1.

#!/usr/bin/python

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# SOFTWARE.

import sys

import time

import Adafruit\_DHT

# Parse command line parameters.

sensor\_args = { '11': Adafruit\_DHT.DHT11,

'22': Adafruit\_DHT.DHT22,

'2302': Adafruit\_DHT.AM2302 }

if len(sys.argv) == 3 and sys.argv[1] in sensor\_args:

sensor = sensor\_args[sys.argv[1]]

pin = sys.argv[2]

else:

print('Usage: sudo ./Adafruit\_DHT.py [11|22|2302] <GPIO pin number>')

print('Example: sudo ./Adafruit\_DHT.py 2302 4 - Read from an AM2302 connected to GPIO pin #4')

sys.exit(1)

# Try to grab a sensor reading. Use the read\_retry method which will retry up

# to 15 times to get a sensor reading (waiting 2 seconds between each retry).

while 1:

humidity, temperature = Adafruit\_DHT.read\_retry(sensor, pin)

# Un-comment the line below to convert the temperature to Fahrenheit.

# temperature = temperature \* 9/5.0 + 32

# Note that sometimes you won't get a reading and

# the results will be null (because Linux can't

# guarantee the timing of calls to read the sensor).

# If this happens try again!

if humidity is not None and temperature is not None:

print('The current temperature is {0:0.1f} C.'.format(temperature))

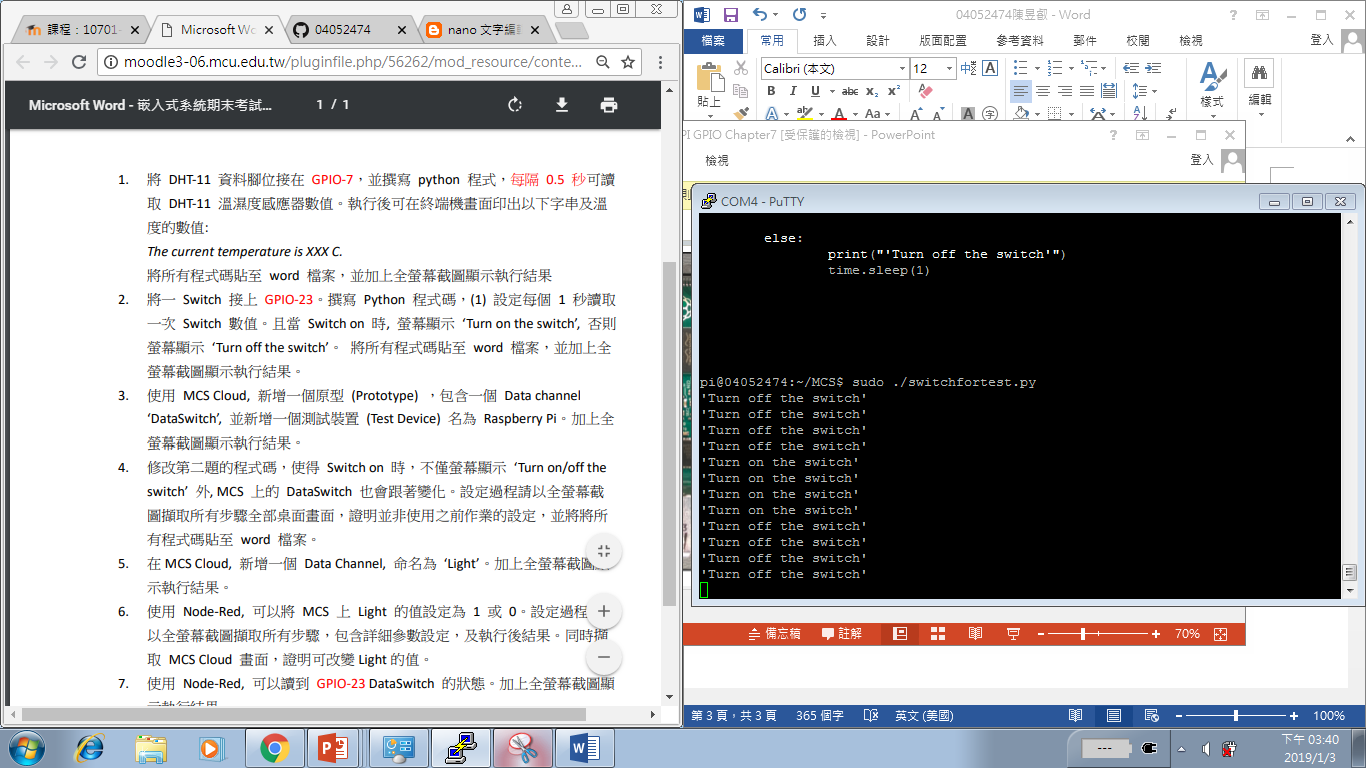
time.sleep(0.5)

else:

print('Failed to get reading. Try again!')

sys.exit(1)

2.



