

Exercises

8 – Signals and Error Handling

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Exercise 1

Consider a program that reads memory location 0, which is an invalid location for user processes:

```
int main() {  
    int a;  
    a = *(int *)0;  
}
```

The program will cause a Segmentation fault. The task is to add a signal handler to trap the signal. The desired output should be:

Output

```
I got signal 11
```

Exercise 2

Write a C program that accepts two integers as argument, divides the first number by the second. When the divisor is zero, the program shall catch the corresponding signal, rather than crashing.

Example:

Input

```
./myprogram 2 3
```

Output

```
0.67
```

Input

```
./myprogram 2 0
```

Output

```
Received SIGFPE, Divide by Zero Exception
```