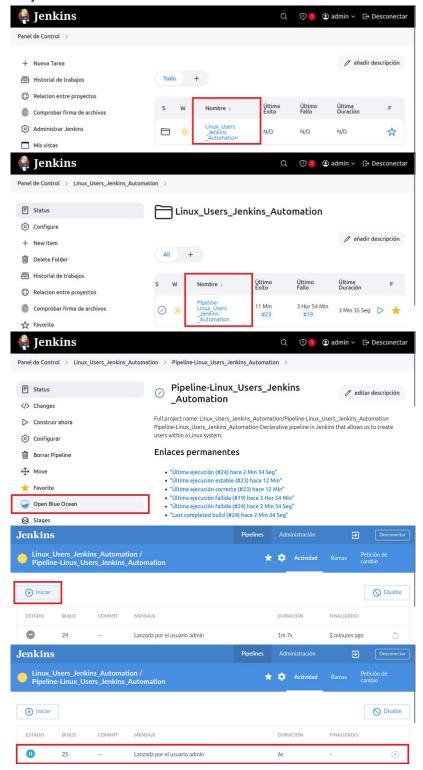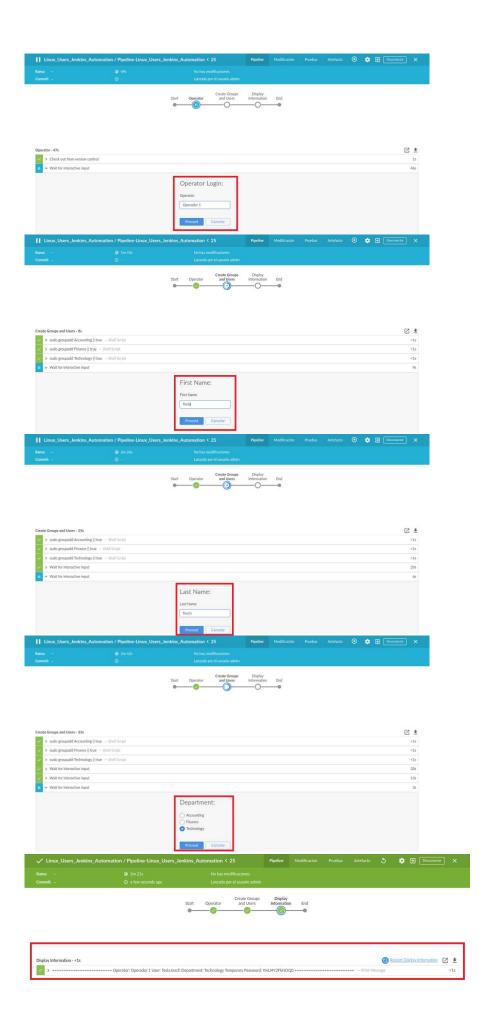1. Jenkins pipeline source code published in a Github repository.
   https://github.com/vitale-t/Linux_Users_Jenkins_Automation.git

2. Detailed guide on how to use the job published.
   Assuming you have the attached repository cloned, with Jenkins installed on your device, and correctly configured, we will move on to the detailed guide on how to use the job.

Rama: — 49s No hay modificaciones
Commit: — — Lanzada por el usuario admin

Start Operator Create Groups and Users Display Information End

Operator - 47s

> Check out from version control 1s
> Wait for interactive input 46s

Operator Login:

Operator

Operador 1

[Proceed] [Cancelar]

Rama: — 1m 43s No hay modificaciones
Commit: — — Lanzada por el usuario admin

Start Operator Create Groups and Users Display Information End

Create Groups and Users - 8s

> sudo groupadd Accounting || true — Shell Script <1s
> sudo groupadd Finance || true — Shell Script <1s
> sudo groupadd Technology || true — Shell Script <1s
> Wait for interactive input 9s

First Name:

First Name

Tesla

[Proceed] [Cancelar]

