Examen

Ver dirección IP inicial

```
li@uss:~$ 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: ens18: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc fq_codel state UP group default qlen 1000
    link/ether bc:24:11:3b:4f:71 brd ff:ff:ff:ff:ff:ff
    altname enp0s18
    inet 192.168.1.208/24 metric 100 brd 192.168.1.255 scope global dynamic ens18
       valid_lft 602731sec preferred_lft 602731sec
    inet6 fe80::be24:11ff:fe3b:4f71/64 scope link
       valid_lft forever preferred_lft forever
```

Edita el archivo para modificar la dirección IP

- sudo nano /etc/netplan/50-cloud-init.yaml

```
network:
  version: 2
  ethernets:
    ens18:
      dhcp4: false
      addresses:
        - 192.168.1.53/24
      routes:
        - to: 0.0.0.0/0
          via: 192.168.1.1
      nameservers:
        addresses:
          - 1.1.1.1
          - 8.8.8.8
```

Cambios completados

```
li@uss:~$ 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: ens18: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc fq_codel state UP group default qlen 1000
    link/ether bc:24:11:3b:4f:71 brd ff:ff:ff:ff:ff:ff
    altname enp0s18
    inet 192.168.1.53/24 brd 192.168.1.255 scope global ens18
       valid_lft forever preferred_lft forever
    inet6 fe80::be24:11ff:fe3b:4f71/64 scope link
       valid_lft forever preferred_lft forever
```

Cambiar contraseña

```
li@uss:~$ passwd
Changing password for li.
Current password:
New password:
Retype new password:
passwd: password updated successfully
```

Actualizar el sistema

```
li@uss:~$ sudo apt update && sudo apt upgrade_
```

Conexión SSH desde el host local a la máquina virtual

```
li@uss: ~

RECORDATORIOS DE FLOTA
B1  No ejecutes comandos como root sin pensar dos veces.
B2  Los logs lo ven TODO.
B3  Backups diarios, drama cero.

FIN DEL CANAL DE ESTATUS

USS COMPETENCIAL
"Larga vida y prosperidad"
NOTAS DEL INGENIERO:
sudo find / -iname "archivo.txt"
sudo grep -R "texto" / 2>/dev/null

IMPORTANTE
MENSAJE FLOTA ESTELAR: Tu primera misión es la 47-A

li@uss:~$
```

Instalar netdiscover

```
li@uss:~$ sudo apt install netdiscover
```

- sudo netdiscover

```
Currently scanning: 172.16.104.0/16   |   Screen View: Unique Hosts

1866 Captured ARP Req/Rep packets, from 21 hosts.   Total size: 111798
_____________________________________________________________________________
  IP            At MAC Address     Count     Len  MAC Vendor / Hostname
-----------------------------------------------------------------------------
192.168.1.228   dc:45:46:0a:6b:a3     39    2340  Unknown vendor
192.168.1.176   c4:75:ab:25:ab:cf   1800  108000  Intel Corporate
192.168.1.1     cc:2d:21:2b:27:90      8     480  Tenda Technology Co.,Ltd.Dongguan branch
192.168.1.30    68:1d:ef:3c:80:bb      1      42  Shenzhen CYX Technology Co., Ltd.
```

1.

Copia todo el contenido del archivo MOTD

- sudo nano /etc/motd

```
GNU nano 7.2                    /etc/motd *
--------------------------------------------------------------------------------
|  LCARS TERMINAL INTERFACE                          SECTOR: /var/log            |
|
|    NODO: Lxin-Server NCC-0704
|    ROL : Servidor de Entrenamiento ASIR
|    MODO: Simulación de puente de mando
|    Cadate: Li Xinyuan
|    ID Grupo: 12138
|    Saludo LCARS: "Todos los sistemas operativos."
|    Fecha Estelar: $(date)
|
|    MODOS RÁPIDOS
|  01  Estado del núcleo warp      ->  sudo systemctl status
|  02  Sensores de red             ->  ip a / ss -tulnp
|  03  Registros de la Flota       ->  journalctl / tail -f /var/log/*
|  04  Cámaras de ingeniería       ->  top / htop
|
|    PROTOCOLO DE ACCESO
|  A1  Identidad de oficial:      lxin0704
|  A2  Código de autenticación:   «larga vida y prosperidad»
|
```

Cree un nuevo archivo, pegue todo el contenido copiado en él y conceda permisos de ejecución al archivo

- sudo nano /etc/update-motd.d/01-lcars
- sudo chmod +x /etc/update-motd.d/01-lcars

```
li@uss:~$ sudo nano /etc/update-motd.d/01-lcars
li@uss:~$ sudo chmod +x /etc/update-motd.d/01-lcars
```

Modifique el contenido

```
Fecha_Estelar=$(date +"%Y/%m/%d %H:%M:%S")

cat << "EOF"
--------------------------------------------------------------------------------
|  LCARS TERMINAL INTERFACE                          SECTOR: /var/log            |
|
|    NODO: Lxin-Server NCC-0704
|    ROL : Servidor de Entrenamiento ASIR
|    MODO: Simulación de puente de mando
|    Cadate: Li Xinyuan
|    ID Grupo: 12138
|                        "Todos los sistemas operativos."
|
|
```

```
-----------------------------------------------------

Cadate: Li Xinyuan
ID Grupo: 12138
EOF
echo "Fecha Estelar: $Fecha_Estelar"
cat << "EOF"

                "Todos los sistemas operativos."

                     --------------------

                 "Bienvenido, querido capitán."

                                |
                  \_            /;
                  `\~--._     //'
                   `//////\  \\/;'
                     ~/////\~\`)'
                         `~'  |
                         ;'_\'\
                       /~/ '" "'
                      `\/'
                   ________________________
                  / \$$$$$$$$$$$$$$$$$$$$$$\
                 (    \$$$$$$$$$k\;\&amp;j$$)
                 |\      \$$$$$$$,'    `^&lt;|
                 |$$\      \$$$;' __n,     `:$|
                 |$$$$\      \$$jT$$$$i. ,$$$|
                  |$$$$$\      \$$$$$$$;J$$$|
                  |$$$$$$$\      \$$$$$$$$$$|
                   \$$$$$$$$\      \$$$$$$$/
                    \$$$$$$$$$\      \$$$$/
                     \$$$$$$$$$$\     \$/
                      \$$$$$$$$$$$\    /
                       \$$$$$$$$$$$$\ /
                         \$$$$$$$$$$/
                           \$$$$$$/
                             \$$/
                              \/
EOF
```

Borre el contenido existente de /etc/motd

- sudo truncate -s 0 /etc/motd

```
li@uss:~$ sudo truncate -s 0 /etc/motd
```

Vuelve a iniciar sesión

```
USS COMPETENCIAL
"Larga vida y prosperidad"
----------
Cadate: Li Xinyuan
ID Grupo: 12138
Fecha Estelar: 2025/11/20 09:45:50

"Todos los sistemas operativos."

"Bienvenido, querido capitán."
```

2.

Instalar, habilitar y verificar Apache, MySQL y PHP:

- sudo apt update
- sudo apt install -y apache2 mysql-server php php-mysql libapache2-mod-php

```
li@uss:/$ sudo apt update
```

```
li@uss:/$ sudo apt install -y apache2 mysql-server php php-mysql libapache2-mod-php
```

- sudo mysql_secure_installation

```
li@uss:/$ sudo mysql_secure_installation

Securing the MySQL server deployment.

Connecting to MySQL using a blank password.
```

Habilitar:

- sudo systemctl start apache2
- sudo systemctl enable apache2

```
li@uss:/$ sudo systemctl start apache2
```

```
li@uss:/$ sudo systemctl enable apache2
Synchronizing state of apache2.service with SysV service script with /usr/lib/systemd/systemd-sysv-install.
Executing: /usr/lib/systemd/systemd-sysv-install enable apache2
```

- sudo systemctl start mysql
- sudo systemctl enable mysql

```
li@uss:/$ sudo systemctl start mysql
li@uss:/$ sudo systemctl enable mysql
Synchronizing state of mysql.service with SysV service script with /usr/lib/systemd/systemd-sysv-install
Executing: /usr/lib/systemd/systemd-sysv-install enable mysql
```

Verificación：

- sudo systemctl status apache2

```
li@uss:/$ sudo systemctl status apache2
● apache2.service - The Apache HTTP Server
     Loaded: loaded (/usr/lib/systemd/system/apache2.service; enabled; preset: enabled)
     Active: active (running) since Tue 2025-11-18 11:23:07 UTC; 12min ago
       Docs: https://httpd.apache.org/docs/2.4/
   Main PID: 10410 (apache2)
```

- sudo systemctl status mysql

```
li@uss:/$ sudo systemctl status mysql
● mysql.service - MySQL Community Server
     Loaded: loaded (/usr/lib/systemd/system/mysql.service; enabled; preset: enabled)
     Active: active (running) since Tue 2025-11-18 11:33:01 UTC; 3min 24s ago
   Main PID: 12310 (mysqld)
     Status: "Server is operational"
```

- sudo mysql -u root -p

```
li@uss:/$ sudo mysql -u root -p
Enter password:
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 10
Server version: 8.0.43-0ubuntu0.24.04.2 (Ubuntu)

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affiliates. Other names may be trademarks of their respective
owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql>
```

3.

