Snipe-IT

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SnipeIT - Background

Snipe-IT adalah aplikasi **open source IT Asset Management (ITAM)** yang digunakan untuk mencatat, mengelola, dan melacak aset perusahaan, seperti **hardware, software, lisensi, peripheral, dan kontrak**.
Aplikasi ini berbasis web (web-based) sehingga bisa diakses melalui browser, baik di server lokal maupun cloud.

Fitur Utama Snipe-IT

1. **Asset Management**
   - Mencatat detail aset (serial number, merk, model, lokasi, user).
   - Tracking lifecycle dari procurement hingga disposal.
2. **User & Assignment Tracking**
   - Menentukan siapa pemilik/pengguna dari suatu aset.
   - Riwayat siapa pernah menggunakan aset tersebut.
3. **License Management**
   - Mencatat lisensi software (key, jumlah seat, masa berlaku).
   - Memberi peringatan sebelum lisensi habis.
4. **Accessories & Consumables**
   - Melacak peripheral (keyboard, mouse, headset, charger).
   - Mengatur barang habis pakai (toner, tinta printer, baterai).
5. **Audit & History**
   - Mencatat setiap perubahan (check-in, check-out, pindah lokasi).
   - Laporan histori aset secara lengkap.
6. **Notification & Alert**
   - Email notifikasi untuk lisensi expired, perpanjangan kontrak, atau masa garansi.
7. **API & Integrasi**
   - REST API untuk integrasi dengan sistem lain (misalnya Helpdesk, ERP).

Arsitektur Snipe-IT

- **Backend**: PHP (Laravel framework)
- **Database**: MySQL/MariaDB
- **Frontend**: Web-based (HTML, JS, Bootstrap)
- **Hosting**: Bisa di-host di server on-premises atau di Docker (containerized).

Kelebihan

- Gratis & open source (GPL v3).
- Interface modern & mudah dipakai.
- Komunitas besar dan dokumentasi lengkap.
- Bisa multi-user (dengan role & permission).

Kekurangan

- Tidak otomatis melakukan **network discovery** (perlu input manual atau integrasi).
- Fungsinya lebih ke **asset inventory**, belum selengkap ITAM enterprise (misalnya Flexera, ServiceNow).
- Butuh setup manual di server (Linux/Windows dengan LAMP stack atau Docker).

SnipeIT - Prerequisites Recommended

Spesification Requirement

- **CPU**: 4 core
- **RAM**: 8 GB
- **Disk**: 250 GB (SSD lebih baik)
- **Operating System** : Ubuntu Server 24.04 (64-bit)
- **Database**: mariadb Ver 15.1 Distrib 10.11.13-MariaDB, for debian-linux-gnu (x86_64)

DependenciesSnipe-IT (latest version) di Ubuntu 24.04

1. **Web Server**
   - Nginx Stable Version.
2. **PHP (versi 8.2 – 8.4)** dengan extension :

   ```
   php-bcmath
   php-ctype
   php-curl
   php-dom
   php-gd
   php-iconv
   php-json
   php-mbstring
   php-mysql
   php-openssl
   php-tokenizer
   php-xml
   php-zip
   ```

3. **Database**
   - Mariadb Ver 15.1 Distrib 10.11.13-MariaDB, for debian-linux-gnu (x86_64)
   - Pastikan ada user & database khusus untuk Snipe-IT.
4. **Composer**
   - Dependency manager untuk PHP (wajib untuk install paket Laravel).
5. **Git**

6. **Dependencies tambahan**

```
software-properties-common
unzip
curl
zip
nano
```

SnipeIT - Install SnipeIT

1. Pastikan server ubuntu sudah mempunyai koneksi internet.
2. Pastikan Ubuntu yang digunakan LTS.

   ```
   lsb_release -a
   ```

   Output OS Ubuntu version.

   ```
   No LSB modules are available.
   Distributor ID: Ubuntu
   Description:    Ubuntu 24.04.3 LTS
   Release:        24.04
   Codename:       noble
   ```

3. Update dan Upgrade Ubuntu 24.04.

   ```
   apt update && apt upgrade -y
   ```

4. Install Dependencies.

   ```
   apt install software-properties-common -y
   apt install curl -y
   apt install unzip -y
   apt install zip -y
   apt install nano -y
   ```

5. Install PHP 8.4.

   ```
   add-apt-repository ppa:ondrej/php -y
   apt update
   apt install -y php8.4 php8.4-bcmath php8.4-common php8.4-ctype php8.4-curl php8.4-fileinfo php8.4-fpm php8.4-gd php8.4-intl php8.4-mbstring php8.4-mysql php8.4-soap php8.4-xml php8.4-xsl php8.4-zip php8.4-cli
   ```