#!/usr/bin/python

import time

import sys

import RPi.GPIO as GPIO

GPIO.setmode(GPIO.BCM)

GPIO.setup(23,GPIO.IN,pull\_up\_down=GPIO.PUD\_UP)

while 1:

SwitchStatus=GPIO.input(23)

if SwitchStatus==0:

print("'Turn on the switch'")

time.sleep(1)

else:

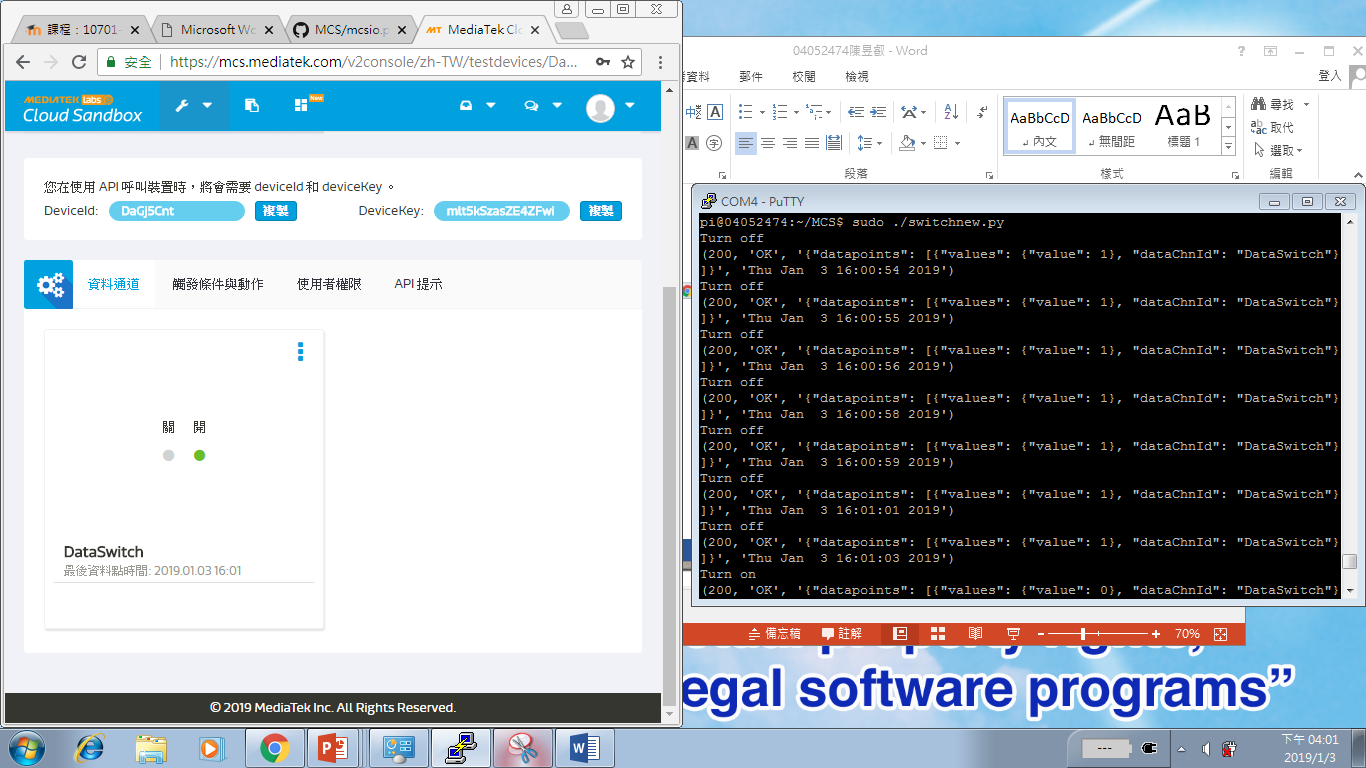
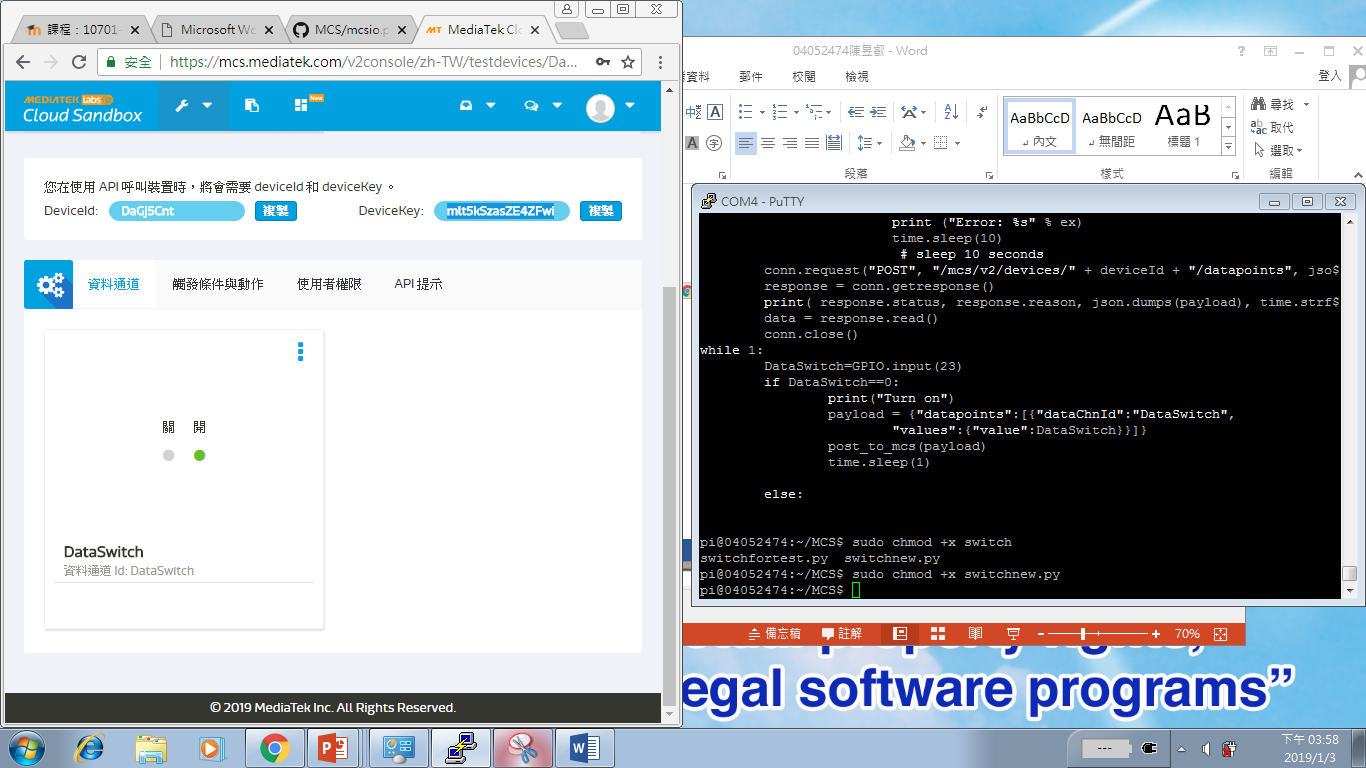
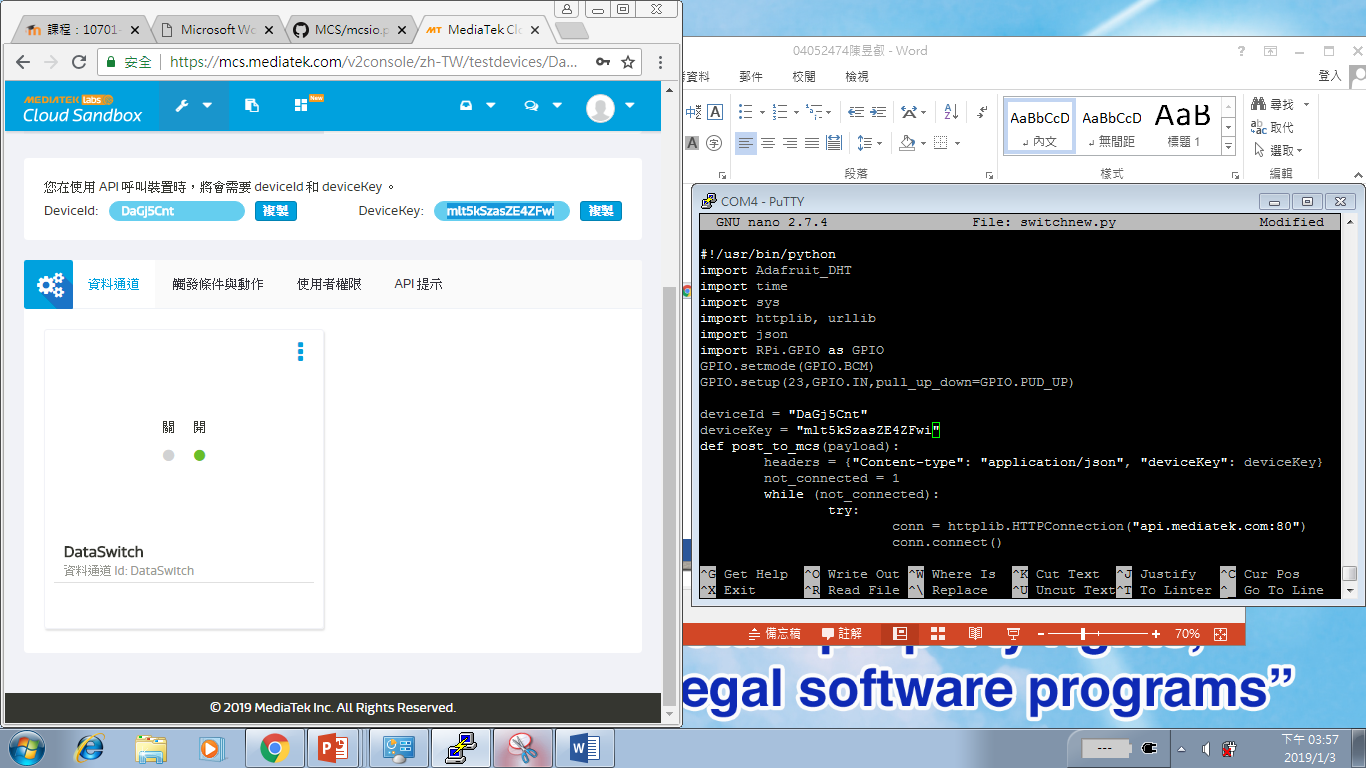
print("'Turn off the switch'")

time.sleep(1)