Instalar y habilitar UFW（Si UFW no está instalado）

- sudo apt install ufw -y

```
li@uss:/$ sudo apt install ufw -y
```

- sudo ufw enable

```
li@uss:/$ sudo ufw enable
Command may disrupt existing ssh connections. Proceed with operation (y|n)? y
Firewall is active and enabled on system startup
```

Permitir SSH、HTTP、HTTPS

- sudo ufw allow ssh
- sudo ufw allow http
- sudo ufw allow https

```
li@uss:/$ sudo ufw allow ssh
Rule added
Rule added (v6)
li@uss:/$ sudo ufw allow http
Rule added
Rule added (v6)
li@uss:/$ sudo ufw allow https
Rule added
Rule added (v6)
```

Verificación

```
li@uss:/$ sudo ufw status
Status: active

To                         Action      From
--                         ------      ----
22/tcp                     ALLOW       Anywhere
80/tcp                     ALLOW       Anywhere
443                        ALLOW       Anywhere
22/tcp (v6)                ALLOW       Anywhere (v6)
80/tcp (v6)                ALLOW       Anywhere (v6)
443 (v6)                   ALLOW       Anywhere (v6)
```

Cree un archivo PHP para mostrar el estado del firewall en una página web

- sudo nano firewall_status.php

```
li@uss:/var/www/html$ sudo nano firewall_status.php
```

```
<!DOCTYPE html>
<html lang="es">
<head>
    <meta charset="UTF-8">
    <title>Estado del Escudo Deflector</title>
    <style>
```

```
            body { background-color: black; color: #00FFFF; font-family: Arial, sans-serif; }
            .panel { border: 2px solid #FF9999; padding: 20px; margin: 20px auto;
max-width: 600px; }
            h1, h2 { color: #FF9999; }
        </style>
    </head>
    <body>
        <div class="panel">
            <h1>USS Enterprise NCC-1701-D - Escudo Deflector</h1>
            <h2>Estado del Escudo</h2>
            <?php
            $ufw_status = shell_exec('sudo ufw status');
            echo "<pre>$ufw_status</pre>";
            ?>
            <p>Escudos levantados. Solo permitido SSH, HTTP y HTTPS.</p>
        </div>
    </body>
    </html>
```

```
  GNU nano 7.2                                    firewall_status.php
<!DOCTYPE html>
   <html lang="es">
   <head>
       <meta charset="UTF-8">
       <title>Estado del Escudo Deflector</title>
       <style>
           body { background-color: black; color: #00FFFF; font-family: Arial, sans-serif; }
           .panel { border: 2px solid #FF9999; padding: 20px; margin: 20px auto; max-width: 600px; }
           h1, h2 { color: #FF9999; }
       </style>
   </head>
   <body>
       <div class="panel">
           <h1>USS Enterprise NCC-1701-D - Escudo Deflector</h1>
           <h2>Estado del Escudo</h2>
           <?php
           $ufw_status = shell_exec('sudo ufw status');
           echo "<pre>$ufw_status</pre>";
           ?>
           <p>Escudos levantados. Solo permitido SSH, HTTP y HTTPS.</p>
       </div>
   </body>
   </html>
```

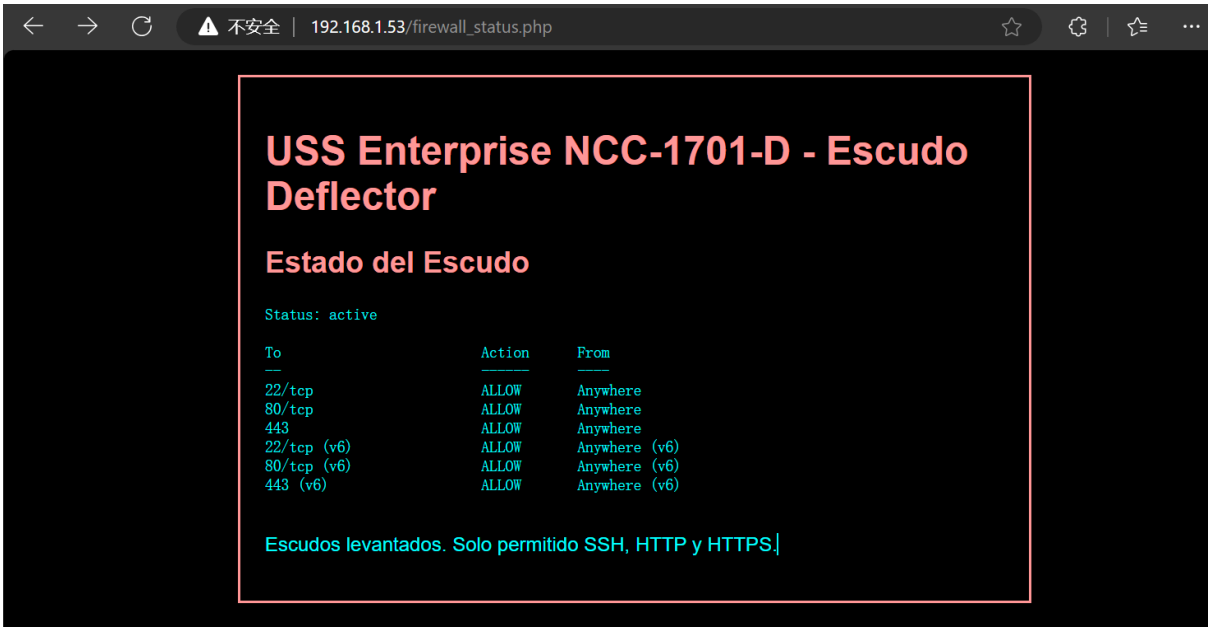
Conceder permiso a PHP para ejecutar el comando ufw status.

- sudo visudo

Añadir al final del documento: www-data ALL=(ALL) NOPASSWD: /usr/sbin/ufw status

```
# Allow members of group sudo to execute any command
%sudo   ALL=(ALL:ALL) ALL

# See sudoers(5) for more information on "@include" directives:

@includedir /etc/sudoers.d
 www-data ALL=(ALL) NOPASSWD: /usr/sbin/ufw status
```

Acceso al navegador: http://IP/firewall_status.php



4.

Instalar Docker

- sudo apt install -y apt-transport-https ca-certificates curl software-properties-common gnupg lsb-release

- curl -fsSL https://download.docker.com/linux/ubuntu/gpg | sudo gpg --dearmor -o /usr/share/keyrings/docker-archive-keyring.gpg

- echo "deb [arch=$(dpkg --print-architecture) signed-by=/usr/share/keyrings/docker-archive-keyring.gpg] https://download.docker.com/linux/ubuntu $(lsb_release -cs) stable" | sudo tee /etc/apt/sources.list.d/docker.list > /dev/null

- sudo apt update && sudo apt install -y docker-ce docker-ce-cli containerd.io docker-buildx-plugin docker-compose-plugin

Crear script de generación de datos de telemetría

- sudo nano telem_generator.php

```
li@uss:/var/www/html$ sudo nano telem_generator.php
```

```
<?php
  $telemetry = [
     'apache_status' => shell_exec('systemctl is-active apache2'),
     'mysql_status' => shell_exec('systemctl is-active mariadb'),
     'php_version' => phpversion(),
```

```
    'docker_version' => shell_exec('docker --version 2>/dev/null') ?: 'Docker
no instalado',
    'kernel_version' => shell_exec('uname -r'),
    'uptime' => shell_exec('uptime -p')
  ];

  header('Content-Type: application/json');
  echo json_encode($telemetry, JSON_PRETTY_PRINT);
  ?>
```

```
GNU nano 7.2                                    telem_generator.php
<?php
  $telemetry = [
      'apache_status' => shell_exec('systemctl is-active apache2'),
      'mysql_status' => shell_exec('systemctl is-active mariadb'),
      'php_version' => phpversion(),
      'docker_version' => shell_exec('docker --version 2>/dev/null') ?: 'Docker no instalado',
      'kernel_version' => shell_exec('uname -r'),
      'uptime' => shell_exec('uptime -p')
  ];

  header('Content-Type: application/json');
  echo json_encode($telemetry, JSON_PRETTY_PRINT);
  ?>
```

Crear página de visualización de telemetría:

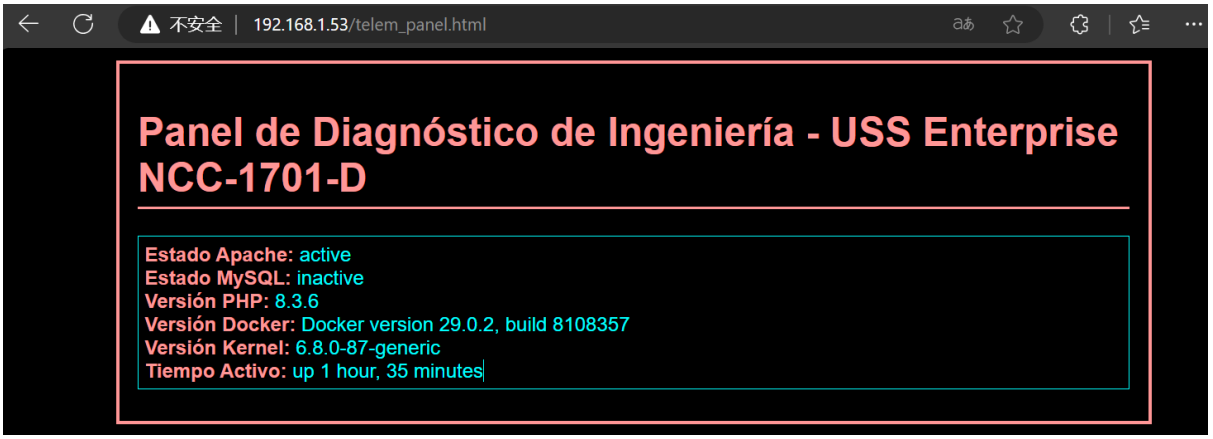
- sudo nano telem_panel.html

```
li@uss:/var/www/html$ sudo nano telem_panel.html
```

```
<!DOCTYPE html>
  <html lang="es">
  <head>
    <meta charset="UTF-8">
    <title>Panel de Diagnóstico de Ingeniería</title>
    <style>
      body { background-color: black; color: #00FFFF; font-family: Arial,
sans-serif; }
      .lcars-panel { border: 3px solid #FF9999; padding: 15px; margin: 10px
auto; max-width: 800px; }
      .lcars-title { color: #FF9999; border-bottom: 2px solid #FF9999;
padding-bottom: 5px; }
      .telemetry-item { margin: 10px 0; padding: 5px; border: 1px solid
#00FFFF; }
      .telemetry-label { color: #FF9999; font-weight: bold; }
    </style>
  </head>
  <body>
    <div class="lcars-panel">
```

```
        <h1 class="lcars-title">Panel de Diagnóstico de Ingeniería - USS
Enterprise NCC-1701-D</h1>
        <div id="telemetry-data" class="telemetry-item">
            Cargando datos de telemetría...
        </div>
    </div>

    <script>
        fetch('telem_generator.php')
            .then(response => response.json())
            .then(data => {
                const telemetryDiv = document.getElementById('telemetry-data');
                telemetryDiv.innerHTML = `
                    <div><span class="telemetry-label">Estado Apache:</span>
${data.apache_status}</div>
                    <div><span class="telemetry-label">Estado MySQL:</span>
${data.mysql_status}</div>
                    <div><span class="telemetry-label">Versión PHP:</span>
${data.php_version}</div>
                    <div><span class="telemetry-label">Versión Docker:</span>
${data.docker_version}</div>
                    <div><span class="telemetry-label">Versión Kernel:</span>
${data.kernel_version}</div>
                    <div><span class="telemetry-label">Tiempo Activo:</span>
${data.uptime}</div>
                `;
            })
            .catch(error => {
                document.getElementById('telemetry-data').innerHTML = `
                    <div class="error">Error al cargar telemetría:
${error.message}</div>
                `;
            });
    </script>
  </body>
  </html>
```

