Apache mod_userdir

Apache official guide:

https://httpd.apache.org/docs/2.4/mod/mod_userdir.html

Automated Personal Webpage Creator

http://localhost/~username

This document contains a step-by-step tutorial and an interactive Bash script that creates a Linux user, sets the user's password equal to the username (as requested), configures the user's public_html directory, and generates a personal webpage accessible via Apache mod_userdir at http://localhost/~username.

Important Security Notice

⚠️ Security Warning: The script included in this document sets the user's password to be the same as the username. This is insecure and should only be used in controlled lab or teaching environments. Do NOT use this practice on production systems or on machines exposed to the public internet.

Compatibility & Fix

This script is compatible with Ubuntu 24.04. A small fix has been applied to the index.html creation block to ensure shell variables expand correctly and the file is written as the target user. The corrected block uses `sudo -u "$username" tee "$WEB_DIR/index.html" <<EOF` which avoids quoting/expansion pitfalls.

Prerequisites

Make sure the following are installed and configured on the Ubuntu server (22.04 / 24.04):

• Apache2

• mod_userdir enabled

• You run the script with root privileges (sudo) or as root

Commands to prepare the environment:

```
sudo apt update
sudo apt install apache2 -y
sudo a2enmod userdir
sudo systemctl restart apache2
```

What the script does

1. Asks interactively for user information (username, full name, bio, languages, education, skills).

2. Creates the Linux user if it doesn't exist.

3. Sets the user's password to the username (lab/testing only).

4. Creates /home/username/public_html and generates aboutme.md and index.html based on the input.

5. Sets appropriate permissions and restarts Apache so the page is available at http://localhost/~username.

Corrected Script: create_user_web.sh

Copy the following script to /usr/local/bin/create_user_web.sh and make it executable (sudo chmod +x).

----- SCRIPT START -----

```bash
#!/bin/bash

# ============================================================

#  Script: create_user_web.sh

#  Description: Interactive creator for user + personal webpage

#            (Sets password = username — only for labs/testing)

#  Tested on: Ubuntu 22.04 / 24.04 with Apache2 and mod_userdir

# ============================================================


set -euo pipefail


echo "=== Personal Webpage Creator (Interactive) ==="


# --- 1. Ask for user information ---

read -p "Enter username (lowercase, no spaces): " username

if [[ -z "$username" ]]; then

  echo "Username cannot be empty."

  exit 1

fi

read -p "Enter full name: " fullname
```

```bash
read -p "Enter short bio or presentation: " bio

read -p "Enter your languages (comma-separated): " languages

read -p "Enter your education or formation: " formation

read -p "Enter your skills (comma-separated): " skills


USER_HOME="/home/$username"

WEB_DIR="$USER_HOME/public_html"


# --- 2. Create user if it does not exist ---

if id "$username" &>/dev/null; then

  echo "User '$username' already exists. Skipping creation."

else

  echo "Creating user '$username'..."

  sudo adduser --disabled-password --gecos "" "$username"

  # Set password = username (INSECURE — for lab/testing only)

  echo "$username:$username" | sudo chpasswd

  echo "Password for user '$username' set to the username (insecure — change after testing)."

fi


# --- 3. Create web directory and files ---

sudo -u "$username" mkdir -p "$WEB_DIR"


# Create aboutme.md (markdown)

sudo -u "$username" bash -c "cat > '$WEB_DIR/aboutme.md' <<EOF

# About Me

**Name:** $fullname


**Bio:** $bio
```

Languages: $languages

Education: $formation

Skills: $skills

EOF"

Create index.html using tee to ensure correct variable expansion and file ownership

sudo -u "$username" tee "$WEB_DIR/index.html" > /dev/null <<EOF

```html
<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="utf-8">
<meta name="viewport" content="width=device-width,initial-scale=1">
<title>$fullname - Personal Page</title>
<style>
    body { font-family: Arial, sans-serif; background:#f5f7fb; color:#222; padding:20px; }
    .card { background:#fff; max-width:900px; margin:20px auto; padding:20px; border-radius:8px; box-shadow:0 4px 12px rgba(0,0,0,0.08); }
    h1 { color:#1f3b4d; }
    section { margin-bottom: 1rem; }
</style>
</head>
<body>
<div class="card">
<h1>Welcome to $fullname's page</h1>
<p>This page is auto-generated and served via Apache mod_userdir: <code>/~$username</code></p>
<section>
```

```
<h2>About</h2>

<p>$bio</p>

</section>

<section>

<h2>Languages</h2>

<p>$languages</p>

</section>

<section>

<h2>Education</h2>

<p>$formation</p>

</section>

<section>

<h2>Skills</h2>

<p>$skills</p>

</section>

<hr>

<p><em>Generated automatically using create_user_web.sh</em></p>

</div>

</body>

</html>

EOF


# --- 4. Permissions ---

sudo chmod 755 "$USER_HOME"

sudo chmod 755 "$WEB_DIR"

sudo chown -R "$username:$username" "$WEB_DIR"


# --- 5. Restart Apache to ensure mod_userdir picks up the new files ---
```

```
sudo systemctl restart apache2 || true
```

echo "✅ User page created: http://localhost/~$username"

echo "Note: Password for $username is set to the username. Please change it after testing:"

echo "sudo passwd $username"