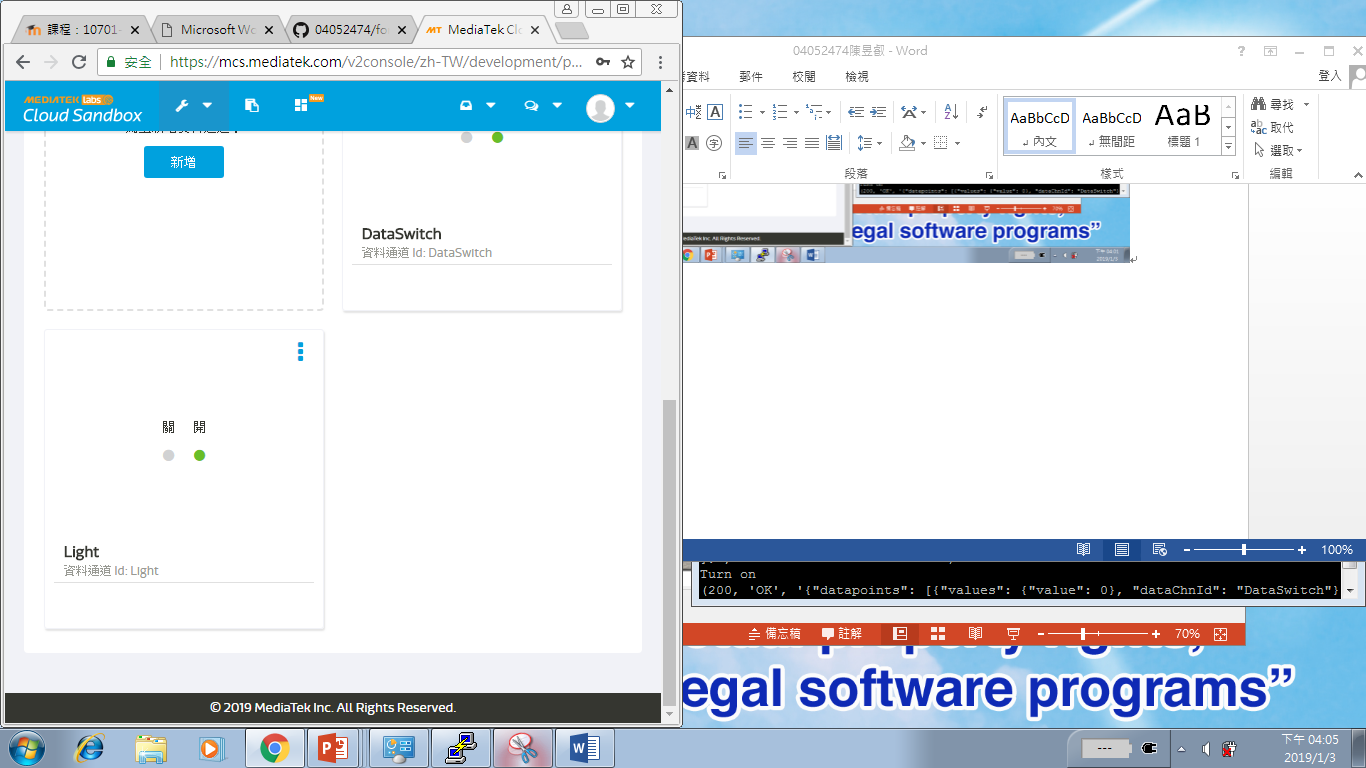
3.