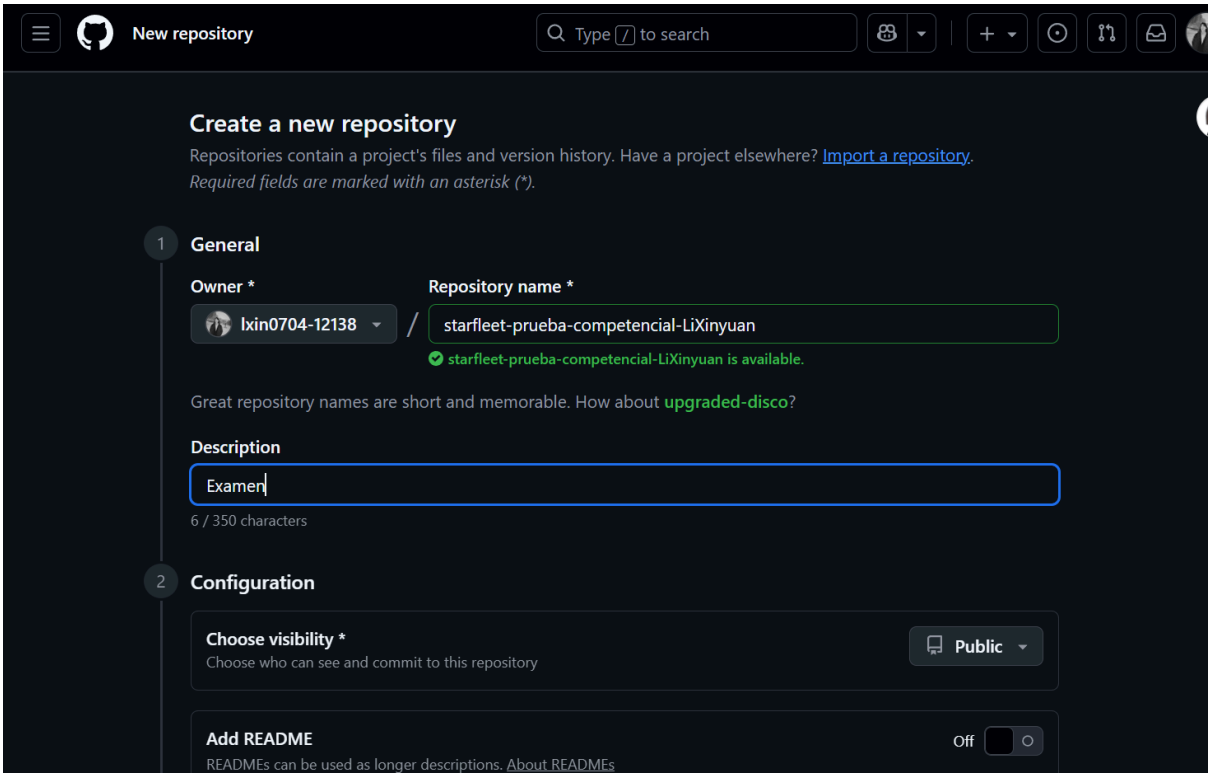
```
GNU nano 7.2                                    telem_panel.html
<!DOCTYPE html>
   <html lang="es">
   <head>
       <meta charset="UTF-8">
       <title>Panel de Diagnóstico de Ingeniería</title>
       <style>
           body { background-color: black; color: #00FFFF; font-family: Arial, sans-serif; }
           .lcars-panel { border: 3px solid #FF9999; padding: 15px; margin: 10px auto; max-width: 800px; }
           .lcars-title { color: #FF9999; border-bottom: 2px solid #FF9999; padding-bottom: 5px; }
           .telemetry-item { margin: 10px 0; padding: 5px; border: 1px solid #00FFFF; }
           .telemetry-label { color: #FF9999; font-weight: bold; }
       </style>
   </head>
   <body>
       <div class="lcars-panel">
           <h1 class="lcars-title">Panel de Diagnóstico de Ingeniería - USS Enterprise NCC-1701-D</h1>
           <div id="telemetry-data" class="telemetry-item">
               Cargando datos de telemetría...
           </div>
       </div>

       <script>
```



Acceder a través del navegador http://IP/telem_panel.html

5.

Crear repositorio GitHub e inicializar
https://github.com/



- mkdir starfleet-prueba-competencial-LiXinyuan

```
li@uss:/var/www/html$ cd
li@uss:~$ mkdir starfleet-prueba-competencial-LiXinyuan
li@uss:~$ cd starfleet-prueba-competencial-LiXinyuan
li@uss:~/starfleet-prueba-competencial-LiXinyuan$
```

- git init

```
li@uss:~/starfleet-prueba-competencial-LiXinyuan$ git init
hint: Using 'master' as the name for the initial branch. This default branch name
hint: is subject to change. To configure the initial branch name to use in all
hint: of your new repositories, which will suppress this warning, call:
hint:
hint:   git config --global init.defaultBranch <name>
hint:
hint: Names commonly chosen instead of 'master' are 'main', 'trunk' and
hint: 'development'. The just-created branch can be renamed via this command:
hint:
hint:   git branch -m <name>
Initialized empty Git repository in /home/li/starfleet-prueba-competencial-LiXinyuan/.git/
```

Copiar archivos al directorio

- cp /var/www/html/firewall_status.php .
- cp /var/www/html/telem_generator.php .
- cp /var/www/html/telem_panel.html .
- cp /etc/motd .

```
li@uss:~/starfleet-prueba-competencial-LiXinyuan$ cp /var/www/html/firewall_status.php .
li@uss:~/starfleet-prueba-competencial-LiXinyuan$ ls
firewall_status.php
li@uss:~/starfleet-prueba-competencial-LiXinyuan$ cp /var/www/html/telem_generator.php .
li@uss:~/starfleet-prueba-competencial-LiXinyuan$ cp /var/www/html/telem_panel.html .
li@uss:~/starfleet-prueba-competencial-LiXinyuan$ cp /etc/motd .
li@uss:~/starfleet-prueba-competencial-LiXinyuan$ ls
firewall_status.php  motd  telem_generator.php  telem_panel.html
```

Editar el archivo README.md

```
li@uss:~/starfleet-prueba-competencial-LiXinyuan$ sudo nano README.md
```

```
  GNU nano 7.2                                                  README.md *
Examen del cadate:Li Xinyuan
ID Grupo:12138
Saludo LCARS:"Todos los sistemas operativos."
Fecha: 2025/11/18
```

Configurar la información global del usuario

- git config --global user.name "lxin0704-12138"
- git config --global user.email "lxin0704@gmail.com"

```
li@uss:~/starfleet-prueba-competencial-LiXinyuan$ git config --global user.name "lxin0704-12138"
li@uss:~/starfleet-prueba-competencial-LiXinyuan$ git config --global user.email "lxin0704@gmail.com"
```

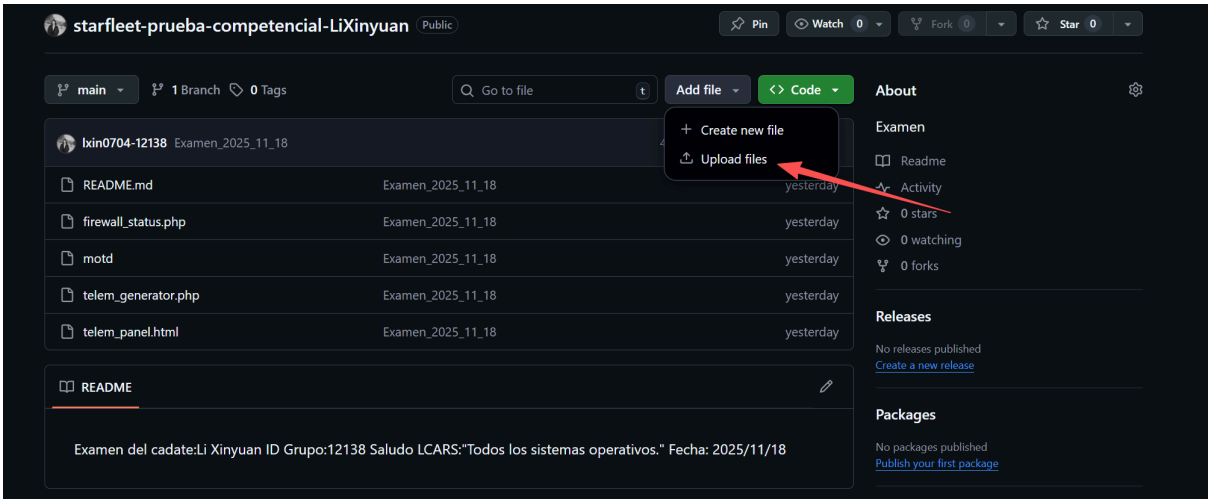
Confirmar en Git

- git add .
- git commit -m "Examen_2025_11_18"
- git branch -M main
- git remote add origin https://github.com/lxin0704-12138/starfleet-prueba-competencial-LiXinyuan.git
- git push -u origin main

