Operating Systems

Lab – 10

Objectives:

- Signal handling
- /Proc directory
- Task Scheduling

Linux Environment

Perform all the tasks on your machine and write in your notebook the particular one's.

1. Create a **lab10/** directory on your desktop and perform the following tasks in it.

Signal Handling

Task 01:

a) Ignore the signal no **2, 3** and **15**.
b) Using **trap** command, create a disposition for **SIGQUIT** that echoes "**DEAD!**".
c) Ignore signal number 9. Run sleep command for 50 seconds. Now go onto another terminal and try sending **SIGKILL** to the **sleep** process.

/Proc directory

Task 02:

a) Describe why the **/proc/** directory is also known as a **window** to the running Linux Kernel.
b) Give a brief description of files version, cmdline, uptime, cpuinfo, modules, and devices inside the **/proc/** directory
c) Describe cmdline, environ, limits, stat, status, statm files inside the /proc/[PID] directory.
d) View the contents of **fd**, and **task directories** inside the **/proc/[PID]** directory. Describe their usage on Linux systems.
e) Try to understand and Explain what is the **syscall** file in **/proc/[PID]**

Task Scheduling

Reminding previous concepts would be beneficial (**IO Redirection && BASH Shell**)

Task 03:

a) What do you mean by a **daemon**, give command to **display** daemons running on your system.(use **ps**)
b) Difference between **cron** and **anacron** command.
c) Write a cron entry that will **compile** a C program file placed in your **~/Desktop/lab10/** directory on **every Sunday at 6:30 pm**.
d) Write a cron entry that will execute a command on the **1st of every month at 3:45 pm**.
e) What is the concept of **cron.allow** and **cron.deny** files in **/etc/** directory.
f) Make an entry in your **cron table file** which executes a command **every minute**, which deletes all the files in **~/Desktop/lab10/** directory that starts with an alphabet "**a**" and has an extension of "**.txt**".
g) Write a cron entry that creates a file named **abcd.txt** in my **~/Desktop/lab10/** directory after every **minute**.
h) Write a cron entry that **appends** *''Learning linux is fun with kali '' after* every minute in the file named **linux.txt** in **~/Desktop/lab10/** directory.
i) Provide an example of **cron job** that runs a script every **10 minutes** but only during business hours (**9AM-5PM**)
j) Write a cron entry for time **at 1:25 | 1:50 on the 15th of every month**.
k) write a cron entry for time **at every minute from 10 through 37 past hour 7 on Tuesday in April.**