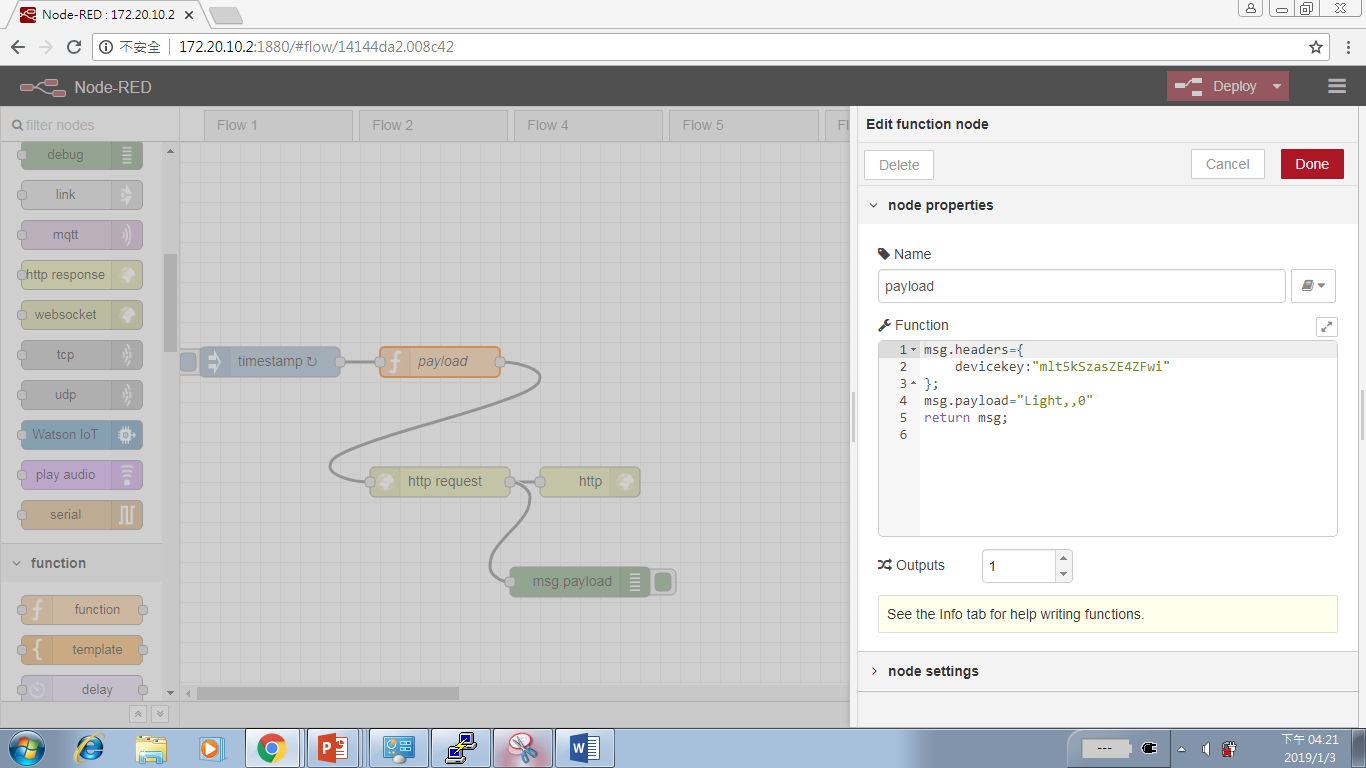
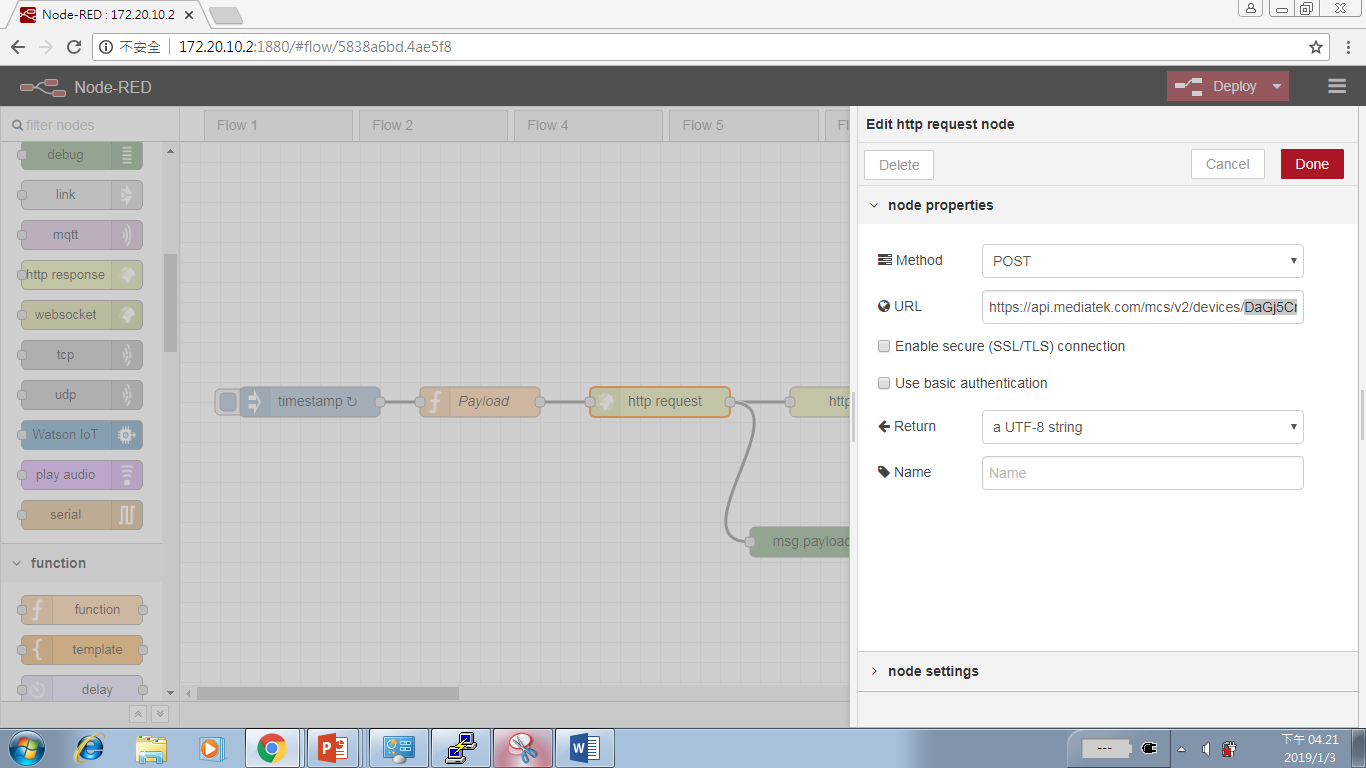
