What the program does:

Greets user 5 times in the morning, 4 times in the night

Output:

```
tao@kali:~/myshellcode$ ./loop
Good morning
Good morning
Good morning
Good morning
Good morning
Good night
Good night
Good night
Good night
tao@kali:~/myshellcode$
```

Source code:

```asm
section .data
    MorningGreeting: db "Good morning",0xa
    morningGreetingLen equ $-MorningGreeting

    NightGreeting: db "Good night",0xa
    nightGreetingLen equ $-NightGreeting

section .text
    global _start

_start:
    mov cl,0x5 ; Max times morning greeting will loop
    jmp Day    ; Jumps to morning greeting

Day:
    push ecx     ; Saves current value of counter in stack

    mov al,0x4  ; Syscall # for write
    mov bl,0x1  ; File descriptor - STDOUT
    mov ecx,MorningGreeting     ; Pointer to morning greeting message
    mov dx,morningGreetingLen   ; Morning greeting message length
    int 0x80                    ; Calls kernel

    pop ecx     ; Restores the current loop iteration from stack to register
    loop Day    ; Decrements loop counter by 1 and if it is 0, stops looping

    mov cl,0x4  ; Max times night greeting will loop
    jmp Night   ; Jumps to night greeting subroutine

Night:
    push ecx     ; Saves current value of counter in stack

    mov al,0x4  ; Syscall # for write
    mov bl,0x1  ; File descriptor - STDOUT
    mov ecx,NightGreeting       ; Pointer to night greeting message
    mov dx,nightGreetingLen     ; Night greeting message length
    int 0x80     ; Calls kernel

    pop ecx     ; Restores the current loop iteration from stack to register
    loop Night  ; Decrements loop counter by 1 and if it is 0, stops looping

    jmp ExitProgram ;Jumps to exit subroutine

ExitProgram:
    mov al,0x1      ; Syscall # for exit
    xor ebx,ebx     ; Exit code
    int 0x80        ; Calls kernel
```

47,5

Shellcode:

```
tao@kali:~/myshellcode$ objdump -D -M intel ./loop | grep '[0-9a-f]:' | grep -v "Disa
ssem*" | cut -d $'\t' -f2 | tr -d ' \n' | sed 's/..\\x&/g'
\xb1\x05\xeb\x00\x51\xb0\x04\xb3\x01\xb9\x00\xa0\x04\x08\x66\xba\x0d\x00\xcd\x80\x59\
xe2\xed\xb1\x04\xeb\x00\x51\xb0\x04\xb3\x01\xb9\x0d\xa0\x04\x08\x66\xba\x0b\x00\xcd\x
80\x59\xe2\xed\xeb\x00\xb0\x01\x31\xdb\xcd\x80\x47\x6f\x6f\x64\x20\x6d\x6f\x72\x6e\x6
9\x6e\x67\x0a\x47\x6f\x6f\x64\x20\x6e\x69\x67\x68\x74\x0atao@kali:~/myshellcode$
```