Rama: — 2m 26s No hay modificaciones
Commit: — — Lanzada por el usuario admin

Start Operator Create Groups and Users Display Information End

Create Groups and Users - 25s

> sudo groupadd Accounting || true — Shell Script <1s
> sudo groupadd Finance || true — Shell Script <1s
> sudo groupadd Technology || true — Shell Script <1s
> Wait for interactive input 20s
> Wait for interactive input 6s

Last Name:

Last Name

Tesch

[Proceed] [Cancelar]

Rama: — 2m 42s No hay modificaciones
Commit: — — Lanzada por el usuario admin

Start Operator Create Groups and Users Display Information End

Create Groups and Users - 33s

> sudo groupadd Accounting || true — Shell Script <1s
> sudo groupadd Finance || true — Shell Script <1s
> sudo groupadd Technology || true — Shell Script <1s
> Wait for interactive input 20s
> Wait for interactive input 13s
> Wait for interactive input 3s

Department:

○ Accounting
○ Finance
● Technology

[Proceed] [Cancelar]

Rama: — 2m 21s No hay modificaciones
Commit: — a few seconds ago Lanzada por el usuario admin

Start Operator Create Groups and Users Display Information End

Display Information - <1s Restart Display Information

> =========================== Operator: Operador 1 User: Tesla.tesch Department: Technology Temporary Password: YmU4Y2FkNDQ0 =========================== — Print Message <1s

3. Evidence of successful testing.

Local:


```
root@u1-VirtualBox:/# pwd
/
root@u1-VirtualBox:/# cd /home
root@u1-VirtualBox:/home# ls -lha | grep tesla
drwxr-x---  2 tesla.tech       Technology   4,0K mar 18 00:12 tesla.tech
root@u1-VirtualBox:/home# su - tesla.tech
Debe cambiar su contraseña inmediatamente (impuesto por el administrador).
Cambiando la contraseña de tesla.tech.
Contraseña actual:
Nueva contraseña:
Vuelva a escribir la nueva contrasena:
tesla.tech@u1-VirtualBox:~$ id
uid=1011(tesla.tech) gid=1012(Technology) grupos=1012(Technology)
tesla.tech@u1-VirtualBox:~$ pwd
/home/tesla.tech
tesla.tech@u1-VirtualBox:~$
```

Pipeline_Execution_Log:

```
Selected Git installation does not exist. Using Default
The recommended git tool is: NONE
using credential Linux_Users_Jenkins_Automation
> git rev-parse --resolve-git-dir
/var/lib/jenkins/workspace/Linux_Users_Jenkins_Automation/Pipeline-
Linux_Users_Jenkins_Automation@27.git # timeout=10
Fetching changes from the remote Git repository
> git config remote.origin.url https://github.com/vitale-
t/Linux_Users_Jenkins_Automation.git # timeout=10
Fetching upstream changes from https://github.com/vitale-
t/Linux_Users_Jenkins_Automation.git
> git --version # timeout=10
> git --version # 'git version 2.36.1'
using GIT_ASKPASS to set credentials Token
> git fetch --tags --force --progress -- https://github.com/vitale-
t/Linux_Users_Jenkins_Automation.git +refs/heads/*:refs/remotes/origin/* # timeout=10
> git rev-parse refs/remotes/origin/main^{commit} # timeout=10
Checking out Revision 100bf2e0c2602085b6a6370cc1174551e8e44530 (refs/remotes/origin/main)
> git config core.sparsecheckout # timeout=10
> git checkout -f 100bf2e0c2602085b6a6370cc1174551e8e44530 # timeout=10
Commit message: "README.md"
> git rev-list --no-walk 100bf2e0c2602085b6a6370cc1174551e8e44530 # timeout=10
Input requested
Approved by admin

+ sudo groupadd Accounting
groupadd: el grupo «Accounting» ya existe
+ true
+ sudo groupadd Finance
groupadd: el grupo «Finance» ya existe
+ true
+ sudo groupadd Technology
groupadd: el grupo «Technology» ya existe
+ true
Input requested
Approved by admin
Input requested
Approved by admin
Input requested
Approved by admin
+ sudo useradd -m -s /bin/bash -c Tesla Tech -g Technology tesla.tech
+ date +%s
+ sha256sum
+ head -c 12
+ base64
+ sudo chpasswd
+ echo tesla.tech:*****
+ sudo passwd -e tesla.tech
passwd: contraseña cambiada.

==========================
Operator: Operador 1
User: Tesla.tech
Department: Technology
Temporary Password: *****
==========================
```

