

#mooteu24

MOOTEU EUSKADI 2024



Moodle zerbitzariaren kudeaketa SYSADMINaren ikuspegitik

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Moodle zerbitzaria instalatu, mantendu eta eguneratzeko ardura duen sistema informatikoen administratzaileari zuzendutako hainbat aholku (esperientziatik ikastakoa)

Azpiegitura

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OpenSource soluzioak:
Birtualizazioa
eta
Backupak

PVE + PBS

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Proxmox Virtual Environment

Proxmox Virtual Environment is a complete open-source platform for enterprise virtualization. With the built-in web interface you can easily manage VMs and containers, software-defined storage and networking, high-availability clustering, and multiple out-of-the-box tools using a single solution.

[About Proxmox Virtual Environment](#)

Proxmox Backup Server

Proxmox Backup Server is an enterprise backup solution for backing up and restoring VMs, containers, and physical hosts. The open-source solution supports incremental backups, deduplication, Zstandard compression, and authenticated encryption.

[About Proxmox Backup Server](#)

Kopia azkarrek + leku gutxi okupatuta #bracten24

Backup Group ↑	Comment	Actions ↑	Backup Time ↑	Size	Encrypted
vm/154		V.	2024-04-21 01:13:02		Encrypted
+ vm/154/2024-03-31T00:08:11Z	Moodle...	V.	2024-03-31 01:08:11	340.00 GiB	Encrypted
+ vm/154/2024-04-06T23:08:57Z	Moodle...	V.	2024-04-07 01:08:57	340.00 GiB	Encrypted
+ vm/154/2024-04-13T23:13:00Z	Moodle...	V.	2024-04-14 01:13:00	340.00 GiB	Encrypted
+ vm/154/2024-04-16T23:04:17Z	Moodle...	V.	2024-04-17 01:04:17	340.00 GiB	Encrypted
+ vm/154/2024-04-17T23:07:55Z	Moodle...	V.	2024-04-18 01:07:55	340.00 GiB	Encrypted
+ vm/154/2024-04-18T23:04:35Z	Moodle...	V.	2024-04-19 01:04:35	340.00 GiB	Encrypted
+ vm/154/2024-04-20T23:13:02Z	Moodle...	V.	2024-04-21 01:13:02	340.00 GiB	Encrypted

