

Stack Mechanism Discussion with Time Complexity

8. Exit

```
case 7:  
    exit(0);  
    break;
```

exit(0) , where 0 refers successful exit from the program.

It takes constant time `c` to exit from the program i.e. $O(1)$.

But does it empty the stack frame of the main function?

After the exit(0) is called,

The Operating System destroys the entire process memory.

That includes:

- ***Stack segment***
- ***Heap segment***
- ***Global/static memory***
- ***Code segment***

Everything is removed at once.

Entire process is killed immediately.

No manual stack frame popping.

Hence , now our contiguous memory is freed.

	0x5010
	0x500C
	0x5008
	0x5004
	0x5000

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	0x4010
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