

- How processes are created & managed in Linux?
- Creation

The first process init process is created and executed by the kernel as the first user-space process during the final stage of the system's boot sequence, with PID=1, always.

While the creation of new processes involves two steps using system calls.

1. fork(), A primary mechanism that allows the parent process to create the exact copy of itself, a child process.

2. exec() A child process created after "forking" the parent process may need to run a different executable, exec() allows to replace current's process's memory space, code and data with a new program.



Although the PID remains same but program being executed is different.

- clone() This system call provides more precised control over process creation with certain specifications of resources (mem, file, signal handlers), shared b/w parent & child.