Kopia azkarrek + leku gutxi okupatuta #bracte24

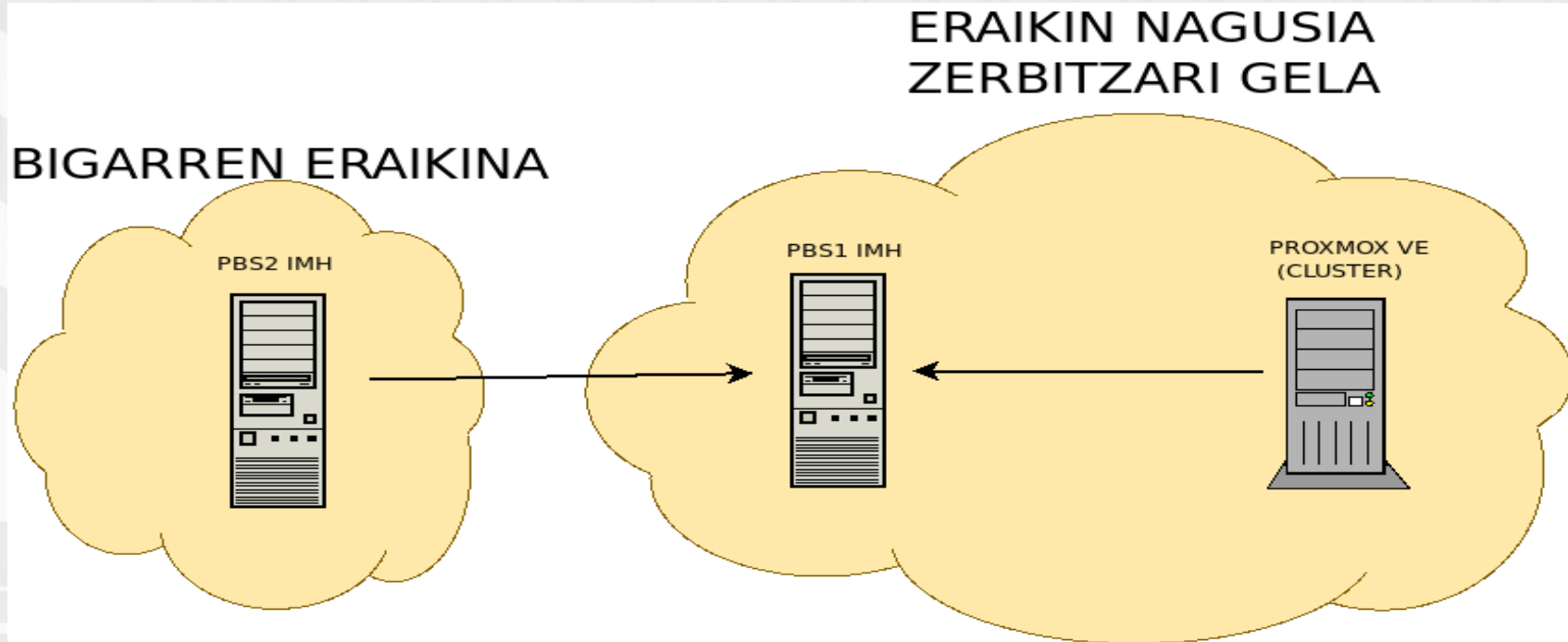
```
INFO: creating Proxmox Backup Server archive 'vm/154/2024-04-18T23:04:35Z'
INFO: enabling encryption
INFO: started backup task '2ae3054a-6d82-4338-8b97-0f46f23b4cb5'
INFO: resuming VM again
INFO: scsi0: dirty-bitmap status: OK (10.8 GiB of 40.0 GiB dirty)
INFO: scsi2: dirty-bitmap status: OK (73.8 GiB of 300.0 GiB dirty)
INFO: using fast incremental mode (dirty-bitmap), 84.7 GiB dirty of 340.0 GiB total
INFO: 0% (176.0 MiB of 84.7 GiB) in 3s, read: 58.7 MiB/s, write: 57.3 MiB/s
INFO: 1% (896.0 MiB of 84.7 GiB) in 13s, read: 72.0 MiB/s, write: 69.2 MiB/s
INFO: 2% (1.7 GiB of 84.7 GiB) in 23s, read: 86.0 MiB/s, write: 68.8 MiB/s
INFO: 3% (2.6 GiB of 84.7 GiB) in 39s, read: 54.2 MiB/s, write: 54.0 MiB/s
INFO: 4% (3.4 GiB of 84.7 GiB) in 55s, read: 54.2 MiB/s, write: 53.8 MiB/s
INFO: 98% (83.1 GiB of 84.7 GiB) in 26m 33s, read: 148.7 MiB/s, write: 46.7 MiB/s
INFO: 99% (83.9 GiB of 84.7 GiB) in 26m 38s, read: 160.0 MiB/s, write: 40.0 MiB/s
INFO: 100% (84.7 GiB of 84.7 GiB) in 26m 44s, read: 136.7 MiB/s, write: 64.7 MiB/s
INFO: Waiting for server to finish backup validation...
INFO: backup was done incrementally, reused 273.78 GiB (80%)
INFO: transferred 84.65 GiB in 1639 seconds (52.9 MiB/s)
INFO: adding notes to backup
INFO: Finished Backup of VM 154 (00:27:20)
```

