ASSIGNMENT 3

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PROJECT NAME	SMART WASTE MANAGEMENT SYSTEM IN METROPOLITAN CITIES

To initialize the GPIO ports on the Raspberry Pi we need to first import the Python library, the initialize the library and setup pin 8 as an output pin.

```
import RPi.GPIO as GPIO

# Import Raspberry Pi GPIO library

from time import sleep

# Import the sleep function from the time module

GPIO.setwarnings(False)

# Ignore warning for now

GPIO.setmode(GPIO.BOARD)

# Use physical pin numbering

GPIO.setup(8, GPIO.OUT, initial=GPIO.LOW)

# Set pin 8 to be an output pin and set initial value to low (off)
```

Next we need to turn the LED on and off in 1 second intervals by setting the output pin to either high (on) or low (off). We do this inside a infinite loop so our program keep executing until we manually stop it.

```
while True:

# Run forever

   GPIO.output(8, GPIO.HIGH)

# Turn on

   sleep(1)

# Sleep for 1 second
```

```
   GPIO.output(8, GPIO.LOW)
# Turn off
   sleep(1)
# Sleep for 1 second
```

Combining the initialization and the blink code should give you the following full Python program:

```
import RPi.GPIO as GPIO
# Import Raspberry Pi GPIO library
from time import sleep
# Import the sleep function from the time module
GPIO.setwarnings(False)
# Ignore warning for now
GPIO.setmode(GPIO.BOARD)
# Use physical pin numbering
GPIO.setup(8, GPIO.OUT, initial=GPIO.LOW)
 # Set pin 8 to be an output pin and set initial value to low (off)
while True:
# Run forever
 GPIO.output(8, GPIO.HIGH) # Turn on
 sleep(1)
# Sleep for 1 second
 GPIO.output(8, GPIO.LOW)
# Turn off
 sleep(1)
 # Sleep for 1 second
```