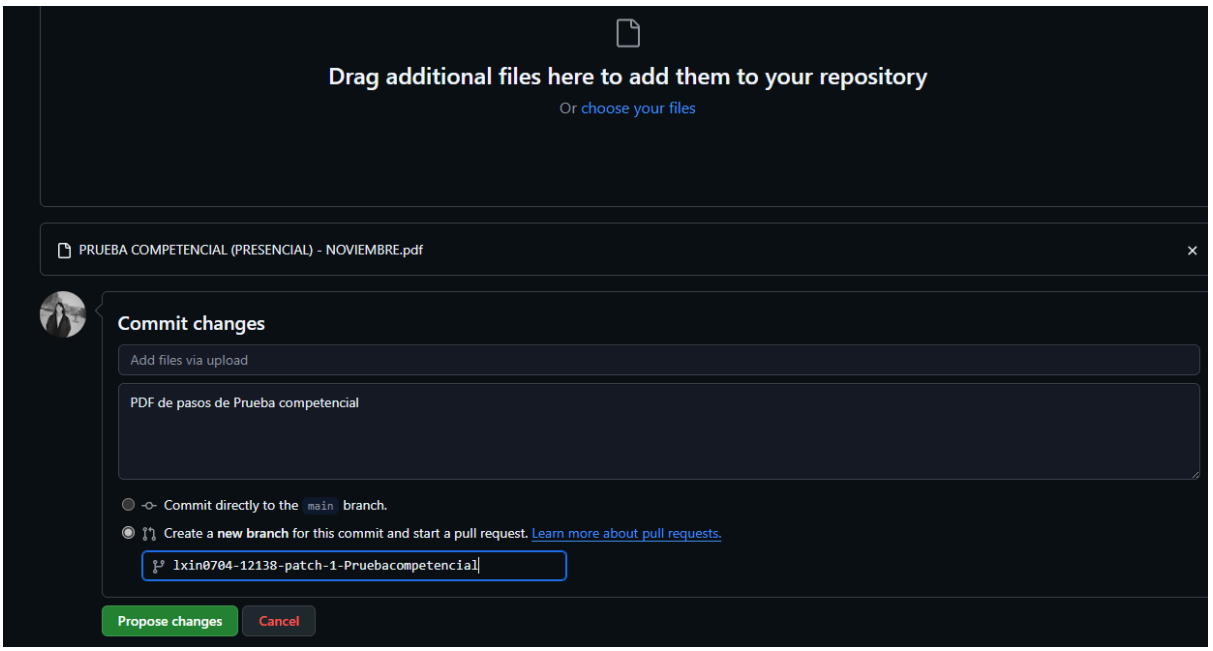
```
li@uss:~/starfleet-prueba-competencial-LiXinyuan$ git add .
li@uss:~/starfleet-prueba-competencial-LiXinyuan$ git commit -m "Examen_2025_11_18"
[master (root-commit) 4961789] Examen_2025_11_18
 5 files changed, 146 insertions(+)
 create mode 100644 README.md
 create mode 100644 firewall_status.php
 create mode 100644 motd
 create mode 100644 telem_generator.php
 create mode 100644 telem_panel.html
li@uss:~/starfleet-prueba-competencial-LiXinyuan$ git branch -M main
li@uss:~/starfleet-prueba-competencial-LiXinyuan$ git remote add origin https://github.com/lxin0704-12138/starfleet-pru
eba-competencial-LiXinyuan.git
li@uss:~/starfleet-prueba-competencial-LiXinyuan$ git push -u origin main
```

```
li@uss:~/starfleet-prueba-competencial-LiXinyuan$ git push -u origin main
Username for 'https://github.com': lxin0704-12138
Password for 'https://lxin0704-12138@github.com':
Enumerating objects: 7, done.
Counting objects: 100% (7/7), done.
Compressing objects: 100% (7/7), done.
Writing objects: 100% (7/7), 2.98 KiB | 2.98 MiB/s, done.
Total 7 (delta 0), reused 0 (delta 0), pack-reused 0
To https://github.com/lxin0704-12138/starfleet-prueba-competencial-LiXinyuan.git
 * [new branch]      main -> main
branch 'main' set up to track 'origin/main'.
```

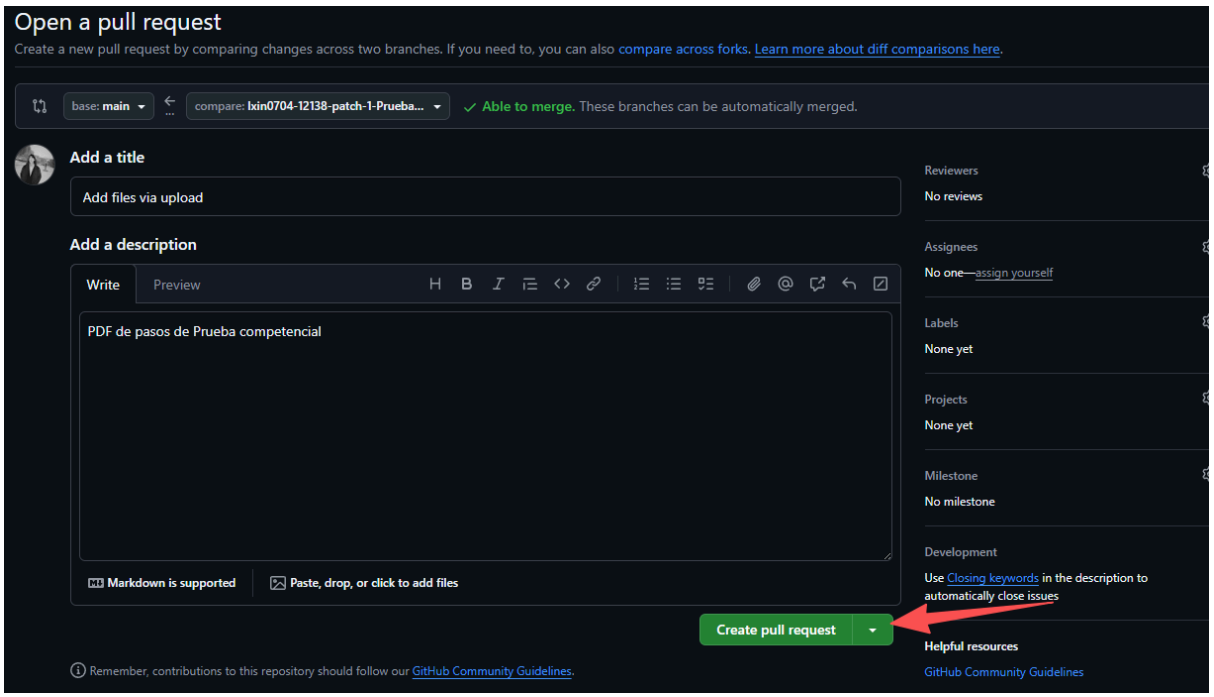
Inicie sesión en el sitio web de GitHub, abra el repositorio creado y seleccione ‘Subir archivos’ (subir archivos PDF, capturas de pantalla, etc.).



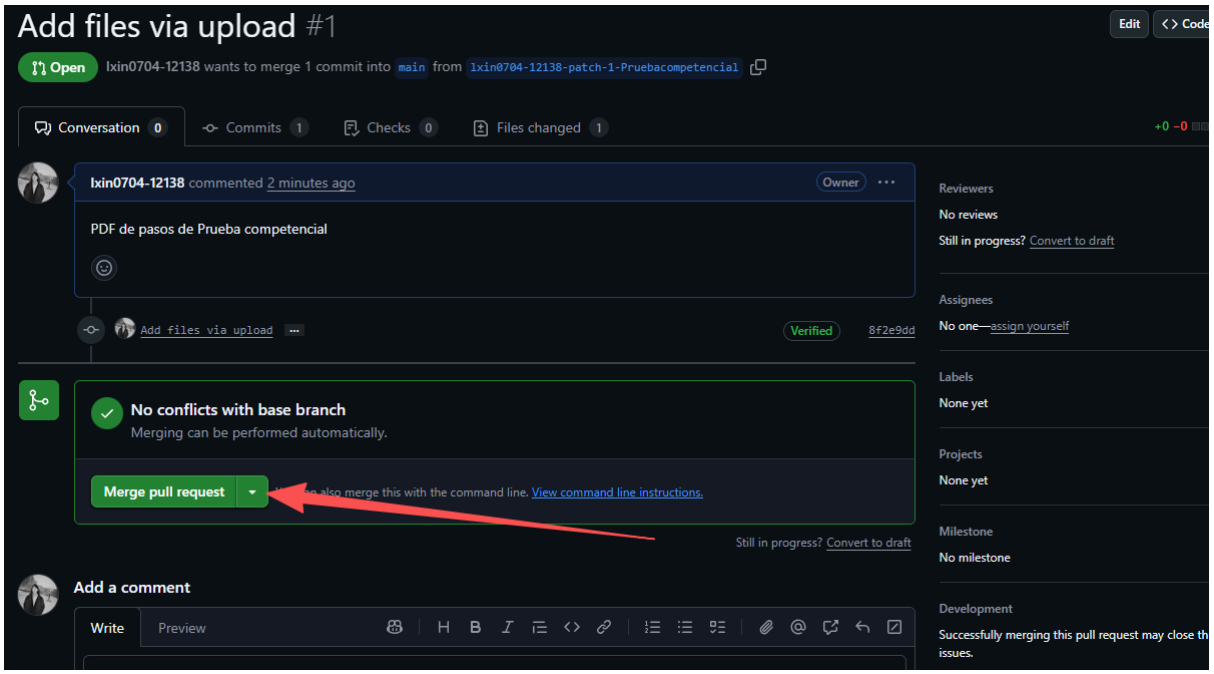
Después de subir los archivos, puede escribir una descripción de los mismos y optar por crear una rama. Una vez completado, haga clic en Propose change



