26.767147 2025] [core:error] [pid 20542] (13)Permission denied: [client 213.0.87.212:33200] AH00035: access to / denied (filesystem path '/home/app/ftp') because search permissions are missing on a component of the path
[Tue Nov 25 17:04:27.044783 2025] [core:error] [pid 20542] (13)Permission denied: [client 213.0.87.212:33200] AH00035: access to /favicon.ico denied (filesystem path '/home/app/ftp') because search permissions are missing on a component of the path, referer: http://app.perlart.es/
[Tue Nov 25 17:04:27.742072 2025] [core:error] [pid 20542] (13)Permission denied: [client 213.0.87.212:33200] AH00035: access to / denied (filesystem path '/home/app/ftp') because search permissions are missing on a component of the path
```

## 4.3. Logs d'accés a test

```
ubuntu@ip-172-31-74-56:~$ sudo tail -n 5 /home/test/ftp/logs/access.log
80.82.77.202 - - [27/Nov/2025:19:44:38 +0000] "GET / HTTP/1.0" 400 625 "-" "-"
176.57.103.222 - - [30/Nov/2025:11:28:04 +0000] "GET / HTTP/1.1" 200 2242 "-" "Mozilla/5.0 (X11; Linux x86_64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/140.0.0.0 Safari/537.36"
176.57.103.222 - - [30/Nov/2025:11:28:04 +0000] "GET /icons/blank.gif HTTP/1.1" 200 453 "https://test.perlart.es/" "Mozilla/5.0 (X11; Linux x86_64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/140.0.0.0 Safari/537.36"
176.57.103.222 - - [30/Nov/2025:11:28:05 +0000] "GET /favicon.ico HTTP/1.1" 404 516 "https://test.perlart.es/" "Mozilla/5.0 (X11; Linux x86_64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/140.0.0.0 Safari/537.36"
176.57.103.222 - - [30/Nov/2025:11:28:07 +0000] "GET /?C=D;O=A HTTP/1.1" 200 607 "https://test.perlart.es/" "Mozilla/5.0 (X11; Linux x86_64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/140.0.0.0 Safari/537.36"
ubuntu@ip-172-31-74-56:~$
```

## 5. Automatització de Còpies de Seguretat

### 5.1. Codi de l'Script

```
#!/bin/bash

TIMESTAMP=$(date +"%Y%m%d_%H%M%S")
BACKUP_DIR="/home/backups/ftp/fitxers"
LOG_FILE="/var/log/backup_custom.log"

tar -czf "$BACKUP_DIR/app_full_backup_$TIMESTAMP.tar.gz" -C /home/app/ftp www data

if [ $? -eq 0 ]; then
    echo "[${TIMESTAMP}] Exit: Backup creat." >> $LOG_FILE
else
    echo "[${TIMESTAMP}] Error: Ha fallat la compressió." >> $LOG_FILE
fi

ls -tp "$BACKUP_DIR"/app_full_backup_*.tar.gz | grep -v '/$' | tail -n +8 | xargs -I {} rm -- "$BACKUP_DIR/{}"

