



Manual de Instalación

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Configuración Servidor

Conexión al servidor por SSH

```
C:\Users\manue>ssh root@82.165.208.24
root@82.165.208.24's password:
Welcome to Ubuntu 24.04.1 LTS (GNU/Linux 6.8.0-51-generic x86_64)
```

Creación de nuevo usuario

```
info: Adding user `psytech' ...
info: Selecting UID/GID from range 1000 to 59999 ...
info: Adding new group `psytech' (1000) ...
info: Adding new user `psytech' (1000) with group `psytech (1000)' ...
info: Creating home directory `/home/psytech' ...
info: Copying files from `/etc/skel' ...
New password:
Retype new password:
passwd: password updated successfully
Changing the user information for psytech
Enter the new value, or press ENTER for the default
  Full Name []:
  Room Number []:
  Work Phone []:
  Home Phone []:
  Other []:
Is the information correct? [Y/n] Y
info: Adding new user `psytech' to supplemental / extra groups `users' ...
info: Adding user `psytech' to group `users' ...
root@ubuntu:~#
```

Añadir permisos de superusuario al nuevo usuario

```
root@ubuntu:~# usermod -aG sudo psytech
```

Conexión con servidor con el nuevo usuario

```
PS C:\Users\manue> ssh psytech@82.165.208.24
psytech@82.165.208.24's password:
Welcome to Ubuntu 24.04.1 LTS (GNU/Linux 6.8.0-51-generic x86_64)
```

Activación de superusuario

```
psytech@ubuntu:~$ sudo su
[sudo] password for psytech:
root@ubuntu:/home/psytech#
```

Instalación Git

Actualización de paquetes

```
root@ubuntu:/home/psytech# sudo apt update
```

Instalación de Git

```
root@ubuntu:/home/psytech# sudo apt install git
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
git is already the newest version (1:2.43.0-1ubuntu7.2).
git set to manually installed.
0 upgraded, 0 newly installed, 0 to remove and 106 not upgraded.
```

Instalación Ambiente NodeJs

Instalación de NVM

```
root@ubuntu:/home/psytech# curl -o- https://raw.githubusercontent.com/nvm-sh/nvm/v0.39.7/install.sh | bash
% Total    % Received % Xferd  Average Speed   Time    Time     Time  Current
           Dload  Upload   Total   Spent    Left   Speed
100 16555  100 16555    0     0  147k    0 --:--:-- --:--:-- --:--:-- 148k
=> Downloading nvm from git to '/root/.nvm'
=> Cloning into '/root/.nvm'...
remote: Enumerating objects: 382, done.
remote: Counting objects: 100% (382/382), done.
remote: Compressing objects: 100% (325/325), done.
remote: Total 382 (delta 43), reused 179 (delta 29), pack-reused 0 (from 0)
Receiving objects: 100% (382/382), 386.80 KiB | 14.33 MiB/s, done.
Resolving deltas: 100% (43/43), done.
* (HEAD detached at FETCH_HEAD)
  master
=> Compressing and cleaning up git repository

=> Appending nvm source string to /root/.bashrc
=> Appending bash_completion source string to /root/.bashrc
=> Close and reopen your terminal to start using nvm or run the following to use it now:

export NVM_DIR="$HOME/.nvm"
[ -s "$NVM_DIR/nvm.sh" ] && \. "$NVM_DIR/nvm.sh" # This loads nvm
[ -s "$NVM_DIR/bash_completion" ] && \. "$NVM_DIR/bash_completion" # This loads nvm bash_completion
```

Verificación de versión de nvm

```
root@ubuntu:/home/psytech# nvm -v
0.39.7
```

Instalación de Node 21

```
root@ubuntu:/home/psytech# nvm install 21
Downloading and installing node v21.7.3...
Downloading https://nodejs.org/dist/v21.7.3/node-v21.7.3-linux-x64.tar.xz...
#####
Computing checksum with sha256sum
Checksums matched!
Now using node v21.7.3 (npm v10.5.0)
Creating default alias: default -> 21 (-> v21.7.3)
```

Verificación de versión de Node

```
root@ubuntu:/home/psytech# node -v
v21.7.3
```

