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#!/usr/bin/python

from Adafruit_CharLCD import Adafruit_CharLCD
from subprocess import *
from time import sleep, strftime
from datetime import datetime

lcd = Adafruit_CharLCD()

ipl = "hostname -I"
ipw = "wget -qO- http://ipecho.net/plain ; echo"
reg = "tail /home/pi/WTW_COMM/raw_wtw | grep C"
lcd.begin(16, 1)

def run_cmd(ipl):
    p = Popen(ipl, shell=True, stdout=PIPE)
    output = p.communicate()[0]
    return output

def run_cmd(ipw):
    p = Popen(ipw, shell=True, stdout=PIPE)
    output = p.communicate()[0]
    return output

def run_cmd(reg):
    p = Popen(reg, shell=True, stdout=PIPE)
    output = p.communicate()[0]
    return output

while 1:
    ipwan = run_cmd(ipw)
    iplan = run_cmd(ipl)

    lcd.clear()
    lcd.message('LabDog_____\n')
    lcd.message(datetime.now().strftime('%b %d %H:%M:%S'))
    sleep(3)

    lcd.clear()
    # lcd.message('IP LAN:\n')
    lcd.message('LAN %s\n' % (iplan))
    # sleep(2)

    # lcd.clear()
    # lcd.message('IP WAN:\n')
    lcd.message('WAN %s' % (ipwan))
    sleep(3)

    lcd.clear()
    registro = run_cmd(reg)
    lcd.message('%s' % (registro))
    sleep(5)
    registro = run_cmd(reg)
    lcd.clear()
    lcd.message('%s' % (registro))
    sleep(5)
```