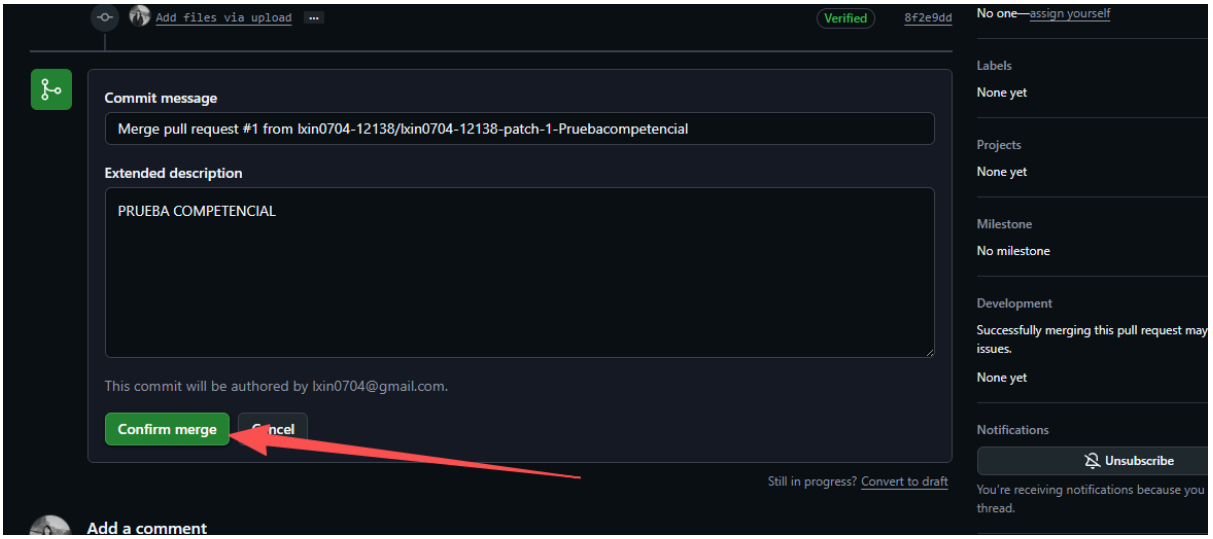
Haga clic en Create pull request



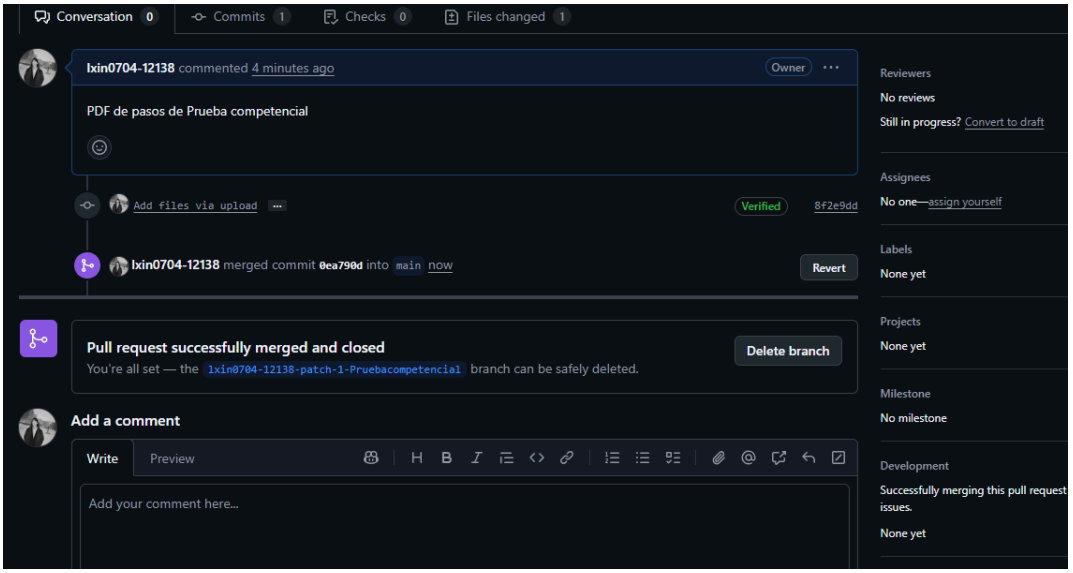
Haga clic en Merge pull request

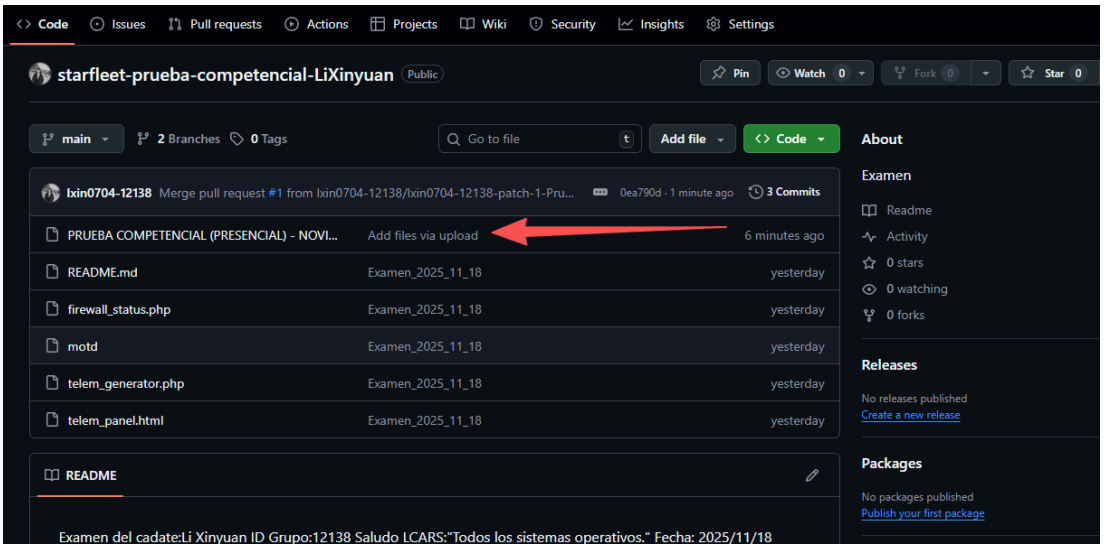


Haga clic en Confirm merge



Subida completada





Subir cosas nuevas

- git pull origin main --allow-unrelated-histories --no-rebase
- cltr + o; cltr + x
- git push -u origin main

```
li@uss:~/starfleet-prueba-competencial-LiXinyuan$ git pull origin main --allow-unrelated-histories --no-rebase
remote: Enumerating objects: 5, done.
remote: Counting objects: 100% (5/5), done.
remote: Compressing objects: 100% (4/4), done.
remote: Total 4 (delta 1), reused 0 (delta 0), pack-reused 0 (from 0)
Unpacking objects: 100% (4/4), 1.82 MiB | 50.00 KiB/s, done.
From https://github.com/lxin0704-12138/starfleet-prueba-competencial-LiXinyuan
 * branch            main       -> FETCH_HEAD
   7a32771..362227a  main       -> origin/main
Merge made by the 'ort' strategy.
 PRUEBA COMPETENCIAL (Actualizar).pdf | Bin 0 -> 1918010 bytes


Merge made by the 'ort' strategy.
 PRUEBA COMPETENCIAL (Actualizar).pdf | Bin 0 -> 1918010 bytes
 1 file changed, 0 insertions(+), 0 deletions(-)
 create mode 100644 PRUEBA COMPETENCIAL (Actualizar).pdf
```

Inicie el contenedor Apache.

- docker run -d --name apache_test -p 8080:80 httpd:latest

```
li@uss:~$ sudo docker run -d --name apache_test -p 8080:80 httpd:latest
Unable to find image 'httpd:latest' locally
latest: Pulling from library/httpd
5b4d5959fc75: Pull complete
0e4bc2bd6656: Pull complete
4742a9e996d1: Pull complete
4f4fb700ef54: Pull complete
87a14f083967: Pull complete
9cd0271fa751: Pull complete
Digest: sha256:f9b88f3f093d925525ec272bbe28e72967ffe1a40da813fe84df9fcb2fad3f30
Status: Downloaded newer image for httpd:latest
2ad92d6d52410032f5bf33264a7cee236a18cda3d8a55ad297330abc96a00a79
```

- sudo docker start apache_test
- sudo docker exec -it apache_test sh

Inicie el contenedor MariaDB

- docker run -d --name mariadb_test -e MYSQL_ROOT_PASSWORD=miSecreto -p 3306:3306 mariadb:latest

```
li@uss:~$ sudo docker run -d --name mariadb_test -e MYSQL_ROOT_PASSWORD=miSecreto -p 3306:3306 mariadb:latest
[sudo] password for li:
Unable to find image 'mariadb:latest' locally
latest: Pulling from library/mariadb
89a96bd3ecc9: Pull complete
20043066d3d5: Pull complete
ef8341999369: Pull complete
4a3db27d125a: Pull complete
aac04ba1e5c3: Pull complete
b1ac905c2366: Pull complete
f5769b646deb: Pull complete
c335bd5f0034: Pull complete
Digest: sha256:607835cd628b78e2876f6a586d0ec37b296c47683b31ef750002d3d17d3d8f7a
```

- sudo docker start mariadb_test
- sudo docker exec -it mariadb_test bash

Inicie el contenedor Alpine

- docker run -it --name alpine_test alpine:latest sh

Al salir de la terminal, es posible que este contenedor deje de estar en estado de ejecución:

- sudo docker start alpine_test
- sudo docker exec -it alpine_test sh

```
li@uss:~$ sudo docker run -it --name alpine_test alpine:latest sh
[sudo] password for li:
Unable to find image 'alpine:latest' locally
latest: Pulling from library/alpine
2d35ebdb57d9: Pull complete
Digest: sha256:4b7ce07002c69e8f3d704a9c5d6fd3053be500b7f1c69fc0d80990c2ad8dd412
Status: Downloaded newer image for alpine:latest
/ # exit
```

Implementar WordPress

- docker build -f dockerfile.wp -t mi-wordpress:1.0 .

```
li@uss:/home/secreto/wp/web$ docker build -f dockerfile.wp -t mi-wordpress:1.0 .
```

Introduzca el siguiente contenido

```
sudo docker run -d \
  --name wp \
  --network wp-net \
  -e WORDPRESS_DB_HOST=wp-db:3306 \
  -e WORDPRESS_DB_USER=wpuser \
  -e WORDPRESS_DB_PASSWORD=wppass \
  -e WORDPRESS_DB_NAME=wordpress \
  -p 8080:80 \
  -v wp-html:/var/www/html \
  mi-wordpress:1.0
```

```
li@uss:/home/secreto/wp/web$ docker run -d \
  --name wp \
  --network wp-net \
  -e WORDPRESS_DB_HOST=wp-db:3306 \
  -e WORDPRESS_DB_USER=wpuser \
  -e WORDPRESS_DB_PASSWORD=wppass \
  -e WORDPRESS_DB_NAME=wordpress \
  -p 8080:80 \
  -v wp-html:/var/www/html \
  mi-wordpress:1.0
```

Acceso en un navegador

- http://192.168.1.53:8080

Crea el directorio y los archivos del proyecto

- mkdir starfleet-pag_web
- cd starfleet-pag_web

```
li@uss:~$ mkdir starfleet-pag_web
li@uss:~$ cd starfleet-pag_web
```

