ASSIGNMENT 3

Assignment date	October 8
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Maximum marks	2 marks

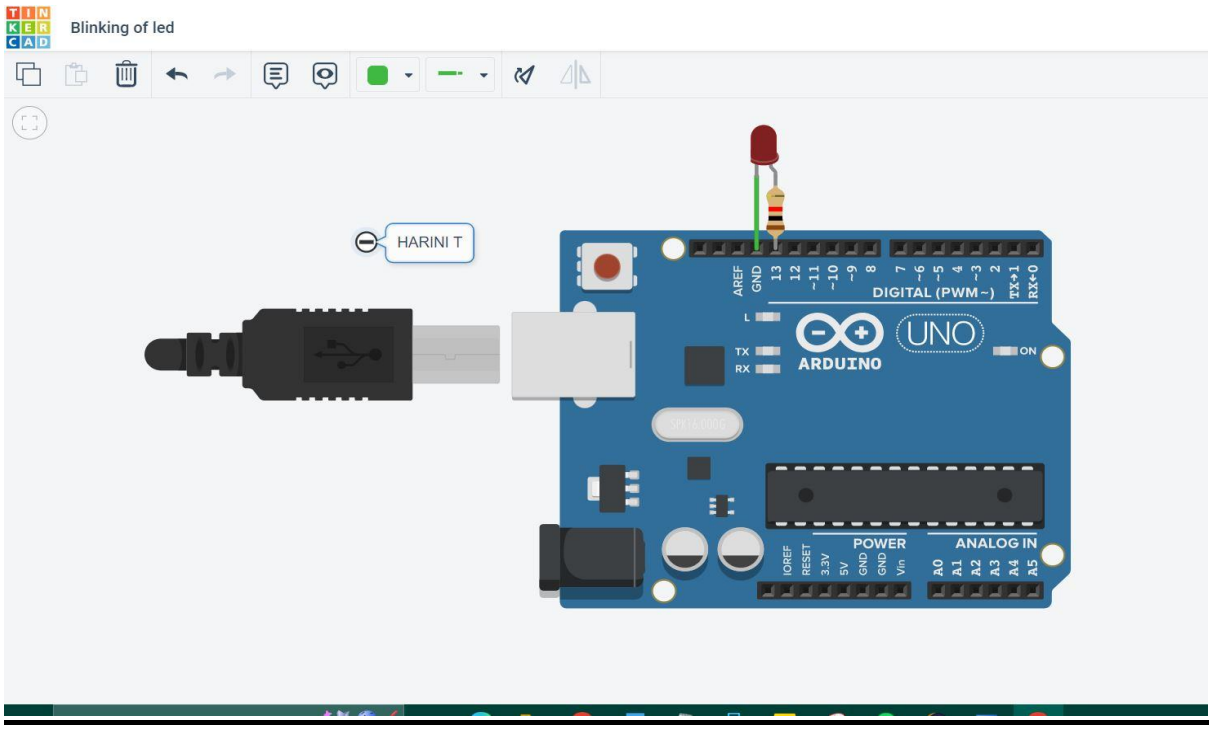
Question:

PYTHON CODE FOR BLINKING LED AND TRAFFIC LIGHTS FOR RASPBERRY PI.

Solution:

BLINKING OF LED:

Circuit diagram:



Python Code:

```
import time

## Import GPIO library
import RPi.GPIO as GPIO

## Use board pin numbering
GPIO.setmode(GPIO.BOARD)

## Setup GPIO Pin 11 to OUT
GPIO.setup(11, GPIO.OUT)

while True:
        ## Turn on Led
        GPIO.output(11,True)

         ## Wait for one second
        time.sleep(1)

        ## Turn off Led
        GPIO.output(11,False)

        ## Wait for one second
        time.sleep(1)
```

TRAFFIC LIGHT:

```
import Rpi.GPIO as GPIO

import time import signal

import sys


#Setup

GPIO.setmode(GPIO.BCM)
```

```
GPIO.setup(9,GPIO.OUT)
GPIO.setup(10,GPIO.OUT)
GPIO.setup(11,GPIO.OUT)

#Turn off all lights when user ends demo
def allLightsOff(signal,framer):
GPIO.output(9,False)
GPIO.output(10,False)
GPIO.output(11,False)
GPIO.cleanup()
sys.exit(0)
signal.signal(signal.SIGINT,allLightsOff)

#Loop forever
while True:
        #Red
        GPIO.output(9,True)
         Time.sleep(3)

        #Red and amber
        GPIO.output(10,True)
        Time.sleep(1)

        #Green
        GPIO.output(9,False)
```

```
        GPIO.output(10,False)
        GPIO.output(11,True)
        Time.sleep(5)

         #Amber
        GPIO.output(11,False)
        GPIO.output(10,True)
        Time.sleep(2)

#Amber off(red comes on at top of loop)
GPIO.output(10,False)
```