Verificación de versión de npm

```
root@ubuntu:/home/psytech# npm -v
10.5.0
```

Clonación del Proyecto

Clonación del repositorio

```
root@ubuntu:/home/psytech# git clone https://github.com/JuanManuelMurilloLopez/VaultTech-Psytech.git
Cloning into 'VaultTech-Psytech'...
remote: Enumerating objects: 2382, done.
remote: Counting objects: 100% (463/463), done.
remote: Compressing objects: 100% (304/304), done.
remote: Total 2382 (delta 325), reused 271 (delta 159), pack-reused 1919 (from 2)
Receiving objects: 100% (2382/2382), 12.61 MiB | 30.11 MiB/s, done.
Resolving deltas: 100% (1638/1638), done.
```

Instalación y Configuración MySQL

Instalación de MySQL Server

```
root@ubuntu:/home/psytech# sudo apt install mysql-server
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
  libbcbi-fast-perl libbcbi-pm-perl libclone-perl libcode-locale-perl libevent-pthreads-2.1-7t64 libfcgi-bin libfcgi-perl libfcgi9t64 libhtml-parser-perl libhtml-tagset-perl libhtml-template-perl
  libhttp-date-perl libhttp-message-perl libio-htl-perl liblwp-mediatypes-perl libmecab2 libprotobuf-lite32t64 libtimedate-perl liburi-perl mecab-ipadic mecab-ipadic-utf8 mecab-utils mysql-client-8.0
  mysql-client-core-8.0 mysql-common mysql-server-8.0 mysql-server-core-8.0
Suggested packages:
  libdata-dump-perl libipc-sharedcache-perl libio-compress-brotli-perl libbusiness-isbn-perl libregexp-ipv6-perl libwww-perl mailx tinycsa
The following NEW packages will be installed:
  libbcbi-fast-perl libbcbi-pm-perl libclone-perl libcode-locale-perl libevent-pthreads-2.1-7t64 libfcgi-bin libfcgi-perl libfcgi9t64 libhtml-parser-perl libhtml-tagset-perl libhtml-template-perl
  libhttp-date-perl libhttp-message-perl libio-htl-perl liblwp-mediatypes-perl libmecab2 libprotobuf-lite32t64 libtimedate-perl liburi-perl mecab-ipadic mecab-ipadic-utf8 mecab-utils mysql-client-8.0
  mysql-client-core-8.0 mysql-common mysql-server mysql-server-8.0 mysql-server-core-8.0
0 upgraded, 28 newly installed, 0 to remove and 166 not upgraded.
Need to get 29.6 MB of archives.
After this operation, 242 MB of additional disk space will be used.
Do you want to continue? [Y/n] Y
```

Activación del servicio mysql

```
root@ubuntu:/home/psytech# sudo systemctl start mysql.service
```

Verificación del servicio mysql

```
root@ubuntu:/home/psytech# sudo systemctl status mysql.service
● mysql.service - MySQL Community Server
   Loaded: loaded (/usr/lib/systemd/system/mysql.service; enabled; preset: enabled)
   Active: active (running) since Sun 2025-04-06 03:36:57 UTC; 1min 13s ago
     Process: 503679 ExecStartPre=/usr/share/mysql/mysql-systemd-start pre (code=exited, status=0/SUCCESS)
    Main PID: 503699 (mysqld)
      Status: "Server is operational"
        Tasks: 37 (limit: 2185)
       Memory: 354.2M (peak: 378.4M)
          CPU: 1.183s
       CGroup: /system.slice/mysql.service
               └─503699 /usr/sbin/mysqld

Apr 06 03:36:56 ubuntu systemd[1]: Starting mysql.service - MySQL Community Server...
Apr 06 03:36:57 ubuntu systemd[1]: Started mysql.service - MySQL Community Server.
```

Ingreso a MySQL

```
root@ubuntu:/home/psytech# sudo mysql
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 8
Server version: 8.0.41-0ubuntu0.24.04.1 (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> |
```

Habilitación de contraseña para root

```
mysql> ALTER USER 'root'@'localhost' IDENTIFIED WITH mysql_native_password BY 'nkGij68M1';
Query OK, 0 rows affected (0.01 sec)
```