----- SCRIPT END -----

Usage and Notes

1. Save the script as /usr/local/bin/create_user_web.sh and make it executable:

```
sudo nano /usr/local/bin/create_user_web.sh
```
Paste the script contents and save.

```
sudo chmod +x /usr/local/bin/create_user_web.sh
```

2. Run the script with root privileges (recommended to use sudo):

```
sudo /usr/local/bin/create_user_web.sh
```

3. After creation, open the generated page in a browser:

http://localhost/~username

4. To change the password (recommended):

```
sudo passwd username
```

Optional Improvements (Suggested)
- Convert aboutme.md to HTML using pandoc if you want richer formatting.
- Add optional profile picture support (look for /home/username/photo.jpg).
- Add an admin-only web form (PHP/Flask) that sanitizes input and calls this script.
- Enforce stronger password policies for production.

Appendix: Verifying mod_userdir is enabled
To check that mod_userdir is enabled and working:

```
sudo a2enmod userdir
sudo systemctl restart apache2
apache2ctl -M | grep userdir
```

Now create 3 users and 3 websites using the create_user_web.sh

FIRST STEP: we install the module

```
usuario@usuariovm:~$ sudo a2enmod userdir
[sudo] contraseña para usuario:
Enabling module userdir.
To activate the new configuration, you need to run:
  systemctl restart apache2
usuario@usuariovm:~$
```

Then we restart the service

```
usuario@usuariovm:~$ systemctl restart apache2
```

SECOND STEP: we create the script document

```
usuario@usuariovm:~$ sudo nano /usr/local/bin/create_user_web.sh
```
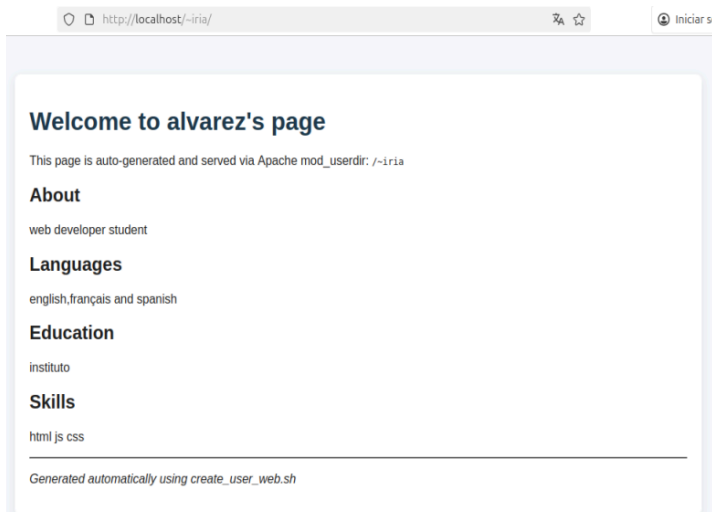
When the script is done,we save it and execute it

```
usuario@usuariovm:~$ sudo chmod +x /usr/local/bin/create_user_web.sh
```
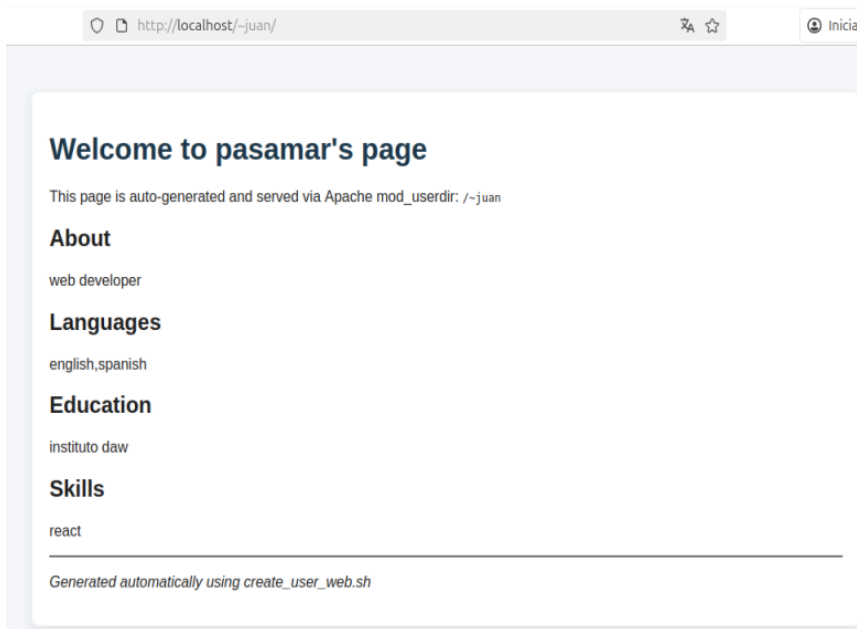
```
usuario@usuariovm:~$ sudo ls -l /usr/local/bin/
total 4
-rwxr-xr-x 1 root root 3224 oct 30 11:56 create_user_web.sh
usuario@usuariovm:~$
```

