

Lab 7 Exercise 1 - Showing a Stack Memory Error

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Exercise 1

We prepare and compile two binaries from L7-ex1.c - one with stack protection (*fstackproc.o* for Q1) and another without (*fnostackproc.o* for Q2).

```
$ gcc -fstack-protector L7-ex1.c -o fstackproc.o  
$ gcc -fno-stack-protector L7-ex1.c -o fnostackproc.o
```

1. Stack overflows when string input length is more than 8. (seg fault)

```
$ ./fnostackproc.o
```

Input: abcdefghi

```
f = 0x562788d7e321  
Enter a string: abcdefghi  
string = [abcdefgh  
]  
Segmentation fault (core dumped)
```

2. Stack overflows when string input length is more than 8. (stack smashing detected)

```
$ ./fstackproc.o
```

Input: abcdefghi

```
f = 0x560640748364  
Enter a string: abcdefghi  
string = [abcdefghi]  
*** stack smashing detected ***: terminated  
Aborted (core dumped)
```

END