Assignment 3

Write python code for blinking LED and Traffic lights for Raspberry pi.

Code:

```
void setup()
{
  pinMode(LED_BUILTIN, OUTPUT);
  Serial.begin(9600);
}
void loop()
{
  int p = digitalRead(4);
  Serial.println(p);
   if(p)
    Serial.println("Motion detected!!!");
  if(p==1){ digitalWrite(8, HIGH);
  delay(1000);
  }
    else
  {digitalWrite(8, LOW);
  delay(1000);
  }
```

```
  double a= analogRead(A0);
  double t= (((a/1024)*5)-0.5)*100;
  Serial.print("Temp value: ");
  Serial.println(t);
  if(t>100)
  { digitalWrite(13, HIGH);
  delay(1000);
   tone(12, 131);
    delay(250);
    noTone(12);
    delay(125);
  }
  else
  {digitalWrite(13, LOW);
  delay(1000);
  }
   delay(1000);
}
```

```
pi@raspberrypi:~ $ cd gpio_python_code/
pi@raspberrypi:~/gpio_python_code $ touch 3_blink.py
pi@raspberrypi:~/gpio_python_code $ touch 3_blink_forever.py
pi@raspberrypi:~/gpio_python_code $ nano 3_blink.py
pi@raspberrypi:~/gpio_python_code $ nano 3_blink_forever.py
pi@raspberrypi:~/gpio_python_code $ sudo python 3_blink.py
3_blink.py:10: RuntimeWarning: This channel is already in use, continuing anyway
.  Use GPIO.setwarnings(False) to disable warnings.
  GPIO.setup(17,GPIO.OUT)
3_blink.py:11: RuntimeWarning: This channel is already in use, continuing anyway
.  Use GPIO.setwarnings(False) to disable warnings.
  GPIO.setup(27,GPIO.OUT)
lights on
lights off
lights on
lights off
pi@raspberrypi:~/gpio_python_code $
```