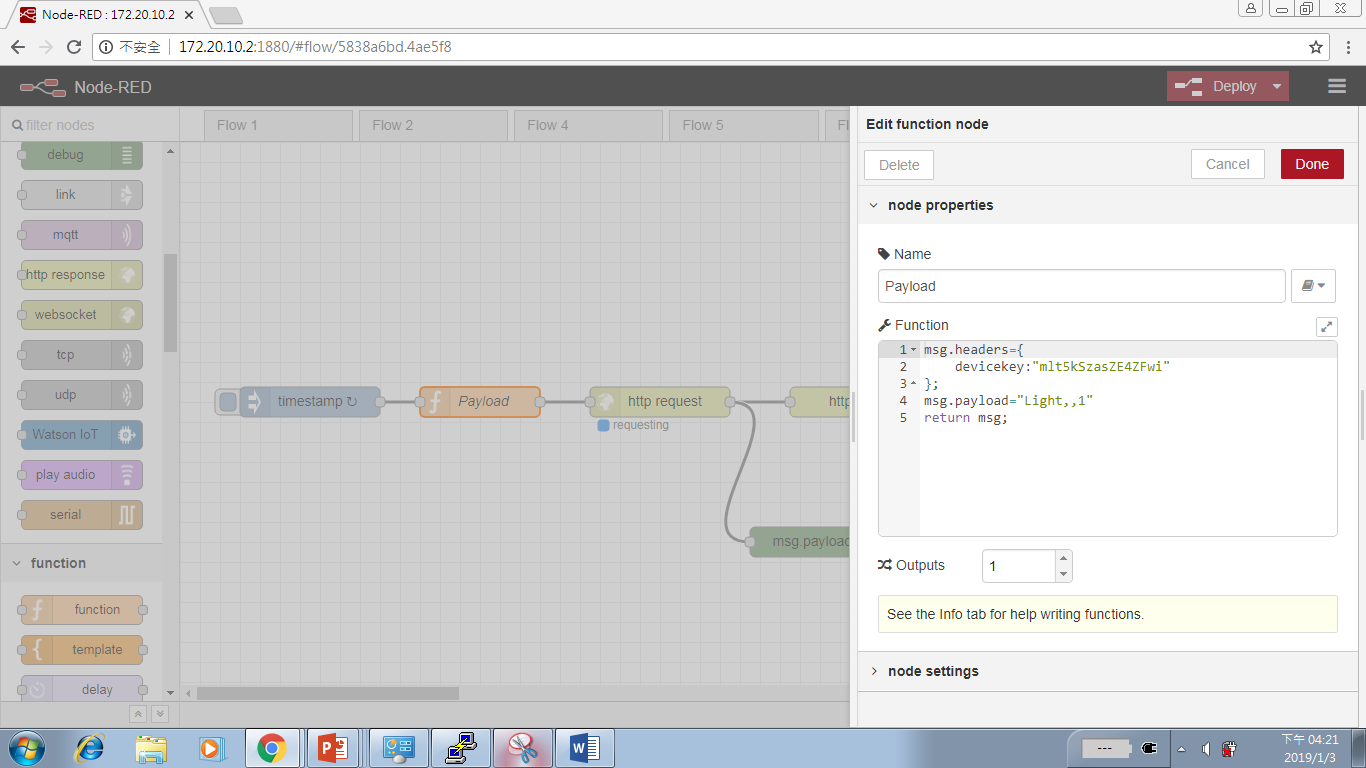
4.