Ransomware amesgaiztoa #mooteu24

Honelako egoera bati
erantzun ahal izateko
estrategia baten bila

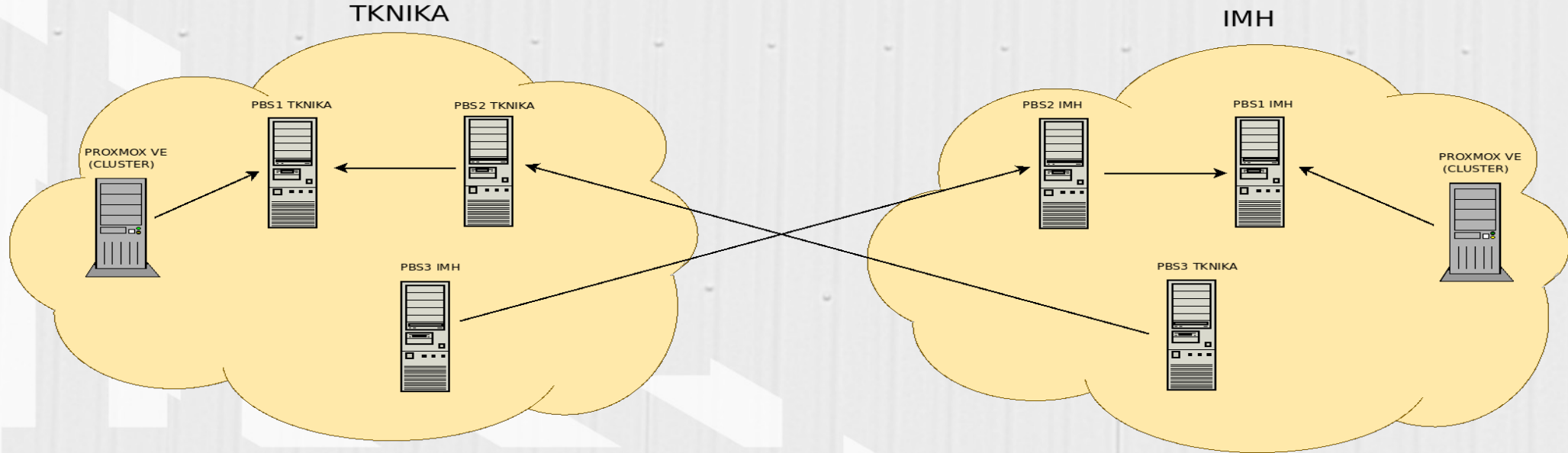
Hondamendi egoera

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Hondamendi egoerak

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Fitxategien backup-ak #mooteu24

- Gauero:
 - /var/moodledata karpeta
 - Moodle bidezko segurtasun-kopia automatizatuak (ikastaro bakoitzarena)

Fitxategien backupak: NAS #mooteu24

Orokorra Erabiltzaileak Ikastaroak Kalifikazioak Pluginak Itxura Zerbitzariak

Segurtasun-kopia automatizatuak

Aktiboa
backup | backup_auto_active

Gaituta Lehenetsitako balioa

Aukeratu segurtasun-kopia automatizatuak
Hau komando lerroan eskuz egin daiteke

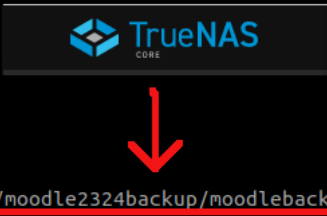
Programazioa
backup | backup_auto_weekdays

- Igandea
- Astelehena
- Asteartea
- Asteazkena
- Osteguna
- Ostirala
- Larunbata

```
root@moodle2324:~# df -h
```

	Tamaño	Usados	Disp	Uso%	Montado en
S.ficheros	4,9G	0	4,9G	0%	/dev
udev	995M	576K	994M	1%	/run
tmpfs	30G	15G	14G	52%	/
/dev/sda1	4,9G	0	4,9G	0%	/dev/shm
tmpfs	5,0M	0	5,0M	0%	/run/lock
tmpfs	1000K	133K	796K	15%	/backup
/dev/sda2	295G	143G	139G	51%	/var/moodledata
/dev/sdb1	3,0T	243G	2,8T	8%	/backup/moodlebackup
tmpfs	995M	4,0K	995M	1%	/run/user/0

```
root@moodle2324:~#
```



Ziber-Segurtasuna

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Debian eta Moodle Interneten atzigarri daudenez, bai ala bai eguneratuta egon behar dira.

Hortaz gain, geolokalizazio bidez sarrerako trafikoa mugatzen degu

Debian Eguneraketak #mooteu24

- Debian Zerbitzaria: Eguneraketa automatikoak unattended-upgrades paketea erabiliz
 - Unattended-Upgrade::Automatic-Reboot "true";
 - Unattended-Upgrade::Automatic-Reboot-Time "06:00";
 - Unattended-Upgrade::Mail "admin-helbidea@imh.eus";

Moodle Eguneraketak #mooteu24

To all registered Moodle Administrators,

Major and Minor Version Release

I'm writing today to let you know that Moodle 4.4, 4.3.4, 4.2.7 and 4.1.10 are now download channels; <https://download.moodle.org> and Git. The release notes for e following links:

- [Moodle 4.4 release notes](#)
- [Moodle 4.3.4 release notes](#)
- [Moodle 4.2.7 release notes](#)
- [Moodle 4.1.10 release notes](#)

Please note that 4.2.7 will be the last general support release for Moodle 4.2, however it will continue to be supported for security and data loss fixes until October 2024.

Security Fixes and Improvements

As well as new features, improvements, bug fixes and polishing, there are security fixes that you should be aware of. Details of the security issues that have been fixed in these releases are listed at the bottom of this email. As Moodle 4.4 is a major release, it includes the relevant fixes at release, so is also not affected by the listed issues.

Security fixes

A number of security related issues were resolved. Details of these issues will be released after a period of approximately one week to allow system administrators to safely update to the latest version.

