

ASSIGNMENT -3

Led Blinking

Code:

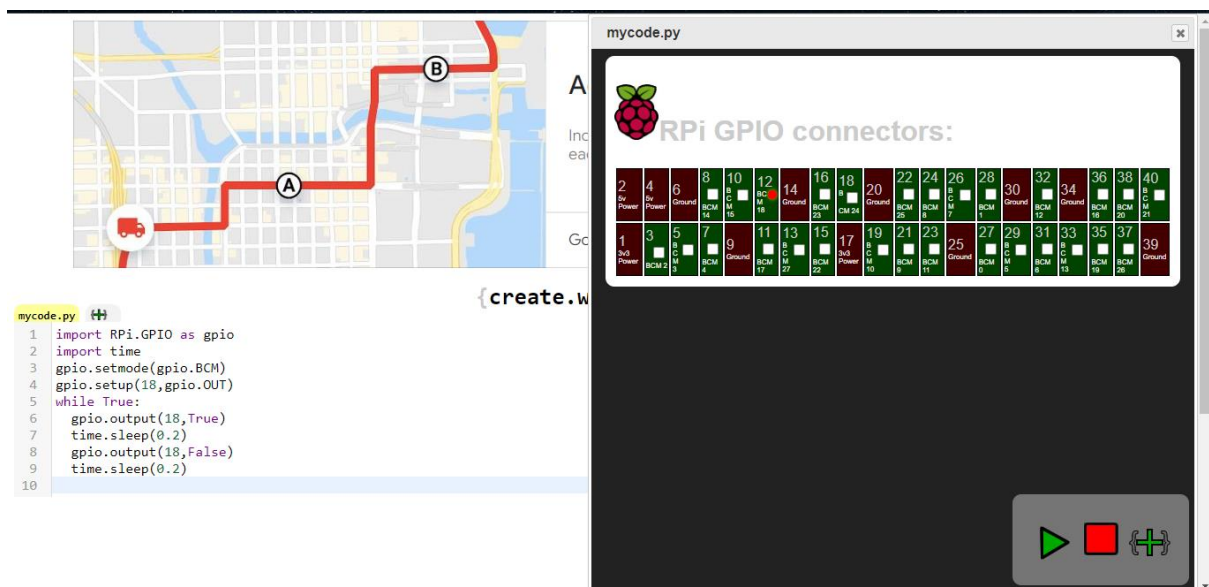
```
import RPi.GPIO as gpio
import time

gpio.setmode(gpio.BCM)
gpio.setup(18,gpio.OUT)

while True:

    gpio.output(18,True)
    time.sleep(0.2)
    gpio.output(18,False)
    time.sleep(0.2)
```

Output:



The screenshot displays a Raspberry Pi IDE interface. On the left, a map shows a red route with points A and B. Below the map, a code editor window titled 'mycode.py' contains the following Python code:

```
1 import RPi.GPIO as gpio
2 import time
3 gpio.setmode(gpio.BCM)
4 gpio.setup(18,gpio.OUT)
5 while True:
6     gpio.output(18,True)
7     time.sleep(0.2)
8     gpio.output(18,False)
9     time.sleep(0.2)
10
```

On the right, a window titled 'mycode.py' displays a diagram of the Raspberry Pi GPIO connectors. The diagram shows the 40-pin header with pins numbered 1 to 40. Pins 1, 5, 9, 13, 17, 21, 25, 29, 33, 37, and 40 are labeled as Ground. Pins 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32, 34, 36, 38, and 40 are labeled as BCM. Pins 3, 7, 11, 15, 19, 23, 27, 31, 35, and 39 are labeled as BCM. Pins 16, 18, 20, 22, 24, 26, 28, 30, 32, 34, 36, 38, and 40 are labeled as BCM. Pins 1, 5, 9, 13, 17, 21, 25, 29, 33, 37, and 40 are labeled as Ground. The diagram is titled 'RPi GPIO connectors:' and includes a Raspberry Pi logo.

Traffic lights

Code:

```
from gpiozero import Button, LED, Buzzer
```

```
from time import sleep
```

```
buzzer = Buzzer(15)
```

```
button = Button(21)
```

```
light= LED(25, 8, 7)
```

```
while True:
```

```
    button.wait_for_press()
```

```
    buzzer.on()
```

```
    LED.green.on()
```

```
    sleep(1)
```

```
    LED.amber.on()
```

```
    sleep(1)
```


```
    LED.red.on()
```

```
    sleep(1)
```

```
    LED.off()
```

```
    buzzer.off()
```

Output:

```
mycode.py   
1 from gpiozero import Button, LED, Buzzer  
2 from time import sleep  
3  
4 buzzer = Buzzer(15)  
5 button = Button(21)  
6 light= LED(25, 8, 7)  
7  
8 while True:  
9     button.wait_for_press()  
10     buzzer.on()  
11     LED.green.on()  
12     sleep(1)  
13     LED.amber.on()  
14     sleep(1)  
15     LED.red.on()  
16     sleep(1)  
17     LED.off()  
18     buzzer.off()
```

{ create.w