chown backups:backups "$BACKUP_DIR"/*
chmod 644 "$BACKUP_DIR"/*
```

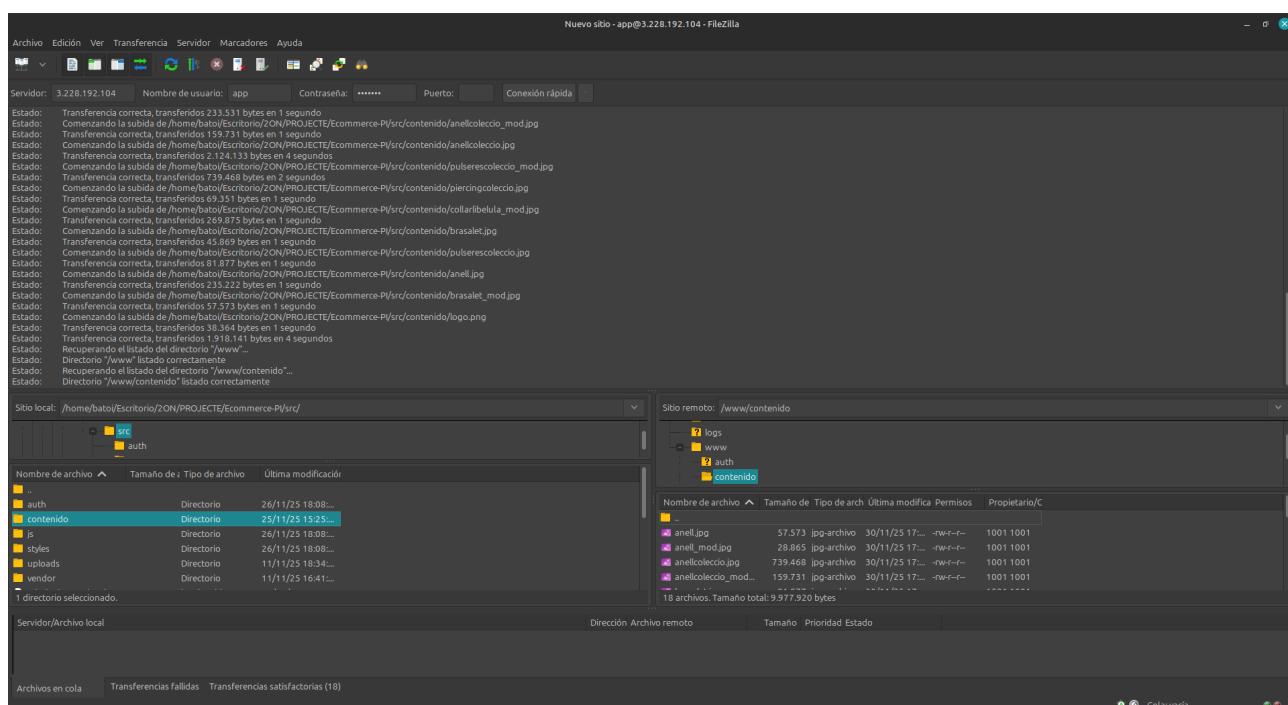
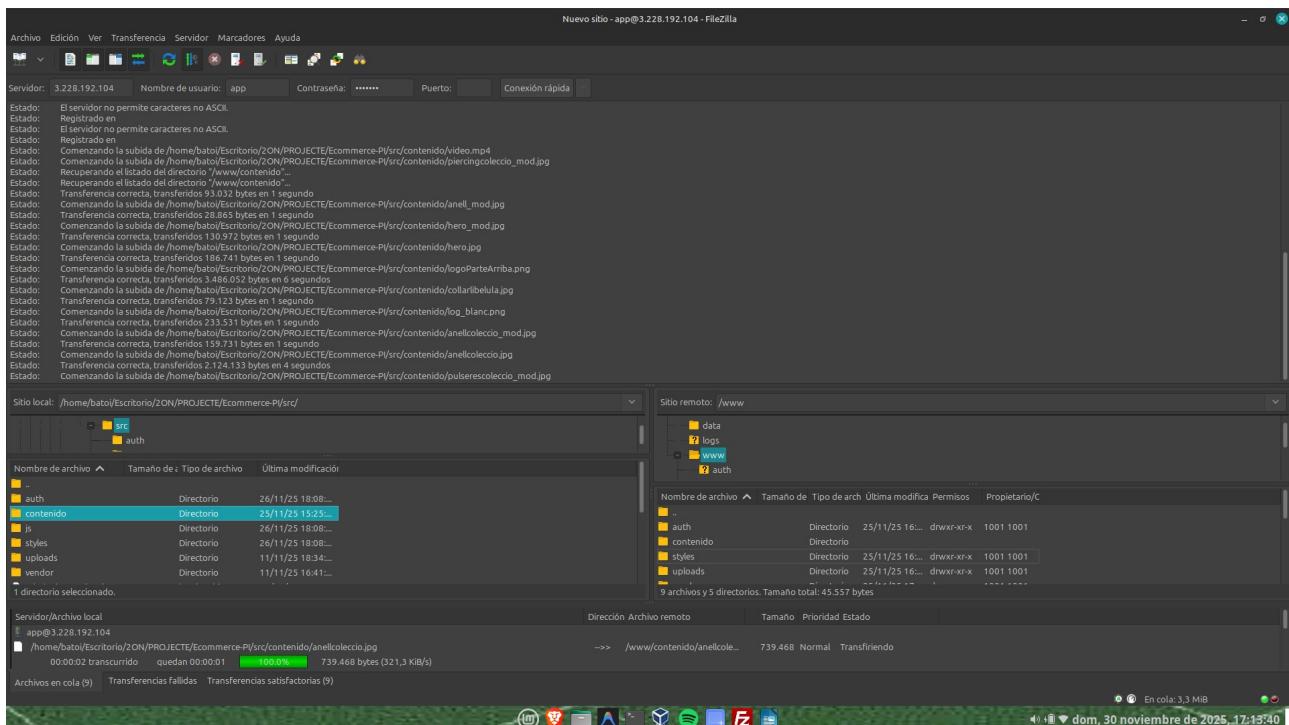
### 5.2. Programació