- sudo nano index.html

```
li@uss:~/starfleet-web$ sudo nano index.html
```

```
<!DOCTYPE html>
<html lang="es">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>STARFLEET</title>
    <link
href="https://fonts.googleapis.com/css2?family=Orbitron:wght@400;700;900&
family=Rajdhani:wght@500&display=swap" rel="stylesheet">
    <style>
        * {
            margin: 0;
            padding: 0;
            box-sizing: border-box;
            font-family: 'Rajdhani', sans-serif;
        }
```

```
body {
    background: #000;
    background-image:
        linear-gradient(rgba(18, 16, 16, 0.9) 1px, transparent 1px),
        linear-gradient(90deg, rgba(18, 16, 16, 0.9) 1px, transparent 1px);
    background-size: 20px 20px;
    color: #05D9E8;
    min-height: 100vh;
    padding: 2rem;
    position: relative;
    overflow-x: hidden;
}

body::before {
    content: "";
    position: fixed;
    top: 0;
    left: 0;
    width: 100%;
    height: 100%;
    background: url("data:image/svg+xml,%3Csvg viewBox='0 0 200 200'
xmlns='http://www.w3.org/2000/svg'%3E%3Cfilter
id='noiseFilter'%3E%3CfeTurbulence type='fractalNoise'
baseFrequency='0.65' numOctaves='3'
stitchTiles='stitch'/%3E%3C/filter%3E%3Crect width='100%25'
height='100%25' filter='url(%23noiseFilter)' opacity='0.1'/%3E%3C/svg%3E");
    pointer-events: none;
    z-index: -1;
```

```
}

body::after {
    content: "";
    position: fixed;
    top: 0;
    left: 0;
    width: 100%;
    height: 100%;
    background: linear-gradient(to bottom, transparent 50%, rgba(0, 0, 0,
0.1) 50%);
    background-size: 100% 4px;
    animation: scanline 10s linear infinite;
    pointer-events: none;
    z-index: -1;
}

.container {
    max-width: 900px;
    margin: 0 auto;
    border: 1px solid #FF2A6D;
    border-radius: 8px;
    padding: 2.5rem;
    background:
        linear-gradient(135deg, rgba(17, 0, 32, 0.9), rgba(0, 20, 40, 0.8));
    box-shadow:
        0 0 30px rgba(255, 42, 109, 0.5),
        0 0 60px rgba(5, 217, 232, 0.3),
        inset 0 0 20px rgba(0, 0, 0, 0.8);
```

```
        position: relative;
        overflow: hidden;
        animation: borderGlitch 8s infinite;
    }

    .container::before {
        content: "";
        position: absolute;
        top: -2px;
        left: -2px;
        width: calc(100% + 4px);
        height: calc(100% + 4px);
        background: linear-gradient(45deg, #FF2A6D, #05D9E8, #D1FAFF,
#FF2A6D);
        background-size: 400%;
        z-index: -1;
        animation: gradientShift 15s ease infinite;
        border-radius: 10px;
        filter: blur(8px);
        opacity: 0.7;
    }

    .corner-light {
        position: absolute;
        width: 40px;
        height: 40px;
        border-radius: 50%;
        filter: blur(15px);
        z-index: 0;
```

```
}
.tl { top: 20px; left: 20px; background: #FF2A6D; }
.br { bottom: 20px; right: 20px; background: #05D9E8; }

h1 {
    font-family: 'Orbitron', sans-serif;
    color: #D1FAFF;
    font-size: 2.8rem;
    letter-spacing: 5px;
    margin-bottom: 2rem;
    position: relative;
    text-shadow:
        0 0 10px #05D9E8,
        0 0 20px #05D9E8,
        0 0 40px #05D9E8;
    animation: textGlitch 2s infinite;
}

h1::after {
    content: "NCC-1701-D / Flota Estelar";
    display: block;
    font-size: 1rem;
    color: #FF2A6D;
    margin-top: 10px;
    opacity: 0.8;
    letter-spacing: 2px;
    text-shadow: none;
    animation: pulse 3s infinite;
}
```

```
.data-list {
    display: grid;
    grid-template-columns: repeat(auto-fit, minmax(250px, 1fr));
    gap: 20px;
    margin-top: 2rem;
    position: relative;
    z-index: 1;
}

.data-card {
    padding: 1.5rem;
    border: 1px solid rgba(209, 250, 255, 0.3);
    border-radius: 6px;
    background: rgba(0, 10, 20, 0.6);
    backdrop-filter: blur(8px);
    position: relative;
    overflow: hidden;
    transition: all 0.4s cubic-bezier(0.175, 0.885, 0.32, 1.275);
    transform-style: preserve-3d;
}

.data-card::before {
    content: "";
    position: absolute;
    top: 0;
    left: 0;
    width: 100%;
    height: 100%;
```

```
        border: 1px solid transparent;
        background: linear-gradient(45deg, #FF2A6D, transparent, #05D9E8)
border-box;
        -webkit-mask: linear-gradient(#fff 0 0) padding-box, linear-gradient(#fff
0 0);
        -webkit-mask-composite: xor;
        mask-composite: exclude;
        opacity: 0;
        transition: opacity 0.3s ease;
    }

    .data-card:hover {
        transform: translateY(-8px) rotateX(5deg);
        box-shadow:
            0 15px 30px rgba(255, 42, 109, 0.2),
            0 0 20px rgba(5, 217, 232, 0.4);
        border-color: #05D9E8;
    }

    .data-card:hover::before {
        opacity: 1;
    }

    .data-card::after {
        content: "";
        position: absolute;
        top: 0;
        left: -100%;
        width: 100%;
```

```
    height: 100%;
    background: linear-gradient(90deg,
        transparent,
        rgba(209, 250, 255, 0.1),
        transparent);
    animation: dataFlow 3s infinite;
}

.data-label {
    font-family: 'Orbitron', sans-serif;
    color: #FF2A6D;
    font-weight: 700;
    font-size: 1.1rem;
    margin-bottom: 10px;
    display: block;
    letter-spacing: 1px;
}

.data-value {
    font-size: 1.3rem;
    color: #D1FAFF;
    text-shadow: 0 0 5px rgba(209, 250, 255, 0.5);
}

@keyframes scanline {
    0% { background-position: 0 0; }
    100% { background-position: 0 100%; }
}
@keyframes gradientShift {
```

```
    0% { background-position: 0% 50%; }
    50% { background-position: 100% 50%; }
    100% { background-position: 0% 50%; }
}
@keyframes borderGlitch {
    0%, 100% { border-color: #FF2A6D; }
    25% { border-color: #05D9E8; }
    50% { border-color: #D1FAFF; }
    75% { border-color: #FF2A6D; }
}
@keyframes textGlitch {
    0%, 100% { transform: translate(0); }
    5% { transform: translate(-2px, 2px); }
    10% { transform: translate(2px, -2px); }
}
@keyframes pulse {
    0%, 100% { opacity: 0.8; }
    50% { opacity: 1; }
}
@keyframes dataFlow {
    0% { left: -100%; }
    100% { left: 100%; }
}

@media (max-width: 768px) {
    h1 { font-size: 2rem; }
    .data-list { grid-template-columns: 1fr; }
    .data-card { padding: 1rem; }
}
```

```
    </style>
</head>
<body>
    <div class="container">
        <div class="corner-light tl"></div>
        <div class="corner-light br"></div>

        <h1>MODULO DE INGENIERÍA STARFLEET</h1>

        <div class="data-list">
            <div class="data-card">
                <span class="data-label">Estado del Sistema</span>
                <span class="data-value">Totalmente Operativo</span>
            </div>
            <div class="data-card">
                <span class="data-label">Número de Flota</span>
                <span class="data-value">1213810086</span>
            </div>
            <div class="data-card">
                <span class="data-label">Estado de la Misión</span>
                <span class="data-value">Completada</span>
            </div>
            <div class="data-card">
                <span class="data-label">ID Flota Estelar</span>
                <span class="data-value">NCC-1701-D</span>
            </div>
        </div>
    </div>
</body>
```

</html>

```
  GNU nano 7.2                                                                    index.html *
<!DOCTYPE html>
<html lang="es">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>STARFLEET</title>
    <link href="https://fonts.googleapis.com/css2?family=Orbitron:wght@400;700;900&family=Rajdhani:wght@500&display=swap" rel="stylesheet">
    <style>
        * {
            margin: 0;
            padding: 0;
            box-sizing: border-box;
            font-family: 'Rajdhani', sans-serif;
        }

        body {
            background: #000;
            background-image:
                linear-gradient(rgba(18, 16, 16, 0.9) 1px, transparent 1px),
                linear-gradient(90deg, rgba(18, 16, 16, 0.9) 1px, transparent 1px);
            background-size: 20px 20px;
            color: #05D9E8;
            min-height: 100vh;
            padding: 2rem;
            position: relative;
```

Crear un archivo Dockerfile

- sudo nano Dockerfile

```
li@uss:~/starfleet-web$ sudo nano Dockerfile
```

FROM nginx:alpine
COPY index.html /usr/share/nginx/html/index.html
EXPOSE 80

```
  GNU nano 7.2                                                                    Dockerfile
FROM nginx:alpine
COPY index.html /usr/share/nginx/html/index.html
EXPOSE 80
```

Construye la imagen

- sudo docker build -t lxin0704/starfleet-pagweb:1.0 .

```
li@uss:~/starfleet-pag_web$ sudo docker build -t lxin0704/starfleet-pagweb:1.0 .
[+] Building 1.5s (8/8) FINISHED                                                                                    docker:default
 => [internal] load build definition from Dockerfile                                                                          0.0s
 => => transferring dockerfile: 114B                                                                                          0.0s
 => [internal] load metadata for docker.io/library/nginx:alpine                                                               1.3s
 => [auth] library/nginx:pull token for registry-1.docker.io                                                                  0.0s
 => [internal] load .dockerignore                                                                                             0.0s
 => => transferring context: 2B                                                                                               0.0s
 => [internal] load build context                                                                                             0.0s
 => => transferring context: 8.60kB                                                                                           0.0s
 => [1/2] FROM docker.io/library/nginx:alpine@sha256:b3c656d55d7ad751196f21b7fd2e8d4da9cb430e32f646adcf92441b72f82b14          0.0s
 => => resolve docker.io/library/nginx:alpine@sha256:b3c656d55d7ad751196f21b7fd2e8d4da9cb430e32f646adcf92441b72f82b14          0.0s
 => CACHED [2/2] COPY index.html /usr/share/nginx/html/index.html                                                             0.0s
 => exporting to image                                                                                                        0.1s
 => => exporting layers                                                                                                       0.0s
 => => exporting manifest sha256:20ea3572b9a821028e69b93056a1398e851996b79100787cf9944f7b516f3002                             0.0s
 => => exporting config sha256:d744e386e83284e89399725fb0102c50b96df98d76b4c75d094de182464566 55                             0.0s
 => => exporting attestation manifest sha256:98599d69613c960ec4ac241648dff2877ad6f06bab8347ac539cf7b4ff41873a                 0.0s
 => => exporting manifest list sha256:5e1dccc754412d4307cb9b6c7fa87be585650e76eea1f66d34de3665a78411b8                        0.0s
 => => naming to docker.io/lxin0704/starfleet-pagweb:1.0                                                                      0.0s
 => => unpacking to docker.io/lxin0704/starfleet-pagweb:1.0                                                                   0.0s
```

Ejecutar contenedores personalizados

- sudo docker run -d --name starfleet-pag_web -p 8082:80 lxin0704/starfleet-pagweb:1.0

```
li@uss:~/starfleet-pag_web$ sudo docker run -d --name starfleet-pag_web -p 8082:80 lxin0704/starfleet-pagweb:1.0
21507200b4689f4668c9b2a9fc2455eca183d346538c5b73c077e35168b87a63
```

访问 http://192.168.1.53:8082

Inicie sesión en Docker Hub：

- sudo docker login -u …

```
li@uss:~/starfleet-web$ sudo docker login -u lxin0704

i Info → A Personal Access Token (PAT) can be used instead.
         To create a PAT, visit https://app.docker.com/settings


Password:

WARNING! Your credentials are stored unencrypted in '/root/.docker/config.json'.
Configure a credential helper to remove this warning. See
https://docs.docker.com/go/credential-store/

Login Succeeded
```

