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## Activity 4.1 – Process & Process Management

1. Create a sleep process and send a SIGSTOP signal to put this process into stopped state. Take a screenshot that shows that this process is now in the stopped state (T). Hint: Use --help to see how to use the kill command.

Step 1 – Create the sleep process as a background, followed with ampersand (&)

```
ramzy@ramzy-VirtualBox:~$ sleep 10000 &
[1] 12602
ramzy@ramzy-VirtualBox:~$ ps -u | grep sleep
ramzy      12602  0.0  0.0  17028  1044 pts/0    S   21:43   0:00  sleep 10000
ramzy      12607  0.0  0.0  17868  2444 pts/0    S+  21:43   0:00  grep --color
```

Step 2 – Send the SIGSTOP signal using the kill command (by signal name) and specify the PID i.e 12602

```
ramzy@ramzy-VirtualBox:~$ kill -SIGSTOP 12602
ramzy@ramzy-VirtualBox:~$ ps -u | grep sleep
ramzy      12602  0.0  0.0  17028  1044 pts/0    T   21:43   0:00  sleep 10000
ramzy      13213  0.0  0.0  17868  2492 pts/0    S+  21:54   0:00  grep --color
=auto sleep
[1]+  Stopped                  sleep 10000
ramzy@ramzy-VirtualBox:~$
```

Notes: As we may see, by taking look at the processes status table and filtering sleep, The sleep 10000 is currently in the (T) Stopped states, in which the process has successfully been stopped by the SIGSTOP.

2. Send a SIGCONT signal to the stopped sleep process. Take a screenshot that shows that this process is no longer in the stopped state.

```
ramzy@ramzy-VirtualBox:~$ kill -SIGCONT 12602
ramzy@ramzy-VirtualBox:~$ jobs
[1]+  Running                  sleep 10000 &
ramzy@ramzy-VirtualBox:~$
ramzy@ramzy-VirtualBox:~$ ps -u | grep sleep
ramzy      12602  0.0  0.0  17028  1044 pts/0    S   21:43   0:00  sleep 10000
ramzy      13370  0.0  0.0  17868  2320 pts/0    S+  22:10   0:00  grep --color
=auto sleep
ramzy@ramzy-VirtualBox:~$
```

Notes: By calling SIGCONT signal using kill command and specifying the PID, the Stopped process of sleep 10000 will continue the process in the background. This shown by the screenshot given above in which the program state is in (S) interruptible sleep state.