```
ubuntu@ip-172-31-72-78:~$ sudo crontab -l
# Edit this file to introduce tasks to be run by cron.
#
# Each task to run has to be defined through a single line
# indicating with different fields when the task will be run
# and what command to run for the task
#
# To define the time you can provide concrete values for
# minute (m), hour (h), day of month (dom), month (mon),
# and day of week (dow) or use '*' in these fields (for 'any').
#
# Notice that tasks will be started based on the cron's system
# daemon's notion of time and timezones.
#
# Output of the crontab jobs (including errors) is sent through
# email to the user the crontab file belongs to (unless redirected).
#
# For example, you can run a backup of all your user accounts
# at 5 a.m every week with:
# 0 5 * * 1 tar -zcf /var/backups/home.tgz /home/
#
# For more information see the manual pages of crontab(5) and cron(8)
#
# m h dom mon dow   command
0 3 * * * /usr/local/bin/backup_script.sh
```

```
ubuntu@ip-172-31-72-78:~$ ls -l /home/backups/ftp/fitxers
total 10684
-rw-r--r-- 1 backups backups 10940029 Nov 25 17:41 app_full_backup_20251125_174141.tar.gz
```

# 6. Connexió FTP

## 6.1. Transferència d'arxius



En la primera captura es veu com comença la pujada d'arxius (concretament la carpeta src/contenido) i en la segona es veu com finalitza i com la carpeta està en l'altra màquina.

## 6.2. Logs FTP

```
ubuntu@ip-172-31-72-78:~$ sudo grep "OK UPLOAD" /var/log/vsftpd.log | tail -n 10
Sun Nov 30 16:13:40 2025 [pid 1594] [app] OK UPLOAD: Client "::ffff:37.29.218.25
4", "/www/contenido/log_blanco.png", 2124133 bytes, 483.28Kbyte/sec
Sun Nov 30 16:13:40 2025 [pid 1593] [app] OK UPLOAD: Client "::ffff:37.29.218.25
4", "/www/contenido/anellcoleccio.jpg", 739468 bytes, 288.29Kbyte/sec
Sun Nov 30 16:13:41 2025 [pid 1594] [app] OK UPLOAD: Client "::ffff:37.29.218.25
4", "/www/contenido/pulserescoleccio_mod.jpg", 69351 bytes, 84.16Kbyte/sec
Sun Nov 30 16:13:42 2025 [pid 1593] [app] OK UPLOAD: Client "::ffff:37.29.218.25
4", "/www/contenido/piercingcoleccio.jpg", 269875 bytes, 200.51Kbyte/sec
Sun Nov 30 16:13:42 2025 [pid 1594] [app] OK UPLOAD: Client "::ffff:37.29.218.25
4", "/www/contenido/collarlibelula_mod.jpg", 45869 bytes, 59.65Kbyte/sec
Sun Nov 30 16:13:43 2025 [pid 1593] [app] OK UPLOAD: Client "::ffff:37.29.218.25
4", "/www/contenido/brasalete.jpg", 81877 bytes, 104.82Kbyte/sec
Sun Nov 30 16:13:43 2025 [pid 1594] [app] OK UPLOAD: Client "::ffff:37.29.218.25
4", "/www/contenido/pulserescoleccio.jpg", 235222 bytes, 199.55Kbyte/sec
Sun Nov 30 16:13:44 2025 [pid 1593] [app] OK UPLOAD: Client "::ffff:37.29.218.25
4", "/www/contenido/anell.jpg", 57573 bytes, 66.77Kbyte/sec
Sun Nov 30 16:13:44 2025 [pid 1594] [app] OK UPLOAD: Client "::ffff:37.29.218.25
4", "/www/contenido/brasalete_mod.jpg", 38364 bytes, 60.07Kbyte/sec
Sun Nov 30 16:13:49 2025 [pid 1593] [app] OK UPLOAD: Client "::ffff:37.29.218.25
4", "/www/contenido/logo.png", 1918141 bytes, 413.45Kbyte/sec
ubuntu@ip-172-31-72-78:~$
```

Ací comprove que efectivament els fitxers han sigut rebuts.