Subir imagen：

- sudo docker push lxin0704/starfleet-pagweb:1.0

```
li@uss:~/starfleet-pag_web$ sudo docker push lxin0704/starfleet-pagweb:1.0
The push refers to repository [docker.io/lxin0704/starfleet-pagweb]
8f6a6833e95d: Mounted from lxin0704/starfleet-module
194fa24e147d: Mounted from lxin0704/starfleet-module
3eaba6cd10a3: Mounted from lxin0704/starfleet-module
df413d6ebdc8: Mounted from lxin0704/starfleet-module
d9a55dab5954: Mounted from lxin0704/starfleet-module
ff8a36d5502a: Mounted from lxin0704/starfleet-module
46e1a1fbae3f: Pushed
5f782f44e0d4: Mounted from lxin0704/starfleet-module
2d35ebdb57d9: Mounted from lxin0704/starfleet-module
bdabb0d44271: Mounted from lxin0704/starfleet-module
1.0: digest: sha256:5e1dccc754412d4307cb9b6c7fa87be585650e76eea1f66d34de3665a78411b8 size: 856
```

De esta manera, se pueden utilizar otras máquinas:

- sudo docker pull lxin0704/starfleet-pagweb:1.0
- sudo docker run -d -p 80:80 lxin0704/starfleet-pagweb:1.0

Comprueba Apache2

- sudo systemctl status apache2
- sudo systemctl is-enabled apache2 # 查看是否开机启动（运行级别）

```
li@uss:~$ sudo systemctl status apache2
[sudo] password for li:
● apache2.service - The Apache HTTP Server
     Loaded: loaded (/usr/lib/systemd/system/apache2.service; enabled; preset: enabled)
     Active: active (running) since Fri 2025-11-21 07:36:59 UTC; 2h 48min ago
       Docs: https://httpd.apache.org/docs/2.4/
    Process: 952 ExecStart=/usr/sbin/apachectl start (code=exited, status=0/SUCCESS)
```

```
li@uss:~$ sudo systemctl is-enabled apache2
enabled
```

Comprueba mysql

- sudo systemctl status mysql
- sudo systemctl is-enabled mysql

```
li@uss:~$ sudo systemctl status mysql
● mysql.service - MySQL Community Server
     Loaded: loaded (/usr/lib/systemd/system/mysql.service; enabled; preset: enabled)
     Active: active (running) since Fri 2025-11-21 07:36:59 UTC; 2h 49min ago
    Process: 723 ExecStartPre=/usr/share/mysql/mysql-systemd-start pre (code=exited, status=0/SUCCESS)
   Main PID: 841 (mysqld)
```

```
li@uss:~$ sudo systemctl is-enabled mysql
enabled
```

Comprueba ufw

- sudo systemctl status ufw
- sudo systemctl is-enabled ufw

```
li@uss:~$ sudo systemctl status ufw
● ufw.service - Uncomplicated firewall
     Loaded: loaded (/usr/lib/systemd/system/ufw.service; enabled; preset: enabled)
     Active: active (exited) since Fri 2025-11-21 07:36:57 UTC; 2h 51min ago
       Docs: man:ufw(8)
    Process: 460 ExecStart=/usr/lib/ufw/ufw-init start quiet (code=exited, status=0/SUCCES
```

```
li@uss:~$ sudo systemctl is-enabled ufw
enabled
```

Telemetría del sistema:

Versión del núcleo

- uname -r

```
li@uss:~$ uname -r
6.8.0-87-generic
```

Tiempo de actividad del sistema

- uptime
- uptime -p

```
li@uss:~$ uptime
 10:29:07 up  2:52,  3 users,  load average: 0,00, 0,00, 0,00
li@uss:~$ uptime -p
up 2 hours, 52 minutes
```

Uso de memoria

- free -h

```
li@uss:~$ free -h
               total        used        free      shared  buff/cache   available
Mem:           1,9Gi       1,0Gi       119Mi       7,0Mi       1,0Gi       939Mi
Swap:          2,0Gi        12Ki       2,0Gi
```

Escaneo de Docker

- sudo docker ps -a

```
li@uss:~$ sudo docker ps -a
CONTAINER ID   IMAGE                          COMMAND                  CREATED          STATUS          PORTS                                          NAMES
21507200b468   lxin0704/starfleet-pagweb:1.0  "/docker-entrypoint.…"   33 minutes ago   Up 33 minutes   0.0.0.0:8082->80/tcp, [::]:8082->80/tcp        starfleet-pag_web
a587a02ac434   mi-wordpress:1.0               "docker-entrypoint.s…"   47 minutes ago   Created                                                        wp
5dc35b74c69d   lxin0704/starfleet-module:1.0  "/docker-entrypoint.…"   2 hours ago      Up 2 hours      0.0.0.0:8081->80/tcp, [::]:8081->80/tcp        starfleet_web
6f3747a9bc96   wordpress:latest               "docker-entrypoint.s…"   2 hours ago      Up 2 hours      0.0.0.0:8000->80/tcp, [::]:8000->80/tcp        wp_site
ad16a14d21b9   mariadb:latest                 "docker-entrypoint.s…"   2 hours ago      Up 2 hours      3306/tcp                                       wp_mariadb
294fad7b114d   mariadb:latest                 "docker-entrypoint.s…"   23 hours ago     Up 3 hours                                                     mariadb_test
b076eb634c62   alpine:latest                  "sh"                     23 hours ago     Up 3 hours                                                     alpine_test
2ad92d6d5241   httpd:latest                   "httpd-foreground"       23 hours ago     Up 2 hours      0.0.0.0:8080->80/tcp, [::]:8080->80/tcp        apache_test
```

Pagina para ver todos
http://192.168.1.53/servicio_status_panel.html

Buscar archivos cuyos nombres contengan “starfleet”

- sudo find / -iname "*starfleet*"

```
li@uss:~$ sudo find / -iname "*starfleet*"
/home/MISION_STARFLEET_OPS_PROTOCOL_47-A
/home/li/starfleet-web
/home/li/starfleet-pag_web
/home/li/starfleet-prueba-competencial-LiXinyuan
/var/lib/docker/volumes/starfleet-prueba-competencial-lixinyuan_wordpress_data
/var/lib/docker/volumes/starfleet-prueba-competencial-lixinyuan_db_data
/opt/enterprise/mensaje_starfleet_A43
```

Crear script para capitán

script (con menú):

- sudo nano capt_menu_script.sh

```
li@uss:~/starfleet-prueba-competencial-LiXinyuan$ sudo nano capt_menu_script.sh
```

```
#!/bin/bash
clear
echo "=== Menú de gestión de Starfleet ==="
echo "1) Servicios"
echo "2) Telemetría del sistema"
echo "3) Escaneo Docker"
echo "4) Explorador de archivos"
read -p "Selección: " choice

case $choice in
  1)
    echo "=== Servicios ==="
```

```
    systemctl status apache2
    systemctl status mysql
    systemctl status ufw
    ;;
  2)
    echo "=== Telemetría del sistema ==="
    uname -r
    uptime -p
    free -h
    ;;
  3)
    echo "=== Escaneo Docker ==="
    sudo docker ps -a
    ;;
  4)
    echo "=== Explorador de archivos ==="
    sudo find / -name "*starfleet*" 2>/dev/null
    ;;
  *)
    echo "selección no válida"
    ;;
esac
```

```
  GNU nano 7.2                                                    capt_menu_script.sh
#!/bin/bash
clear
echo "=== Menú de gestión de Starfleet ==="
echo "1) Servicios"
echo "2) Telemetría del sistema"
echo "3) Escaneo Docker"
echo "4) Explorador de archivos"
read -p "Selección: " choice

case $choice in
  1)
    echo "=== Servicios ==="
    systemctl status apache2
    systemctl status mysql
    systemctl status ufw
    ;;
  2)
    echo "=== Telemetría del sistema ==="
    uname -r
    uptime -p
    free -h
    ;;
  3)
    echo "=== Escaneo Docker ==="
    sudo docker ps -a
    ;;
  4)
    echo "=== Explorador de archivos ==="
    sudo find / -name "*starfleet*" 2>/dev/null
    ;;
  *)
    echo "selección no válida"
    ;;
esac
```

Conceder privilegios de ejecución:

- sudo chmod +x capt_menu_script.sh

```
li@uss:~/starfleet-prueba-competencial-LiXinyuan$ sudo chmod +x capt_menu_script.sh
```

Ejecución:

