

## Question 2.1:

Kill command is a built-in command which is used to terminate processes manually. kill command sends a signal to a process which terminates the process.

The advantage of kill command that it's handleability but the negative side that could be a race condition because the kill command is depend on pid that could recycled.

### First method:

**Procs:** is a special filesystem in Unix-like operating systems that presents information about processes and other system information in a hierarchical file-like structure, providing a more convenient and standardized method for dynamically accessing process data held in the kernel than traditional tracing methods or direct access to kernel memory.

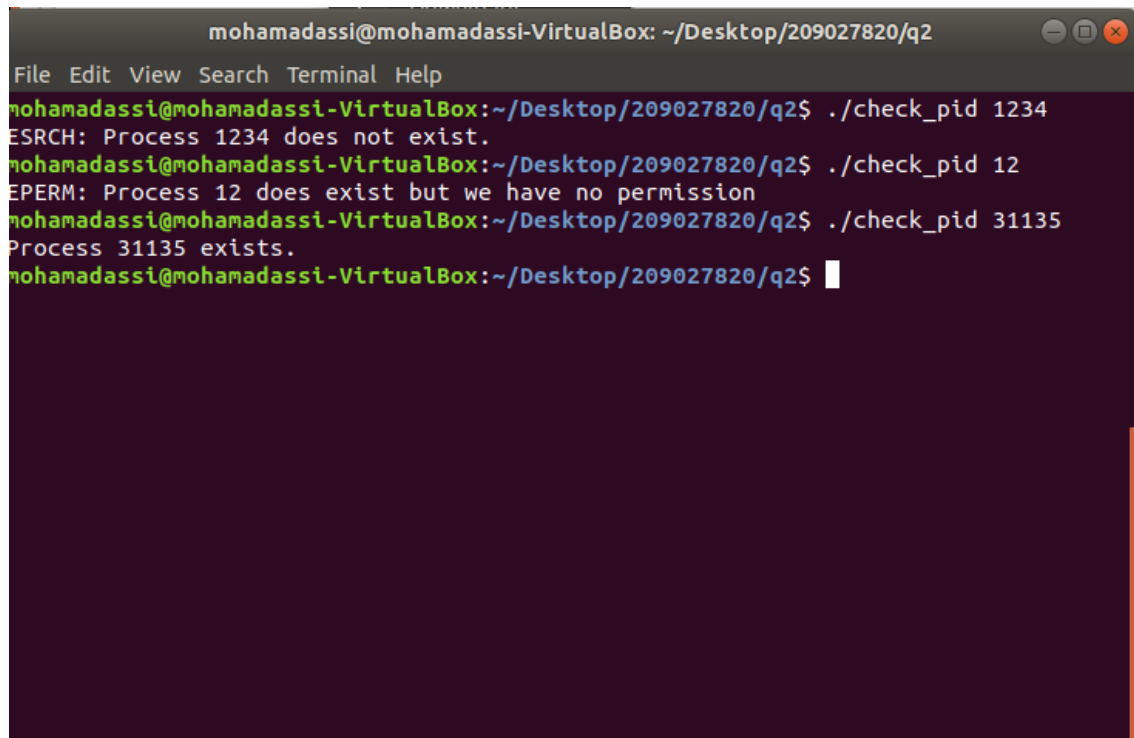
The advantage of procs that give a data on the process to used later But the negative side that that it's not work in any OS.

### Second method:

**ps:** displays information about a selection of the active processes. If you want a repetitive update of the selection and the displayed information.

The advantage of ps that we can know process status despite of we cannot send a signal but the negative side that if the process name will begin with grep the approach is fail.

## Screenshot for Q2.0:

A terminal window titled 'mohamadassi@mohamadassi-VirtualBox: ~/Desktop/209027820/q2'. The window has a menu bar with 'File', 'Edit', 'View', 'Search', 'Terminal', and 'Help'. The terminal shows three commands and their outputs: 1. Command: './check\_pid 1234', Output: 'ESRCH: Process 1234 does not exist.' 2. Command: './check\_pid 12', Output: 'EPERM: Process 12 does exist but we have no permission' 3. Command: './check\_pid 31135', Output: 'Process 31135 exists.' The prompt is 'mohamadassi@mohamadassi-VirtualBox:~/Desktop/209027820/q2\$' and there is a cursor at the end of the last line.

```
mohamadassi@mohamadassi-VirtualBox: ~/Desktop/209027820/q2
File Edit View Search Terminal Help
mohamadassi@mohamadassi-VirtualBox:~/Desktop/209027820/q2$ ./check_pid 1234
ESRCH: Process 1234 does not exist.
mohamadassi@mohamadassi-VirtualBox:~/Desktop/209027820/q2$ ./check_pid 12
EPERM: Process 12 does exist but we have no permission
mohamadassi@mohamadassi-VirtualBox:~/Desktop/209027820/q2$ ./check_pid 31135
Process 31135 exists.
mohamadassi@mohamadassi-VirtualBox:~/Desktop/209027820/q2$
```