Configuración inicial de MySQL

```
root@ubuntu:/home/psytech# sudo mysql_secure_installation

Securing the MySQL server deployment.

Enter password for user root:

VALIDATE PASSWORD COMPONENT can be used to test passwords
and improve security. It checks the strength of password
and allows the users to set only those passwords which are
secure enough. Would you like to setup VALIDATE PASSWORD component?

Press y|Y for Yes, any other key for No: N
Using existing password for root.
Change the password for root ? ((Press y|Y for Yes, any other key for No) : N

... skipping.
By default, a MySQL installation has an anonymous user,
allowing anyone to log into MySQL without having to have
a user account created for them. This is intended only for
testing, and to make the installation go a bit smoother.
You should remove them before moving into a production
environment.

Remove anonymous users? (Press y|Y for Yes, any other key for No) : Y
Success.

Normally, root should only be allowed to connect from
'localhost'. This ensures that someone cannot guess at
the root password from the network.

Disallow root login remotely? (Press y|Y for Yes, any other key for No) : Y
Success.

By default, MySQL comes with a database named 'test' that
anyone can access. This is also intended only for testing,
and should be removed before moving into a production
environment.

Remove test database and access to it? (Press y|Y for Yes, any other key for No) : Y
- Dropping test database...
Success.

- Removing privileges on test database...
Success.

Reloading the privilege tables will ensure that all changes
made so far will take effect immediately.

Reload privilege tables now? (Press y|Y for Yes, any other key for No) : Y
Success.

All done!
```

Ingreso a MySQL

```
root@ubuntu:/home/psytech# sudo mysql -u root -p
Enter password:
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 13
Server version: 8.0.41-0ubuntu0.24.04.1 (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.
```

Creación de la base de datos

```
mysql> CREATE DATABASE psytech;
Query OK, 1 row affected (0.00 sec)
```

Creación de usuario

```
mysql> CREATE USER 'psytech'@'localhost' IDENTIFIED BY 'bekU83Mf09';
Query OK, 0 rows affected (0.01 sec)
```

Usuario: psytech

Contraseña: bekU83Mf09

Brindar permisos al usuario dentro de la base de datos

```
mysql> GRANT ALL PRIVILEGES ON psytech.* to 'psytech'@'localhost';
Query OK, 0 rows affected (0.01 sec)
```

Recarga de privilegios

```
mysql> FLUSH PRIVILEGES;
Query OK, 0 rows affected (0.01 sec)
```

Instalación de Dependencias

Navegación a la raíz del proyecto

```
root@ubuntu:/home/psytech# cd VaultTech-Psytech/Psytech/|
```

Instalación de paquetes de node

```
root@ubuntu:/home/psytech/VaultTech-Psytech/Psytech# npm install
npm WARN deprecated npmlog@5.0.1: This package is no longer supported.
npm WARN deprecated are-we-there-yet@2.0.0: This package is no longer supported.
npm WARN deprecated rimraf@3.0.2: Rimraf versions prior to v4 are no longer supported
npm WARN deprecated inflight@1.0.6: This module is not supported, and leaks memory. Do
more comprehensive and powerful.
npm WARN deprecated glob@7.2.3: Glob versions prior to v9 are no longer supported
npm WARN deprecated gauge@3.0.2: This package is no longer supported.

added 221 packages, and audited 222 packages in 4s

27 packages are looking for funding
  run `npm fund` for details

found 0 vulnerabilities
```

Verificación de inicio de proyecto

```
root@ubuntu:/home/psytech/VaultTech-Psytech/Psytech# npm start

> psytech@1.0.0 start
> nodemon

[nodemon] 3.1.9
[nodemon] to restart at any time, enter `rs`
[nodemon] watching path(s): *.*
[nodemon] watching extensions: js,mjs,cjs,json
[nodemon] starting `node app.js`
Servidor corriendo en http://localhost:5050
```

Habilitación del Servidor

Instalación de pm2

```
root@ubuntu:/home/psytech/VaultTech-Psytech/Psytech# npm install pm2@latest -g
added 134 packages in 8s

13 packages are looking for funding
  run `npm fund` for details
root@ubuntu:/home/psytech/VaultTech-Psytech/Psytech# |
```


Arranque del servidor con Pm2

[illegible]

Verificación de inicio de aplicación

```
root@ubuntu:/home/psytech/VaultTech-Psytech/Psytech# curl localhost:5050
<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="utf-8">
<title>Error</title>
</head>
<body>
<pre>Cannot GET /</pre>
</body>
</html>
```

```
root@ubuntu:/home/psytech/VaultTech-Psytech/Psytech# curl localhost:5050/login
<!DOCTYPE html>
<html lang="es">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>PsicoDX | Selecciona tu perfil</title>
  <!-- Bootstrap CSS -->
  <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.3.0/dist/css/bootstrap.min.css" rel="stylesheet">
  <!-- CSS link -->
  <link rel="stylesheet" href="/css/login.css">
</head>
<body>

  <div class="container">

    <!-- Logo -->
    <div class="text-center mt-5">
      
    </div>

    <!-- Formulario de inicio de sesión -->
    <form action="/login" method="POST" class="mx-auto mt-4 text-center" style="max-width: 350px;">

      <!-- Campo Usuario -->
      <div class="mb-3">
        <label for="usuario" class="form-label">Usuario</label>
        <div class="input-login">
          
          <input type="text" id="usuario" name="usuario" class="form-control" required>
        </div>
      </div>

      <!-- Campo Contraseña -->
      <div class="mb-3">
        <label for="contrasenia" class="form-label">Contraseña</label>
        <div class="input-login">
          
          <input type="password" id="contrasenia" name="contrasenia" class="form-control" required>
        </div>
      </div>

      <!-- Terminos y condiciones -->
      <div class="centrado">
        <div class="form-check-inline">
          <input class="form-check-input" type="checkbox" id="terminosCondiciones" name="terminos">
          <label class="form-check-label" for="terminosCondiciones">
            Términos y Condiciones
          </label>
        </div>
      </div>
    </form>
  </div>
</body>
</html>
```