6. Cek Version

   ```
   php -v
   ```

   Output PHP version.

```
PHP 8.4.11 (cli) (built: Aug  3 2025 08:42:27) (NTS)
Copyright (c) The PHP Group
Built by Debian
Zend Engine v4.4.11, Copyright (c) Zend Technologies
    with Zend OPcache v8.4.11, Copyright (c), by Zend Technologies
```

7. Install Composer.

```
wget -O composer-setup.php https://getcomposer.org/installer
php composer-setup.php --install-dir=/usr/local/bin --filename=composer
```

8. Cek Version

```
composer -V
```

Output Composer version.

```
Composer version 2.8.11 2025-08-21 11:29:39
PHP version 8.4.11 (/usr/bin/php8.4)
Run the "diagnose" command to get more detailed diagnostics output.
```

9. Install MariaDB Server & Client.

```
apt install mariadb-server mariadb-client -y
```

10. Cek Version

```
mariadb -V
```

Output MariaDB version.

```
mariadb  Ver 15.1 Distrib 10.11.13-MariaDB, for debian-linux-gnu (x86_64) using  EditLine wrapper
```

11. Create Database.

```
mysql
```

```
mysql> CREATE DATABASE db_snipeit;
mysql> GRANT ALL on db_snipeit.* to user_snipeit@localhost identified by 'ilusidigital.com';
mysql> FLUSH PRIVILEGES;
mysql> \q
```

12. Create Folder & Download Snipe-IT (Versi yang diunduh tergantung pada yang ingin diinstal.)

```
mkdir -p /var/www/
cd /var/www/
```

```
wget https://github.com/grokability/snipe-it/archive/refs/tags/v8.2.1.zip
unzip v8.2.1.zip
mv snipe-it-8.2.1 snipe-it
cd snipe-it
cp .env.example .env
nano .env
```

13. Basic & Simple Config .env

```
APP_URL=https://assets.ilusidigital.com
APP_TIMEZONE=Asia/Jakarta
#
DB_DATABASE=db_snipeit
DB_USERNAME=user_snipeit
DB_PASSWORD=ilusidigital.com
```

14. Change Ownership.

```
chown -R nginx:nginx /var/www/snipe-it
```

15. Update Dependencies Composer & Laravel.

```
cd /var/www/snipe-it/
composer update --no-plugins --no-scripts
composer install --no-dev --prefer-source --no-plugins --no-scripts
php artisan migrate --seed
php artisan key:generate
```

16. Klik link berikut untuk Install Nginx Ubuntu
17. Backup file config default nginx.

```
cd /etc/nginx/conf.d/
mv default.conf default.conf.backup
```

18. Create Folder Log dan Edit Konfigurasi Nginx untuk SnipeIT :

```
mkdir -p /var/log/nginx/snipeit/
nano /etc/nginx/conf.d/snipeit.conf
```

19. Konfigurasi Nginx SnipeIT :

```
server {
    listen 80;
    server_name assets.ilusidigital.com;
```

```
    root /var/www/snipe-it/public;
    index index.php;

    access_log /var/log/nginx/snipeit/snipeit_access.log;
    error_log  /var/log/nginx/snipeit/snipeit_error.log warn;

    location / {
        try_files $uri $uri/ /index.php?$query_string;
    }

    location ~ \.php$ {
        include fastcgi_params;
        fastcgi_pass unix:/run/php/php8.4-fpm.sock;
        fastcgi_index index.php;
        fastcgi_split_path_info ^(.+\.php)(/.+)$;
        fastcgi_param SCRIPT_FILENAME $document_root$fastcgi_script_name;
        fastcgi_param PATH_INFO $fastcgi_path_info;
        fastcgi_read_timeout 300;
        fastcgi_connect_timeout 300;
        fastcgi_send_timeout 300;

    }

    location ~ /\.ht {
        deny all;
    }
}
```

20. Ubah default user.

```
nano /etc/nginx/nginx.conf
```

21. Edit pool config PHP-FPM (biasanya di /etc/php/8.4/fpm/pool.d/www.conf):

```
listen = /run/php/php8.4-fpm.sock
listen.owner = nginx
listen.group = nginx
listen.mode = 0660
```