5.



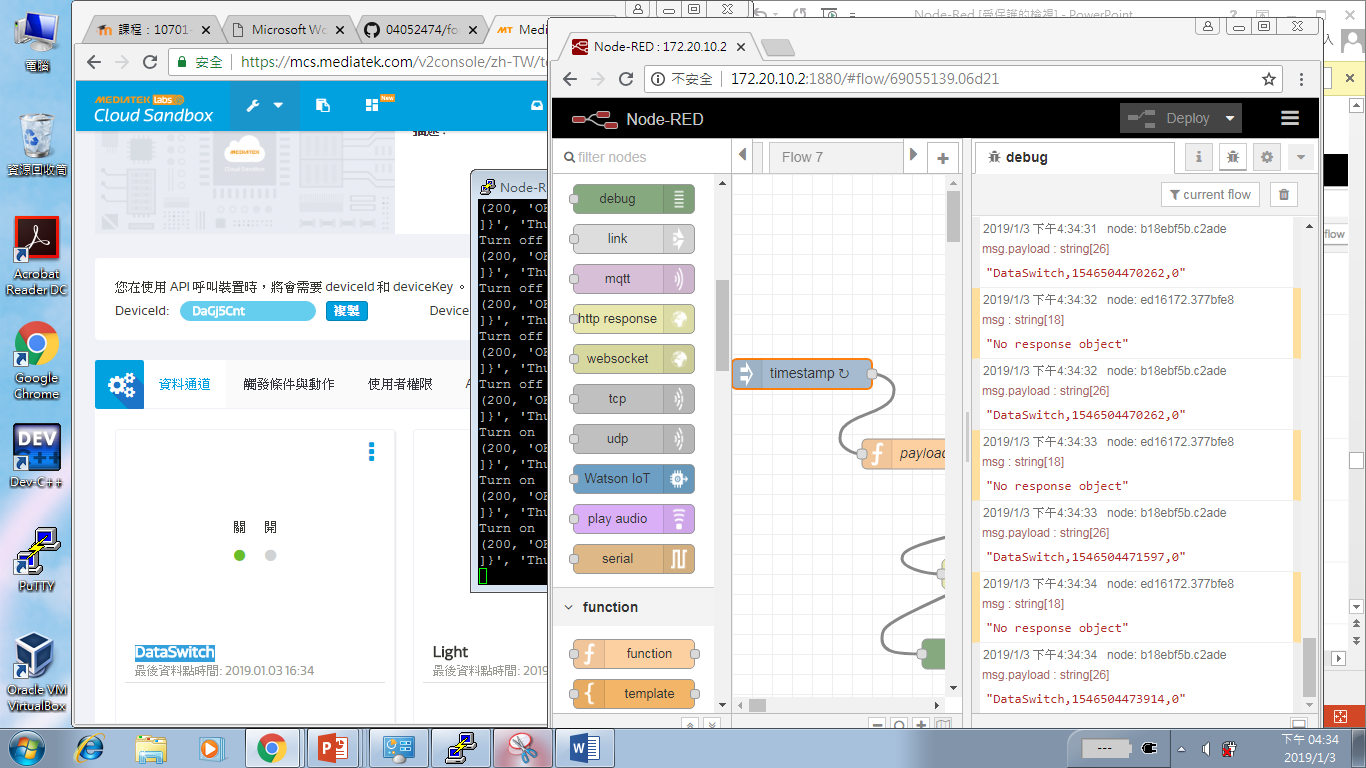
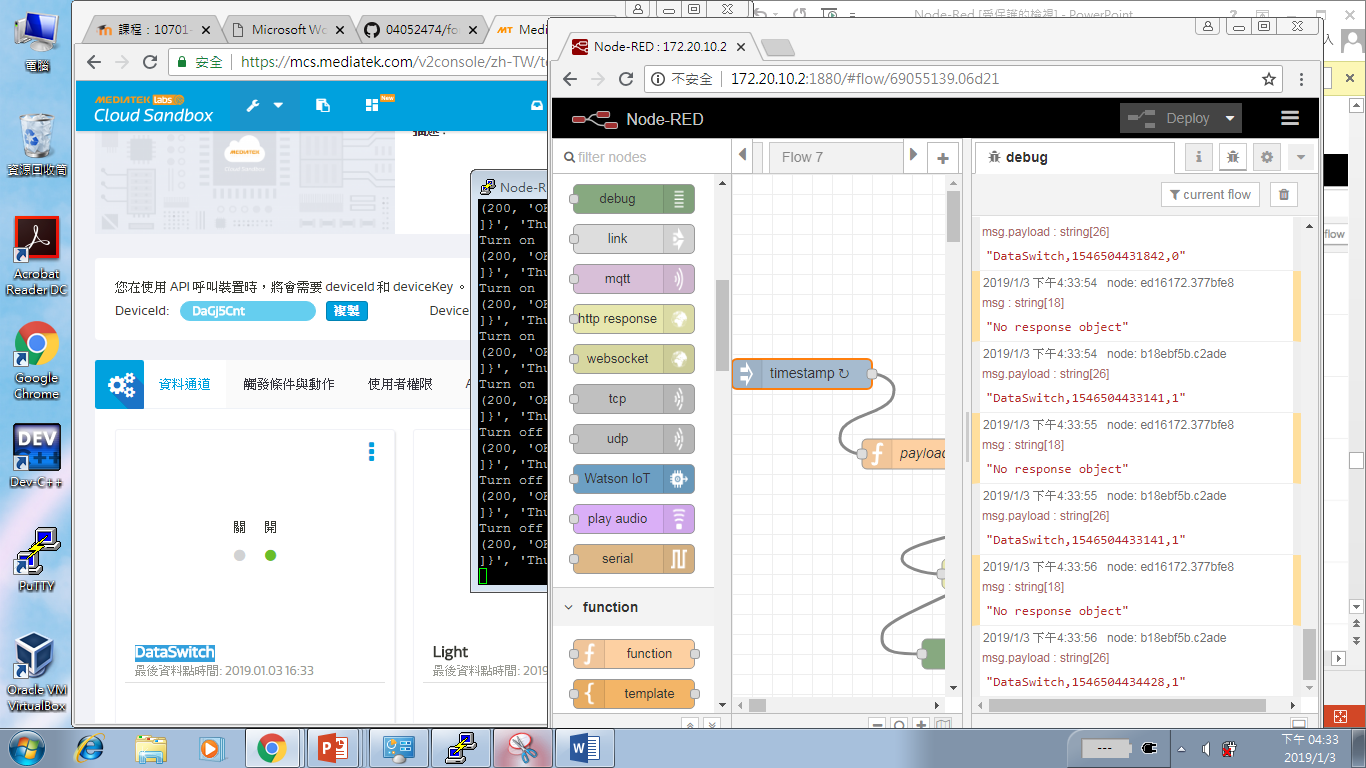
6.

