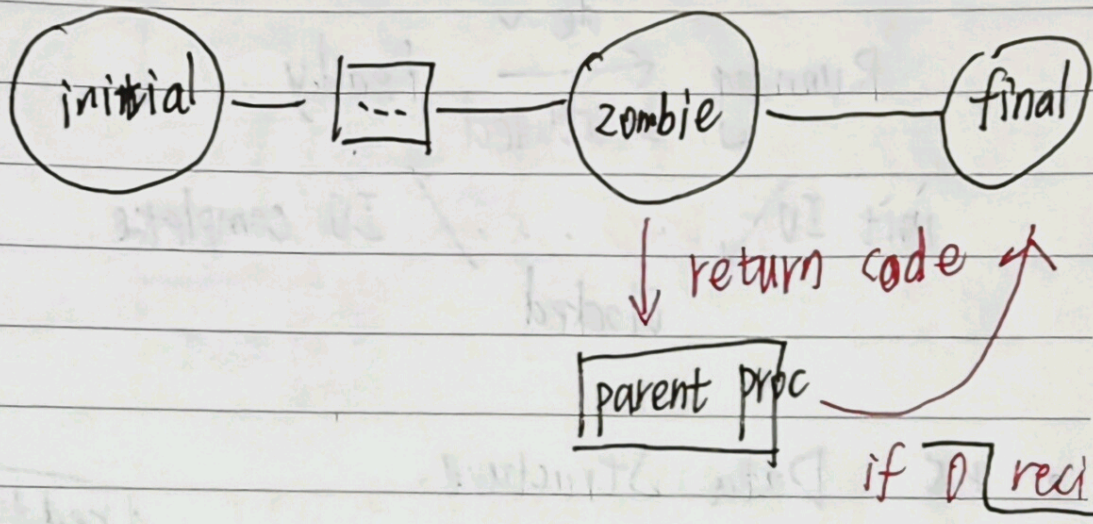
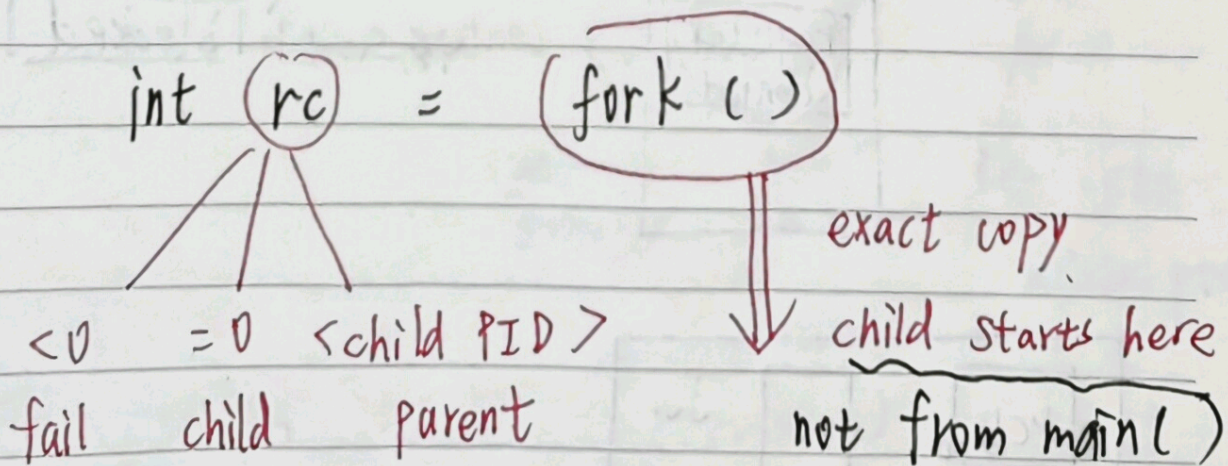


\* 4.45 . xv6 process states



## § 5. PROCESS API

### • 5.1 fork



CPU scheduler is complex

→ non determinism order → `wait()`



### • 5.2 wait ( )

```
int rc = fork ( )
```

.....

```
if (rc > 0) // parent
```

```
int wait wc = wait ( )
```

child PID

resume after child  
exit

### • 5.3 exec ( )

P1

exec ( args - for - another - prog 2 )