Configuración para inicio automático de aplicación al reiniciar

```
root@ubuntu:/home/psytech/VaultTech-Psytech/Psytech# pm2 save
[PM2] Saving current process list...
[PM2] Successfully saved in /root/.pm2/dump.pm2
root@ubuntu:/home/psytech/VaultTech-Psytech/Psytech# pm2 startup
[PM2] Init System found: systemd
Platform systemd
Template
[Unit]
Description=PM2 process manager
Documentation=https://pm2.keymetrics.io/
After=network.target

[Service]
Type=forking
User=root
LimitNOFILE=infinity
LimitNPROC=infinity
LimitCORE=infinity
Environment=PATH=/root/.nvm/versions/node/v21.7.3/bin:/usr/local/sbin:/usr/local/bin:/usr/sbin:/usr/bin:/sbin:/bin:/usr/games:/usr/local/games:/snap/bin:/bin:/usr/local/sbin:/usr/local/bin:/usr/sbin:/usr/bin
Environment=PM2_HOME=/root/.pm2
PIDfile=/root/.pm2/pm2.pid
Restart=on-failure

ExecStart=/root/.nvm/versions/node/v21.7.3/lib/node_modules/pm2/bin/pm2 resurrect
ExecReload=/root/.nvm/versions/node/v21.7.3/lib/node_modules/pm2/bin/pm2 reload all
ExecStop=/root/.nvm/versions/node/v21.7.3/lib/node_modules/pm2/bin/pm2 kill

[Install]
WantedBy=multi-user.target

Target path
/etc/systemd/system/pm2-root.service
Command list
[ 'systemctl enable pm2-root' ]
[PM2] Writing init configuration in /etc/systemd/system/pm2-root.service
[PM2] Making script booting at startup...
[PM2] [-] Executing: systemctl enable pm2-root...
Created symlink /etc/systemd/system/multi-user.target.wants/pm2-root.service → /etc/systemd/system/pm2-root.service.
[PM2] [v] Command successfully executed.
+-----+
[PM2] Freeze a process list on reboot via:
$ pm2 save
[PM2] Remove init script via:
$ pm2 unstartup systemd
```

