Wifi Setup by QR code

This script installs & set ups everything needed for a headless raspberry pi to be connected to a known wifi by a user without ssh knowledge.

How It Works

- 1. The script sets up a Wi-Fi hotspot on the Raspberry Pi.
- 2. It generates a QR code that can be printed and scanned with a mobile device.
- 3. When scanned, it opens a local webpage (http://192.168.4.1), where the user can enter Wi-Fi credentials.
- 4. The Raspberry Pi auto-connects to the entered Wi-Fi without requiring a reboot.

Fixed IP Addresses

To ensure reliable access, the Raspberry Pi always uses these static IPs:

- Hotspot Mode: 192.168.4.1 → Used when no known Wi-Fi is available (this is where the QR code points).
- Client Mode: 192.168.1.100 → Used when connected to a router.

Auto-Start on Boot

- The script ensures the Flask web server and hotspot service start on every boot, even if Wi-Fi is already set up.
- This allows users to update Wi-Fi credentials at any time.

Run install once

bash wifi-setup.sh

Testing

Run with bash -x wifi-setup.sh to test step-by-step.