AIM: 8 leds blink 11110000 -- 00001111 with interval of 8 sec.

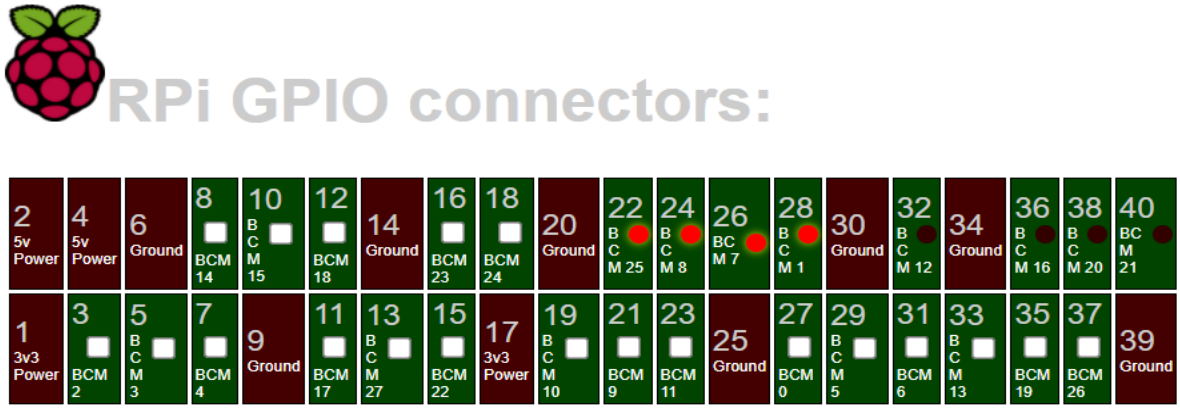
Code:

```
# import raspberry pi GPIO module
import RPi.GPIO as GPIO
import time

leds = [22,24,26,28,32,36,38,40]
GPIO.setup(leds, GPIO.OUT)


while True:
    GPIO.output(leds[:4], GPIO.HIGH)
    GPIO.output(leds[4:],GPIO.LOW)
    time.sleep(8)
    GPIO.output(leds[:4], GPIO.LOW)
    GPIO.output(leds[4:],GPIO.HIGH)
    time.sleep(8)
```

Output:



Conclusion:

Here, we have selected eight LEDs for this experiment. The pattern of led on/off is as shown in the output picture as 11110000 and after that 00001111.

Python Study jam

7) WPP to enter 2 angles and using function thirdangle(angle1, angle2) calculate third angle.

Code:

```
def thirdangle(a1,a2):
        return 180.0 - a1 - a2

angle1 = float(input("Enter First Angle: "))
angle2 = float(input("Enter Second Angle: "))
print(f"Third Angle: {thirdangle(angle1,angle2)}")
```

Output:

```
Enter First Angle: 60
Enter Second Angle: 45.3
Third Angle: 74.7
```

16) Write a Python program to concatenate all elements in a list into a string and return it using function.

Code:

```
def list_to_string(ls):
   temp = ''
   for ele in ls:
      temp += str(ele)
   return temp


ls = [10, 20, 30, 40]
temp = list_to_string(ls)
print(f"List has {temp} and the type of it is {type(temp)}.")
```

Output:

```
List has 10203040 and the type of it is <class 'str'>.
```