Curl of the localhost of the first user created

```
usuario@usuariovm:~$ curl http://localhost/~iria/
<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="utf-8">
<meta name="viewport" content="width=device-width,initial-scale=1">
<title>alvarez - Personal Page</title>
<style>
    body { font-family: Arial, sans-serif; background:#f5f7fb; color:#222; padding:20px; }
    .card { background:#fff; max-width:900px; margin:20px auto; padding:20px; border-radius:8px; bo
gba(0,0,0,0.08); }
    h1 { color:#1f3b4d; }
    section { margin-bottom: 1rem; }
</style>
</head>
<body>
<div class="card">
<h1>Welcome to alvarez's page</h1>
<p>This page is auto-generated and served via Apache mod_userdir: <code>/~iria</code></p>
<section>
<h2>About</h2>
<p>web developer student</p>
</section>
<section>
<h2>Languages</h2>
```
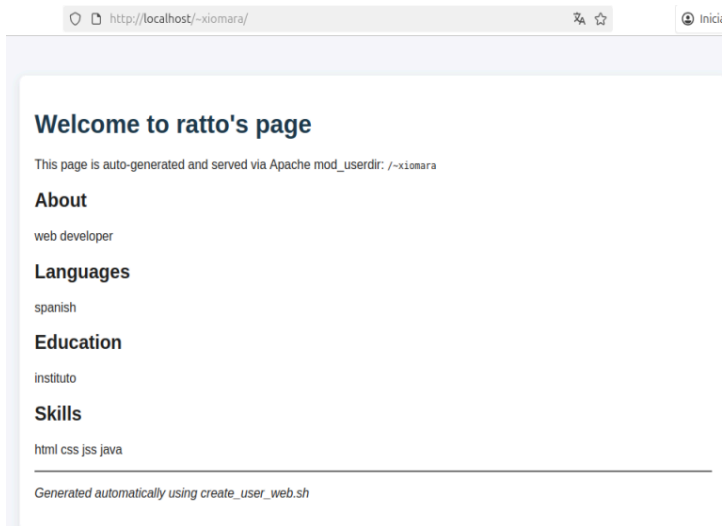
http://localhost/~iria/

Welcome to alvarez's page

This page is auto-generated and served via Apache mod_userdir: /~iria

About

web developer student

Languages

english,français and spanish

Education

instituto

Skills

html js css

_Generated automatically using create_user_web.sh_

Second user

Welcome to pasamar's page

This page is auto-generated and served via Apache mod_userdir: /~juan

About

web developer

Languages

english,spanish

Education

instituto daw

Skills

react

_Generated automatically using create_user_web.sh_

Third user

Welcome to ratto's page

This page is auto-generated and served via Apache mod_userdir: /~xiomara

About

web developer

Languages

spanish

Education

instituto

Skills

html css jss java

_Generated automatically using create_user_web.sh_

```
usuario@usuariovm:~$ ls -l /home
total 16
drwxr-xr-x  3 iria     iria     4096 oct 30 12:00 iria
drwxr-xr-x  3 juan     juan     4096 oct 30 12:09 juan
drwxr-x--- 16 usuario  usuario  4096 feb 14  2025 usuario
drwxr-xr-x  3 xiomara  xiomara  4096 oct 30 12:10 xiomara
usuario@usuariovm:~$
```

I have tried to create the users in my own var www field but you need permissions so it trows an error.

Appendix: Verifying mod_userdir is enabled

1.

```
usuario@usuariovm:~$ sudo a2enmod userdir
Module userdir already enabled
usuario@usuariovm:~$
```

2.

```
usuario@usuariovm:~$ apache2ctl -M | grep userdir
AH00558: apache2: Could not reliably determine the server's fully qualified domain name, using 127.0.1.1. Set the 'Serve
rName' directive globally to suppress this message
 userdir_module (shared)
usuario@usuariovm:~$
```