Azken albisteak

[Gehitu eztabaidagai berria...](#)

api.k 23, 08:59(e)tan

Administratzailea IMH

[Apirilak 23, mantenu lanak Moodle zerbitzarian | 23 de abril, tareas de mantenimiento en el servidor Moodle](#)

mai.k 9, 08:44(e)tan

Moodle Eguneraketak

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- Proxmox: VMaren Snapshot bat egin
- Moodle: Script bidez (moodle_upgrade_LTS402.sh)
 - Moodle “maintenece mode” gaitu
 - Git bidez azken bertsioa deskargatu
 - Konfigurazioa eta pluginen fitxategiak beste nonbaitera mugitu
 - Bertsio zaharra ezabatu: `rm -rf /var/www/html/*`
 - Git bidez deskargatu duguna html karpeta jarri
 - Konfigurazio eta pluginen fitxategiak beraien lekuan jarri
 - Upgrade-a martxan jarri **interactive** moduan:
 - `/usr/bin/php /var/www/html/admin/cli/upgrade.php`
 - Moodle “maintenece mode” desgaitu
- Proxmox: VMaren Snapshota desegin

Internet Atzipena Geolokalizatua

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- Gure ikasle eta irakasleen geo-kokapena zein den badakigu
- HTTPS trafikoa baimendutako herrialdeetatik bakarrik

The screenshot shows a firewall rule configuration for ID 783. The rule is named "INTERNET --> MODLE ZERBITZARIA" and is of type "Standard ZTNA". It is configured with an incoming interface of "(port17)" and an outgoing interface of "DMZ (port9)". The source is set to "IMH_ACL_Spain", "IMH_ACL_Ikasleak_Atzerrian", and "IMH_ACL_Langleak_Atzerrian". The destination is "SARRERA". The rule is set to "ACCEPT" and is active "always".

ID	783
Name	INTERNET --> MODLE ZERBITZARIA
Type	Standard ZTNA
Incoming Interface	(port17)
Outgoing Interface	DMZ (port9)
Source	IMH_ACL_Spain IMH_ACL_Ikasleak_Atzerrian IMH_ACL_Langleak_Atzerrian
Negate Source	<input type="checkbox"/>
IP/MAC Based Access Control	<input type="checkbox"/>
Destination	SARRERA
Negate Destination	<input type="checkbox"/>
Schedule	always
Service	IMH-DMZ-Zerbitzarietara-Oinar
Action	ACCEPT DENY

SMTP: Mezu bidalketa

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- Moodlek mezu asko bidaltzen ditu baina ez da bidalketaren arrakastaz batera arduratzen
- Mezuak bidaltzerakoan arazoren bat egon bada, ez zaio inporta (konexio etenak, SMTP zerbitzariaren backup orduak)
- LOGetan ez badezu begiratzen, ez dezu honelako arazoei buruz alertarik jasoko

SMTP: SPAMMERa bihurtzeko arriskua

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- Programatutako ordu zehatzetan, mezu ezberdin asko bidaltzen ditu
- Ikasle kopuruaren arabera, oso segundu/minutu gutxitan ehundaka edo milaka email bidali ditzake.
- Interneteko SMTP nagusiek (Google, MS,) alertan jartzeko moduko portaera da.

SMTP: Postfix lokala

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- Moodle zerbitzarian Postfix instalatuko degu eta Moodlek berari utziko dio mezuak bidaltzeko ardura
 - Moodlentzat mezuen bidalketa azkarra eta berehalakoa izango da
 - Postfix arduratuko da mezu guztiak bidaltzeaz, eta arazoren bat aurkitzen badu behin eta berriro saiaturiko da mezua bidali arte
 - Postfix-en konfigurazioan hainbat gauza konfiguratu daitezke

SMTP: Postfix lokala

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- Moodle konfigurazioan hutsik laga SMTP ostalariaren konfigurazioa

SMTP ostalariak
smtphosts

- Postfix instalatu (`#apt get install postfix`) eta (`/etc/postfix/main.cf`) konfiguratu:
 - relayhost = zure-smtp-zerbitzaria
 - smtp_destination_concurrency_limit = 10 # *Domeinu berdinari konexio bakoitzean gehienez 10 mezu bidali*
 - smtp_destination_rate_delay = 10s # *Domeinu berdinari berriro mezuak bidali aurretik itxaron beharreko denbora*

