**Assignment 4:**

# **MTMC-509 Programming Lab-I**

**User and Group & and manage packages & Process Related Commands**

**User and Group Commands**

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| **id** | See details about the active users. |
| **last** | Show the last system logins. |
| **who** | Display who is currently logged into the system with the [who command](https://phoenixnap.com/kb/linux-who-command). |
| **w** | Show which users arelogged in and their activity with the [w command](https://phoenixnap.com/kb/w-command-in-linux). |
| **finger [user\_name]** | Show user information. |
| **sudo useradd [user\_name]** | Create a new user account. |
| **sudo adduser [user\_name]** | Create a new user account through the [adduser command](https://phoenixnap.com/kb/linux-adduser" \t "_blank) interface. |
| **sudo userdel [user\_name]** | Delete a user account. |
| **sudo usermod -aG [group\_name] [user\_name]** | [Modify user information](https://phoenixnap.com/kb/usermod-linux) ([add a user to a group](https://phoenixnap.com/kb/add-user-to-linux-group)). |
| **passwd** **sudo passwd [user\_name]** | Change the current user's password or another user's password with the [passwd command](https://phoenixnap.com/kb/passwd-command-in-linux). |
| **sudo groupadd [group\_name]** | Add a new group. |
| **sudo groupdel [group\_name]** | Delete a group. |
| **sudo groupmod -n [new\_name] [old\_name]** | Modify a user group (change group name). |
| **sudo [command]** | Temporarily elevate user privileges to superuser or root using the [sudo command](https://phoenixnap.com/kb/linux-sudo-command" \t "_blank). |
| **su - [user\_name]** | [Switch the user account](https://phoenixnap.com/kb/su-command-linux-examples) or become a superuser. |
| **chgrp [group\_name] [file/directory]** | [Change file or directory group](https://phoenixnap.com/kb/chgrp-command). |

**manage packages**

| **Command** | **Description** |
| --- | --- |
| **sudo apt-get install [package\_name]** | Install an APT package using the apt-get package utility. |
| **sudo apt install [package\_name]** | Install an APT package using a newer APT package manager. |
| **apt search [keyword]** | Search for a package in the APT repositories. |
| **apt list** | List packages installed with APT. |
| **apt show [package\_name]** | Show information about a package. |
| **sudo dpkg -i [package\_name.deb]** | Install a *.deb* package with the Debian package manager (dpkg command). |
| **sudo dpkg -l** | List packages installed with dpkg. |
| **tar zxvf [file\_name.tar.gz]** **cd [extracted\_directory]** **./configure make** **make install** | Install software from source code. |

**Process Related Commands**

| **Command** | **Description** |
| --- | --- |
| **ps** | List active processes. |
| **pstree** | Show processes in a tree-like diagram. |
| **pmap** | Display a memory usage map of processes. |
| **top** | See all running processes. |
| **htop** | Interactive and colorful process viewer. |
| **kill [process\_id]** | Terminate a Linux process under a given ID. |
| **pkill [process\_name]** | Terminate a process under a specific name. |
| **killall [label]** | Terminate all processes with a given label. |
| **prgrep [keyword]** | List processes based on the provided keyword. |
| **pidof [process\_name]** | Show the PID of a process. |
| **bg** | List and resume stopped jobs in the background. |
| **fg** | Bring the most recently suspended job to the foreground. |
| **fg [job]** | Bring a particular job to the foreground. |
| **lsof** | List files opened by running processes with lsof command. |
| **trap "[commands]" [signal]** | Catch a system error signal in a shell script. Executes provided commands when the signal is caught. |
| **wait** | Pause the terminal or a Bash script until a running process is completed. |
| **nohup [command] &** | Run a Linux process in the background. |