22. Restart Service Nginx dan PHP-FPM

```
systemctl restart php8.4-fpm
systemctl restart nginx
```

23. Verifikasi Socket

```
ls -l /run/php/php8.4-fpm.sock
```

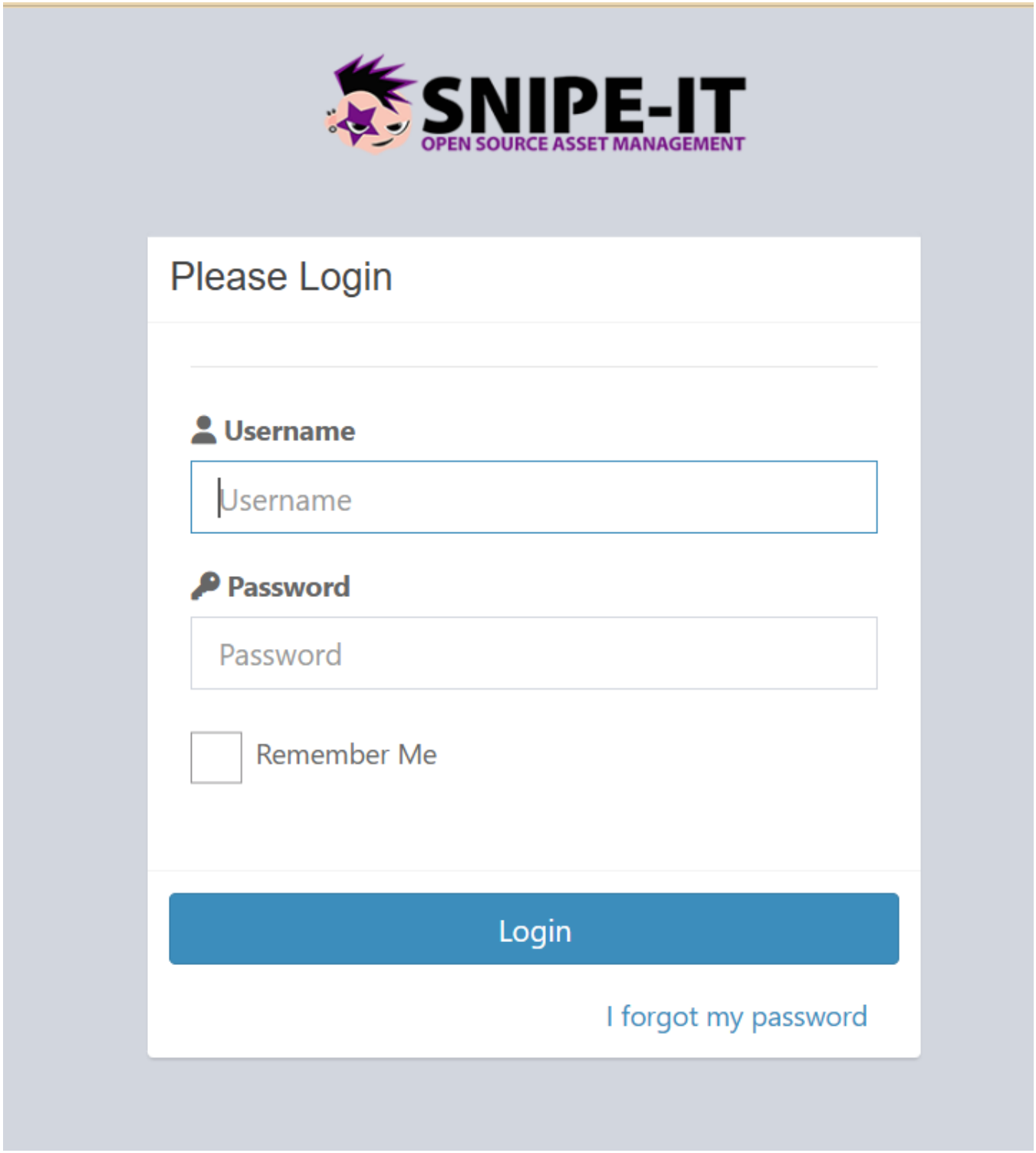
24. Hasil dari verfikasi socket.

```
srw-rw---- 1 nginx nginx 0 Sep 22 13:05 /run/php/php8.4-fpm.sock
```

25. Create User Admin pada SnipeIT

```
cd /var/www/snipet-it/
php artisan snipeit:create-admin --first_name="Admin" --last_name="Ilusi Digital" --
email=ilusi.digtal2022@gmail.com --username=ilusidigital --password="P@ssw0rd!"
```

26. Snipe-IT sudah bisa digunakan.


SNIPE-IT
OPEN SOURCE ASSET MANAGEMENT
Please Login
Username
Username
Password
Password
Remember Me
Login
I forgot my password

27. Selesai