Ex. No : 6 **Interface motor using relay with Raspberry Pi, write a program to turn ON motor when push button is pressed.**

Servo Motor:

Program:

```
import RPi.GPIO as IO          # calling for header file for GPIO's of PI
import time                    # calling for time to provide delays in program
IO.setwarnings(False)          # do not show any warnings
IO.setmode (IO.BCM)            # programming the GPIO by BCM pin numbers.
IO.setup(19,IO.OUT)            # initialize GPIO19 as an output
p = IO.PWM(19,50)              # GPIO19 as PWM output, with 50Hz frequency
p.start(7.5)                   # generate PWM signal with 7.5% duty cycle
while 1:                       # execute loop forever
    p.ChangeDutyCycle(7.5)     # change duty cycle for getting the servo position to 90º
    time.sleep(1)              # sleep for 1 second
    p.ChangeDutyCycle(12.5)    # change duty cycle for getting the servo position to 180º
    time.sleep(1)              # sleep for 1 second
    p.ChangeDutyCycle(2.5)     # change duty cycle for getting the servo position to 0º
    time.sleep(1)              # sleep for 1 second
```