

xv6©-rev10
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The exit syscall

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sys_exit

```
3766 sys_exit(void) {  
    exit();  
    return 0; // not reached  
}
```

exit

This is really a very simple system call

1. Release resources the process holds:
 - Close files.
 - We should have released user mode memory. xv6 DOES NOT do that.
2. Reparent child processes to process 1.
3. Declare event `myproc()->parent`.

The deallocation of the `proc` structure, kernel stack, and user memory is done at the parent.

exit (1)

```
2627 exit(void) {  
    struct proc *p;  
    int fd;  
  
    if (myproc() == initproc)  
        panic("init_exiting");  
  
    for (fd = 0; fd < NOFILE; fd++) {  
        if (myproc->ofile[fd]) {  
            fileclose(myproc()->ofile[fd]);  
            myproc()->ofile[fd] = 0;  
        }  
    }  
  
    begin_op(); iput(myproc()->cwd); end_op();  
    myproc()->cwd = 0;
```

exit (2)

2649

```
    acquire(&ptable.lock);
    wakeup1(myproc()->parent);
    for (p = ptable.proc; p < &ptable.proc[NPROC]; p++) {
        if (p->parent == myproc()) {
            p->parent = initproc;
            if (p->state == ZOMBIE)
                wakeup1(initproc);
        }
    }

    myproc()->state = ZOMBIE;
    sched();
    panic("zombie_exit");
}
```