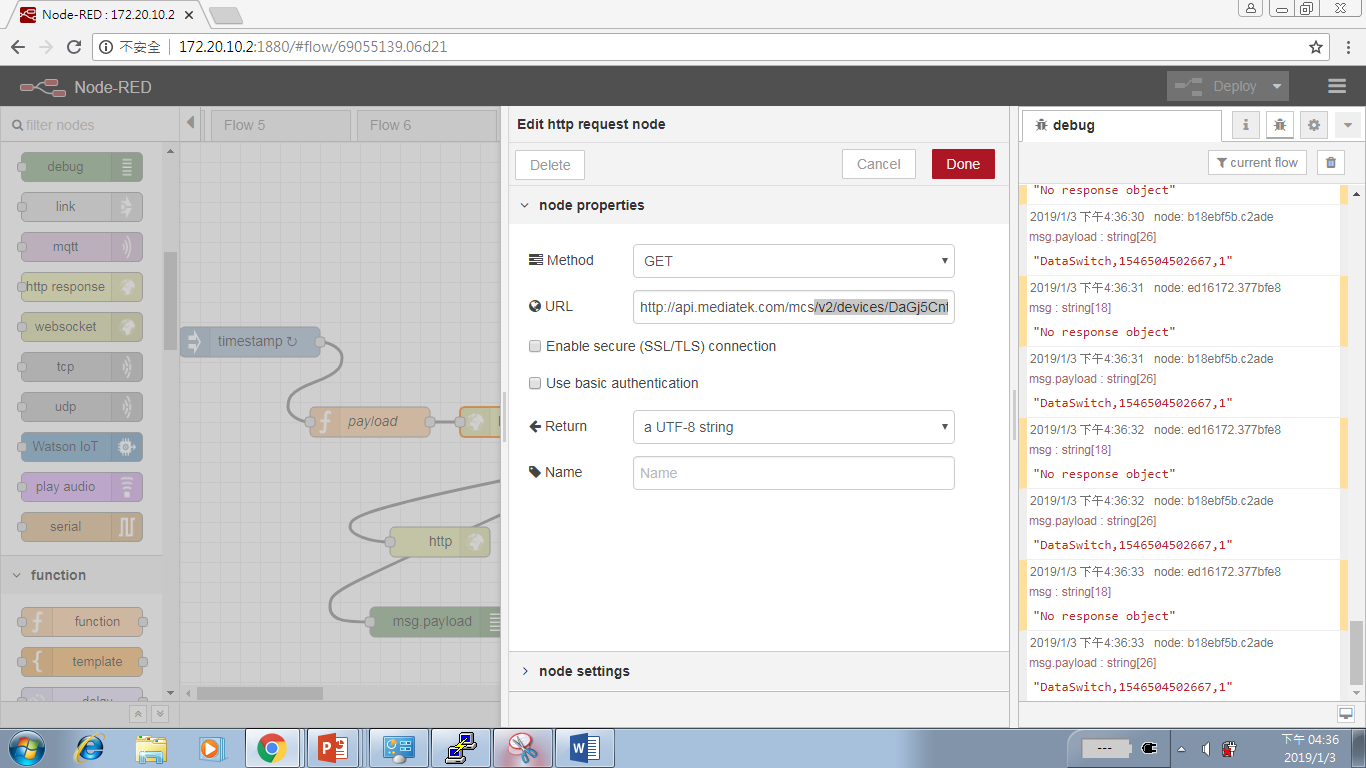


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7.





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