4. Diagram:

```
                    ┌─────────┐
                    │  Start  │
                    └────┬────┘
                         │
                  ┌──────┴──────┐
                  │   Input     │
                  │  Operator   │
                  │  Username   │
                  └──────┬──────┘
                         │
                  ┌──────┴──────┐
                  │   Create    │
                  │  Groups and │
                  │    Users    │
                  └──────┬──────┘
                         │
                  ┌──────┴──────┐
                  │  Check if   │
                  │ Accounting  │
                  │ group exists│
                  └──────┬──────┘
                         │
                    ◇ Accounting ─── Yes ──→ ┌──────────┐
                      group exists?          │ No action │
                         │ No                │ required  │
                  ┌──────┴──────┐            └─────┬─────┘
                  │   Create    │                  │
                  │ Accounting  │←─────────────────┘
                  │    group    │
                  └──────┬──────┘
                         │
                  ┌──────┴──────┐
                  │  Check if   │
                  │   Finance   │
                  │ group exists│
                  └──────┬──────┘
                         │
                    ◇ Finance ─── Yes ──→ ┌──────────┐
                      group exists?       │ No action │
                         │ No             │ required  │
                  ┌──────┴──────┐         └─────┬─────┘
                  │   Create    │               │
                  │   Finance   │←──────────────┘
                  │    group    │
                  └──────┬──────┘
                         │
                  ┌──────┴──────┐
                  │  Check if   │
                  │ Technology  │
                  │ group exists│
                  └──────┬──────┘
                         │
                    ◇ Technology ─── Yes ──→ ┌──────────┐
                      group exists?          │ No action │
                         │ No                │ required  │
                  ┌──────┴──────┐            └─────┬─────┘
                  │   Create    │                  │
                  │ Technology  │                  │
                  │    group    │                  │
                  └──────┬──────┘                  │
                         │                         │
                  ┌──────┴──────┐                  │
                  │ Input First │←─────────────────┘
                  │    Name     │
                  └──────┬──────┘
                         │
                  ┌──────┴──────┐
                  │ Input Last  │
                  │    Name     │
                  └──────┬──────┘
                         │
                  ┌──────┴──────┐
                  │   Select    │
                  │ Department  │
                  │ (Accounting,│
                  │   Finance,  │
                  │ Technology) │
                  └──────┬──────┘
                         │
                  ┌──────┴──────┐
                  │  Generate   │
                  │  username:  │
                  │firstname.lastname│
                  └──────┬──────┘
                         │
                  ┌──────┴──────┐
                  │ Create user │
                  │    with     │
                  │  specified  │
                  │   details   │
                  └──────┬──────┘
                         │
                  ┌──────┴──────┐
                  │  Generate   │
                  │ temporary   │
                  │  password   │
                  └──────┬──────┘
                         │
                  ┌──────┴──────┐
                  │    Set      │
                  │ temporary   │
                  │  password   │
                  └──────┬──────┘
                         │
                  ┌──────┴──────┐
                  │   Expire    │
                  │ password on │
                  │  first use  │
                  └──────┬──────┘
                         │
                  ┌──────┴──────┐
                  │Display Operator,│
                  │User, Department,│
                  │  Temporary  │
                  │  Password   │
                  └──────┬──────┘
                         │
                    ┌────┴────┐
                    │   End   │
                    └─────────┘
```