**Implementation**

sudo apt update -y

sudo apt upgrade -y

sudo apt-get install python3-pip git

sudo -H pip3 install flask wifi

git clone https://github.com/walidbadar/webui.git

git clone <https://github.com/walidbadar/wificonfig.git>

crontab -e

\*/1 \* \* \* \* sudo /usr/bin/python3 /home/pi/wificonfig/ping.py

\*/1 \* \* \* \* sudo /usr/bin/python3 /home/pi/wificonfig/resetwifi.py

* Use the inbuilt systemd-networkd

sudo systemctl enable systemd-networkd.service systemd-resolved.service

sudo ln -sf /run/systemd/resolve/resolv.conf /etc/resolv.conf

Configuring wpa-supplicant

*wlan0 as AP*

* Create a new file using the command.

sudo nano /etc/wpa\_supplicant/wpa\_supplicant-wlan0.conf

* Add the following content and save the file by pressing Ctrl X, Y and Enter

country=EC

ctrl\_interface=DIR=/var/run/wpa\_supplicant GROUP=netdev

update\_config=1

network={

ssid="Mina"

mode=2

psk="admin1234"

}

* Give the user read, write permissions to the file

sudo chmod 600 /etc/wpa\_supplicant/wpa\_supplicant-wlan0.conf

* Restart wpa\_supplicant service

sudo systemctl disable wpa\_supplicant.service

sudo systemctl enable wpa\_supplicant@wlan0.service

Configuring Interfaces

* Create a new file using the command.

sudo nano /etc/systemd/network/08-wlan0.network

* Add the following content and save the file by pressing Ctrl X, Y and Enter

[Match]

Name=wlan0

[Network]

Address=192.168.5.101/24

Gateway=192.168.5.1

IPMasquerade=yes

IPForward=yes

DHCPServer=yes

[DHCPServer]

DNS=8.8.8.8

WebUI

<http://192.168.5.101>

sudo nano /lib/systemd/system/server.service

[Unit]

Description=WiFi conf server

After=multi-user.target

[Service]

Type=idle

ExecStart=/usr/bin/python3 /home/pi/webui/app.py

[Install]

WantedBy=multi-user.target

sudo systemctl enable server

sudo systemctl start server

**Note: Gpio 2 is used to show the status of the internet.**

**Gpio 25 is used to reset wifi setting. Connect a button between ground and gpio25.**