- ./capt_menu_script.sh

```
li@uss:~/starfleet-prueba-competencial-LiXinyuan$ ./capt_menu_script.sh
```

```
=== Menú de gestión de Starfleet ===
1) Servicios
2) Telemetría del sistema
3) Escaneo Docker
4) Explorador de archivos
Selección: 1
=== Servicios ===
● apache2.service - The Apache HTTP Server
     Loaded: loaded (/usr/lib/systemd/system/apache2.service; enabled; preset: enabled)
     Active: active (running) since Fri 2025-11-21 10:36:25 UTC; 56min ago
       Docs: https://httpd.apache.org/docs/2.4/
    Process: 4648 ExecStart=/usr/sbin/apachectl start (code=exited, status=0/SUCCESS)
   Main PID: 4652 (apache2)
      Tasks: 7 (limit: 2265)
     Memory: 38.6M (peak: 47.4M)
        CPU: 512ms
     CGroup: /system.slice/apache2.service
             ├─4652 /usr/sbin/apache2 -k start
             ├─4654 /usr/sbin/apache2 -k start
             ├─4655 /usr/sbin/apache2 -k start
             ├─4656 /usr/sbin/apache2 -k start
             ├─4657 /usr/sbin/apache2 -k start
             ├─4658 /usr/sbin/apache2 -k start
             └─4659 /usr/sbin/apache2 -k start
● mysql.service - MySQL Community Server
     Loaded: loaded (/usr/lib/systemd/system/mysql.service; enabled; preset: enabled)
     Active: active (running) since Fri 2025-11-21 07:36:59 UTC; 3h 56min ago
    Process: 723 ExecStartPre=/usr/share/mysql/mysql-systemd-start pre (code=exited, status=0/SUCCESS)
   Main PID: 841 (mysqld)
     Status: "Server is operational"
      Tasks: 37 (limit: 2265)
     Memory: 347.2M (peak: 438.1M swap: 8.9M swap peak: 8.9M)
        CPU: 54.209s
     CGroup: /system.slice/mysql.service
             └─841 /usr/sbin/mysqld

Warning: some journal files were not opened due to insufficient permissions.
● ufw.service - Uncomplicated firewall
     Loaded: loaded (/usr/lib/systemd/system/ufw.service; enabled; preset: enabled)
     Active: active (exited) since Fri 2025-11-21 07:36:57 UTC; 3h 56min ago
       Docs: man:ufw(8)
    Process: 460 ExecStart=/usr/lib/ufw/ufw-init start quiet (code=exited, status=0/SUCCESS)
   Main PID: 460 (code=exited, status=0/SUCCESS)
```

```
=== Menú de gestión de Starfleet ===
1) Servicios
2) Telemetría del sistema
3) Escaneo Docker
4) Explorador de archivos
Selección: 2
=== Telemetría del sistema ===
6.8.0-87-generic
up 4 hours, 30 minutes
              total        used        free      shared  buff/cache   available
Mem:          1,9Gi       1,0Gi       117Mi       6,6Mi       1,0Gi       934Mi
Swap:         2,0Gi        13Mi       2,0Gi
li@uss:~/starfleet-prueba-competencial-LiXinyuan$
```

```
=== Menú de gestión de Starfleet ===
1) Servicios
2) Telemetría del sistema
3) Escaneo Docker
4) Explorador de archivos
Selección: 3
=== Escaneo Docker ===
CONTAINER ID   IMAGE                          COMMAND                  CREATED        STATUS       PORTS                                      NA
MES
21507200b468   lxin0704/starfleet-pagweb:1.0  "/docker-entrypoint.…"   2 hours ago    Up 2 hours   0.0.0.0:8082->80/tcp, [::]:8082->80/tcp   st
arfleet-pag_web
a587a02ac434   mi-wordpress:1.0               "docker-entrypoint.s…"   2 hours ago    Created                                                 wp
5dc35b74c69d   lxin0704/starfleet-module:1.0  "/docker-entrypoint.…"   3 hours ago    Up 3 hours   0.0.0.0:8081->80/tcp, [::]:8081->80/tcp   st
arfleet_web
6f3747a9bc96   wordpress:latest               "docker-entrypoint.s…"   3 hours ago    Up 3 hours   0.0.0.0:8000->80/tcp, [::]:8000->80/tcp   wp
_site
ad16a14d21b9   mariadb:latest                 "docker-entrypoint.s…"   3 hours ago    Up 3 hours   3306/tcp                                   wp
_mariadb
294fad7b114d   mariadb:latest                 "docker-entrypoint.s…"   24 hours ago   Up 4 hours                                              ma
riadb_test
b076eb634c62   alpine:latest                  "sh"                     24 hours ago   Up 4 hours                                              al
pine_test
2ad92d6d5241   httpd:latest                   "httpd-foreground"       24 hours ago   Up 3 hours   0.0.0.0:8080->80/tcp, [::]:8080->80/tcp   ap
ache_test
```

```
=== Menú de gestión de Starfleet ===
1) Servicios
2) Telemetría del sistema
3) Escaneo Docker
4) Explorador de archivos
Selección: 4
=== Explorador de archivos ===
/home/li/starfleet-web
/home/li/starfleet-pag_web
/home/li/starfleet-prueba-competencial-LiXinyuan
/var/lib/docker/volumes/starfleet-prueba-competencial-lixinyuan_wordpress_data
/var/lib/docker/volumes/starfleet-prueba-competencial-lixinyuan_db_data
/opt/enterprise/mensaje_starfleet_A43
li@uss:~/starfleet-prueba-competencial-LiXinyuan$
```

```
=== Menú de gestión de Starfleet ===
1) Servicios
2) Telemetría del sistema
3) Escaneo Docker
4) Explorador de archivos
Selección: 5
selección no válida
li@uss:~/starfleet-prueba-competencial-LiXinyuan$
```

script（sin menu）

- sudo nano sin_menu_script.sh

```
li@uss:~/starfleet-prueba-competencial-LiXinyuan$ sudo nano sin_menu_script.sh
```

```
#!/bin/bash

if [ $# -ne 1 ]; then
  echo "Uso: $0 <1-4>"
  exit 1
fi

choice=$1
case $choice in
  1)
    echo "=== Servicios ==="
    systemctl status apache2
    systemctl status mysql
    systemctl status ufw
    ;;
  2)
    echo "=== Telemetría del sistema ==="
    uname -r
```

```
    uptime -p
    free -h
    ;;
  3)
    echo "=== Escaneo Docker ==="
    sudo docker ps -a
    ;;
  4)
    echo "=== Explorador de archivos ==="
    sudo find / -name "*starfleet*"
    ;;
  *)
    echo "selección no válida"
    ;;
esac
```

```
  GNU nano 7.2                                                    sin_menu_script.
#!/bin/bash

if [ $# -ne 1 ]; then
  echo "Uso: $0 <1-4>"
  exit 1
fi

choice=$1
case $choice in
  1)
    echo "=== Servicios ==="
    systemctl status apache2
    systemctl status mysql
    systemctl status ufw
    ;;
  2)
    echo "=== Telemetría del sistema ==="
    uname -r
    uptime -p
    free -h
    ;;
  3)
    echo "=== Escaneo Docker ==="
    sudo docker ps -a
    ;;
  4)
    echo "=== Explorador de archivos ==="
    sudo find / -name "*starfleet*"
    ;;
  *)
    echo "selección no válida"
    ;;
esac
```

Conceder privilegios de ejecución:

- sudo chmod +x sin_menu_script.sh

```
li@uss:~/starfleet-prueba-competencial-LiXinyuan$ sudo chmod +x sin_menu_script.sh
```

Ejecución:

- ./sin_menu_script.sh 1

```
li@uss:~/starfleet-prueba-competencial-LiXinyuan$ ./sin_menu_script.sh 1
=== Servicios ===
● apache2.service - The Apache HTTP Server
     Loaded: loaded (/usr/lib/systemd/system/apache2.service; enabled; preset: enabled)
     Active: active (running) since Fri 2025-11-21 10:36:25 UTC; 1h 23min ago
       Docs: https://httpd.apache.org/docs/2.4/
    Process: 4648 ExecStart=/usr/sbin/apachectl start (code=exited, status=0/SUCCESS)
   Main PID: 4652 (apache2)
      Tasks: 7 (limit: 2265)
     Memory: 38.6M (peak: 47.4M)
        CPU: 547ms
     CGroup: /system.slice/apache2.service
             ├─4652 /usr/sbin/apache2 -k start
             ├─4654 /usr/sbin/apache2 -k start
             ├─4655 /usr/sbin/apache2 -k start
             ├─4656 /usr/sbin/apache2 -k start
             ├─4657 /usr/sbin/apache2 -k start
             ├─4658 /usr/sbin/apache2 -k start
             └─4659 /usr/sbin/apache2 -k start
● mysql.service - MySQL Community Server
     Loaded: loaded (/usr/lib/systemd/system/mysql.service; enabled; preset: enabled)
     Active: active (running) since Fri 2025-11-21 07:36:59 UTC; 4h 23min ago
    Process: 723 ExecStartPre=/usr/share/mysql/mysql-systemd-start pre (code=exited, status=0/SUCCESS)
   Main PID: 841 (mysqld)
     Status: "Server is operational"
      Tasks: 37 (limit: 2265)
     Memory: 347.2M (peak: 438.1M swap: 8.9M swap peak: 8.9M)
        CPU: 1min 1.137s
     CGroup: /system.slice/mysql.service
             └─841 /usr/sbin/mysqld

Warning: some journal files were not opened due to insufficient permissions.
● ufw.service - Uncomplicated firewall
     Loaded: loaded (/usr/lib/systemd/system/ufw.service; enabled; preset: enabled)
     Active: active (exited) since Fri 2025-11-21 07:36:57 UTC; 4h 23min ago
       Docs: man:ufw(8)
    Process: 460 ExecStart=/usr/lib/ufw/ufw-init start quiet (code=exited, status=0/SUCCESS)
   Main PID: 460 (code=exited, status=0/SUCCESS)
        CPU: 27ms

Warning: some journal files were not opened due to insufficient permissions.
```

- ./sin_menu_script.sh 2

```
li@uss:~/starfleet-prueba-competencial-LiXinyuan$ sudo nano sin_menu_script.sh
li@uss:~/starfleet-prueba-competencial-LiXinyuan$ ./sin_menu_script.sh 2
=== Telemetría del sistema ===
6.8.0-87-generic
up 4 hours, 25 minutes
               total        used        free      shared  buff/cache   available
Mem:           1,9Gi       1,0Gi       143Mi       6,6Mi       1,0Gi       959Mi
Swap:          2,0Gi        13Mi       2,0Gi
```

- ./sin_menu_script.sh 3

```
li@uss:~/starfleet-prueba-competencial-LiXinyuan$ ./sin_menu_script.sh 3
=== Escaneo Docker ===
CONTAINER ID   IMAGE                          COMMAND                  CREATED        STATUS       PORTS                                       NA
MES
21507200b468   lxin0704/starfleet-pagweb:1.0  "/docker-entrypoint.…"   2 hours ago    Up 2 hours   0.0.0.0:8082->80/tcp, [::]:8082->80/tcp   st
arfleet-pag_web
a587a02ac434   mi-wordpress:1.0               "docker-entrypoint.s…"   2 hours ago    Created                                                  wp
5dc35b74c69d   lxin0704/starfleet-module:1.0  "/docker-entrypoint.…"   4 hours ago    Up 4 hours   0.0.0.0:8081->80/tcp, [::]:8081->80/tcp   st
arfleet_web
6f3747a9bc96   wordpress:latest               "docker-entrypoint.s…"   4 hours ago    Up 4 hours   0.0.0.0:8000->80/tcp, [::]:8000->80/tcp   wp
_site
ad16a14d21b9   mariadb:latest                 "docker-entrypoint.s…"   4 hours ago    Up 4 hours   3306/tcp                                   wp
_mariadb
294fad7b114d   mariadb:latest                 "docker-entrypoint.s…"   25 hours ago   Up 4 hours                                              ma
riadb_test
b076eb634c62   alpine:latest                  "sh"                     25 hours ago   Up 4 hours                                              al
pine_test
2ad92d6d5241   httpd:latest                   "httpd-foreground"       25 hours ago   Up 4 hours   0.0.0.0:8080->80/tcp, [::]:8080->80/tcp   ap
ache_test
```

- ./sin_menu_script.sh 4

```
li@uss:~/starfleet-prueba-competencial-LiXinyuan$ ./sin_menu_script.sh 4
=== Explorador de archivos ===
/home/li/starfleet-web
/home/li/starfleet-pag_web
/home/li/starfleet-prueba-competencial-LiXinyuan
/var/lib/docker/volumes/starfleet-prueba-competencial-lixinyuan_wordpress_data
/var/lib/docker/volumes/starfleet-prueba-competencial-lixinyuan_db_data
/opt/enterprise/mensaje_starfleet_A43
```

- ./sin_menu_script.sh 5

```
li@uss:~/starfleet-prueba-competencial-LiXinyuan$ ./sin_menu_script.sh 5
selección no válida
```

En situaciones reales, los problemas sistémicos suelen estar ocultos en detalles no expresados. Aunque el aprendizaje en el aula sigue siendo fundamental, explorar activamente los sistemas cultiva nuestra perspicacia, refuerza los conocimientos adquiridos y ayuda a descubrir vulnerabilidades latentes, oportunidades de optimización o funcionalidades ocultas dentro del sistema.