Ikasturte berria

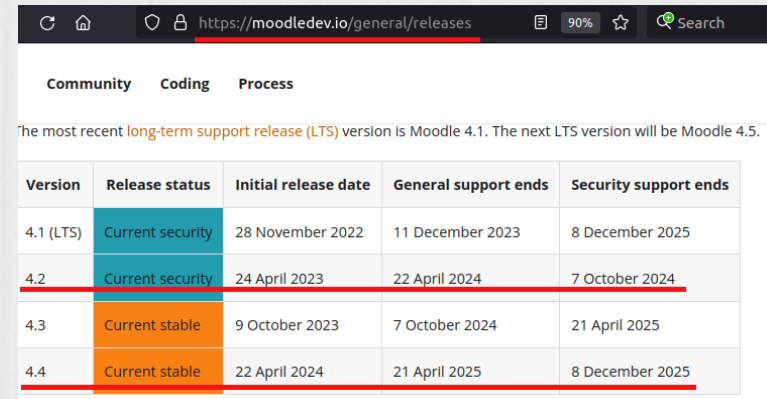
#moteu24

Ikasturte berria prestatzeko erabiltzen
degun estrategia:
Ikasturte berrirako zerbitzari berria sortu,
eta zerbitzari zaharra historiko moduan
itzalita gorde

Ikasturte berria

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- Proxmox: Aurtengo VM-aren kopia egin eta HW konfigurazioa egokitu: IP, MAC Address, izen berria (moodle2425.imh.eus)
- Debian Stable-ra eguneratu: Paketeen (PHP, mariadb, eta abar) bertsio berriak behar den bezala konfiguratu
- Hurrengo ikasturtean zehar erabiliko degun Moodle bertsioa aukeratu eta instalatu



The screenshot shows the Moodle release page with a table of versions. The table has five columns: Version, Release status, Initial release date, General support ends, and Security support ends. The rows are for versions 4.1 (LTS), 4.2, 4.3, and 4.4. Version 4.2 is highlighted with a red border, indicating it is the current LTS version.

Version	Release status	Initial release date	General support ends	Security support ends
4.1 (LTS)	Current security	28 November 2022	11 December 2023	8 December 2025
4.2	Current security	24 April 2023	22 April 2024	7 October 2024
4.3	Current stable	9 October 2023	7 October 2024	21 April 2025
4.4	Current stable	22 April 2024	21 April 2025	8 December 2025

Zerbitzaria Optimizatu #mooteu24

- MariaDB, Memcached, OPCache, PHP-FPM, konfigurazioa optimizatur, zerbitzariaren errendimendua asko hobetzen da
- Tknikako Moodle zerbitzarian gonbidatuentzat irekita dagoen ikastaroa:
<https://ikastaroak.tknika.eus/course/view.php?id=161>

Eskerrik asko Antton :-)

Ikasturte berriko lanak #mooteu24

Ikasturte berriko instantzian hainbat lan (errepikakor) egin behar ditugu:

- Zikloa bukatu duten ikasleak baja eman
- Ikastaroetan ikasleak baja eman (1. mailan)
- Ikasle berrien altak eman
- Ikasleak dagokien zikloan eta mailako ikastaroetan matrikulatu
- Ziklo koordinatzaile berriei kudeatzaile baimenak eman
-

Automatizazioa: MOOSH

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- Moosh (<https://moosh-online.com/commands/>) erabiliz gauza asko automatizatu daitezke, adibidez:
 - Ikastaroetan aurreko ikasturteko ikasleak desmatrikulatu (course-reset)
 - Ikastaroen hasiera eta bukaera datak ikasturte berrira egokitu (course-config-set)
 - Ikastaro bat ezabatu (course-delete)
 -
- Garatzaileak daraman erritmoaren arabera, gerta daiteke azken bertsioetarako egokituta ez egotea

Automatizazioa: API

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- Moodlen APIa: <https://moodledev.io/docs/4.4/apis>
- Norberaren zerbitzarian APIaren dokumentazioa eskuragarri: <https://moodle.zuredomeinua.eus/admin/webservice/documentation.php>
- Funtzio pila bat erabiltzeko aukera:
 - core_course_get_courses_by_field, core_course_get_categories, enrol_manual_enrol_users, core_user_delete_users, core_course_delete_courses, core_enrol_get_enrolled_users, ..., eta abar oso luze bat
 - Web interfazea erabiliz egin daitekeen gehiena API bidez egin daiteke.
- Garatzailea norbera izan daiteke, edo norberak kontrataturiko gertuko hornitzailea.

Dokumentazioa + Scriptak #mooteu24

<https://labor.eus/moodlemoot-imh>



**Moodle zerbitzariaren kudeaketa
SYSADMINaren ikuspegitik**

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ESKERRIK ASKO!

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