Instalación y Configuración Caddy

Instalación de Caddy

```
root@ubuntu:/home/psytech/VaultTech-Psytech/Psytech# sudo apt install -y debian-keyring debian-archive-keyring apt-transport-https curl
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
curl is already the newest version (8.5.0-2ubuntu10.6).
curl set to manually installed.
The following NEW packages will be installed:
  apt-transport-https debian-archive-keyring debian-keyring
```

```
root@ubuntu:/home/psytech/VaultTech-Psytech/Psytech# curl -sLf 'https://dl.cloudsmith.io/public/caddy/stable/gpg.key' | sudo gpg --dearmor -o /usr/share/keyrings/caddy-stable-archive-keyring.gpg
```

```
root@ubuntu:/home/psytech/VaultTech-Psytech/Psytech# curl -sLf 'https://dl.cloudsmith.io/public/caddy/stable/debian.deb.txt' | sudo tee /etc/apt/sources.list.d/caddy-stable.list
# Source: Caddy
# Site: https://github.com/caddyserver/caddy
# Repository: Caddy / stable
# Description: Fast, multi-platform web server with automatic HTTPS
```

```
deb [signed-by=/usr/share/keyrings/caddy-stable-archive-keyring.gpg] https://dl.cloudsmith.io/public/caddy/stable/deb/debian any-version main
```

```
deb-src [signed-by=/usr/share/keyrings/caddy-stable-archive-keyring.gpg] https://dl.cloudsmith.io/public/caddy/stable/deb/debian any-version main
```

```
root@ubuntu:/home/psytech/VaultTech-Psytech/Psytech# sudo apt update
```

```
root@ubuntu:/home/psytech/VaultTech-Psytech/Psytech# sudo apt install caddy
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following NEW packages will be installed:
  caddy
0 upgraded, 1 newly installed, 0 to remove and 106 not upgraded.
Need to get 14.4 MB of archives.
After this operation, 40.0 MB of additional disk space will be used.
Get:1 https://dl.cloudsmith.io/public/caddy/stable/deb/debian any-version/main amd64 caddy amd64 2.9.1 [14.4 MB]
Fetched 14.4 MB in 1s (19.6 MB/s)
Selecting previously unselected package caddy.
(Reading database ... 106984 files and directories currently installed.)
Preparing to unpack .../archives/caddy_2.9.1_amd64.deb ...
Unpacking caddy (2.9.1) ...
Setting up caddy (2.9.1) ...
Created symlink /etc/systemd/system/multi-user.target.wants/caddy.service → /usr/lib/systemd/system/caddy.service.
Processing triggers for man-db (2.12.0-4build2) ...
Scanning processes...
Scanning candidates...
Scanning linux images...

Pending kernel upgrade!
Running kernel version:
  6.8.0-51-generic
Diagnostics:
  The currently running kernel version is not the expected kernel version 6.8.0-57-generic.

Restarting the system to load the new kernel will not be handled automatically, so you should consider rebooting.

Restarting services...

Service restarts being deferred:
  /etc/needrestart/restart.d/dbus.service
systemctl restart getty@tty1.service
systemctl restart serial-getty@ttyS0.service
systemctl restart systemd-logind.service
systemctl restart unattended-upgrades.service

No containers need to be restarted.

No user sessions are running outdated binaries.

No VM guests are running outdated hypervisor (qemu) binaries on this host.
```

Abrir el archivo de configuración de Caddy

```
root@ubuntu:/home/psytech/VaultTech-Psytech/Psytech# sudo vi Caddyfile
```

Configuración Caddy

```
# VaultTech-Psytech/Caddyfile
:80 {
    reverse_proxy localhost:5050
}
```

Habilitar puertos para tráfico HTTP y HTTPS

```
root@ubuntu:/home/psytech/VaultTech-Psytech/Psytech# sudo ufw allow 80
Rules updated
Rules updated (v6)
root@ubuntu:/home/psytech/VaultTech-Psytech/Psytech# sudo ufw allow 443
Rules updated
Rules updated (v6)
```

Inicio del servicio Caddy

```
root@ubuntu:/home/psytech/VaultTech-Psytech/Psytech# caddy start
2025/04/06 04:37:38.964 INFO using adjacent Caddyfile
2025/04/06 04:37:38.965 INFO adapted config to JSON {"adapter": "caddyfile"}
2025/04/06 04:37:38.965 INFO admin admin endpoint started {"address": "localhost:2019", "enforce_origin": false, "origins": ["//localhost:2019", "://[::1]:2019", "://127.0.0.1:2019"]}
2025/04/06 04:37:38.965 WARN http.auto_https server is listening only on the HTTP port, so no automatic HTTPS will be applied to this server {"server_name": "srv0", "http_port": 80}
2025/04/06 04:37:38.965 INFO tls.cache.maintenance started background certificate maintenance {"cache": "0xc00043b080"}
2025/04/06 04:37:38.966 WARN http HTTP/2 skipped because it requires TLS {"network": "tcp", "addr": ".*:80"}
2025/04/06 04:37:38.966 WARN http HTTP/3 skipped because it requires TLS {"network": "tcp", "addr": ".*:80"}
2025/04/06 04:37:38.966 INFO http.log server running {"name": "srv0", "protocols": ["h1", "h2", "h3"]}
2025/04/06 04:37:38.966 INFO autosaved config (load with --resume flag) {"file": "/root/.config/caddy/autosave.json"}
2025/04/06 04:37:38.966 INFO serving initial configuration
Successfully started Caddy (pid:595288) - Caddy is running in the background
2025/04/06 04:37:38.969 INFO tls storage cleaning happened too recently; skipping for now {"storage": "FileStorage:/root/.local/share/caddy", "instance": "d0f7fbfb-9919-4c86-8020-d6dfaf1c6f2d", "try_again": "2025/04/07 04:37:38.969", "try_again_in": 86399.99999997}
2025/04/06 04:37:38.970 INFO tls finished cleaning storage units
```