~~P1~~ replace process 2

when P2 exits

exit

prog 1 removed

prog 2 start

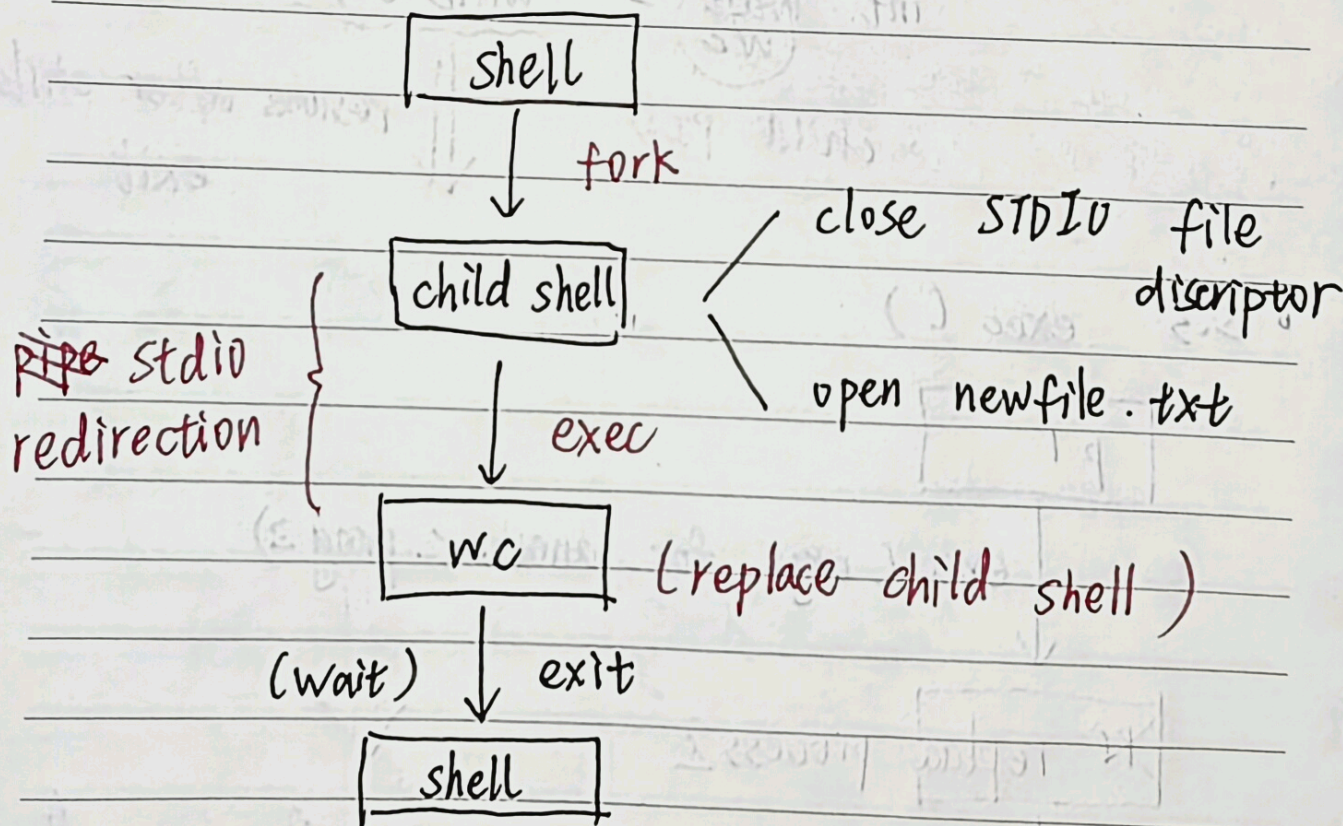
Skip P1 remainder codes



## • 5.4 why fork vs exec

eg1: Unix shell

prompt > wc hello.txt > newfile.txt



eg2: prompt > ls -l | wc -l

