**2. Linux Basic Training**

1. Explain the usage of following commands

|  |  |
| --- | --- |
| ls | **shows** lists files and directories within a system |
| ls -a | shows hidden files in addition to the visible ones |
| mkdir | to create one or multiple directories at once and set permissions for each of them |
| cd <path> | switch to a completely new directory |
| cd | (cd is used to navigate through the Linux files and directories)  moves to your previous directory |
| cd .. | moves one directory up |
| pwd | to find the path of your current working directory |
| lsof | provides a list of files that are opened |

1. List the command we used to perform these actions.

* copy/move/remove file.

**cp filename path**

**mv filename path**

**rm filename**

* copy/move/remove directory.

**cp -R source dest**

**mv source dest**

**rmdir or rm -d command to remove empty directories**

**rm -r command to remove non-empty directories**

1. What happens when following commands are executed on a file

|  |  |
| --- | --- |
| cat file | creates a new file. |
| less file | read contents of a text file at time |
| head file | allows you to view the first ten lines of a text |
| tail file | displays the last ten lines of a file |
| tail -f file | displays last number of lines |
| grep <keyword> file | to find a word by searching through all the texts in a specific file |
| locate | to find a file in the database system |

1. How to kill a process running with id 25500?

(**ps** command provides a complete listing of running processes)

**pidof appname**

**kill -9 25500**

1. How to find the process running on port 8080?

**lsof -i :8080**

1. How can we set environment variables?

(**The environment variables are dynamic values that are stored within a system and used by applications launched in shells or sub-shells. These variables have a name and their respected value. The environment variable customizes the system performance and the behavior of an application**)

**export new\_variable = VALUE (assigning variable name with a value)**

1. How can we get the value of an environment variable?

**echo $new\_variable**

1. What is the .bashrc file?

The **.bashrc file is a script file that’s executed when a user logs in. The file itself contains a series of configurations for the terminal session. This includes setting up or enabling: coloring, completion, shell history, command aliases, and more**

**It is a**[**hidden file**](https://www.linuxfordevices.com/tutorials/linux/hidden-files-in-linux)**and simple**[**ls command**](https://www.digitalocean.com/community/tutorials/ls-command-in-linux-unix)**won’t show the file**

1. How to check space left in the file system?

**Using df command**

(The df command stands for disk free, and it shows you the amount of space taken up by different drives. By default, df displays values in **1-kilobyte blocks**)

1. Explain following commands

|  |  |
| --- | --- |
| chmod | to change access permissions  (chmod changes the permissions of each given file according to mode, where mode describes the permissions to modify. Mode can be specified with octal numbers or with letters. ) |
| chown | changes ownership of files and directories in a filesystem |
| who | to print information about users who are currently logged in |
| which | is used to locate the executable file associated with the given command by searching it in the path environment variable. It has 3 return status as follows |

1. Explain the output of locate "\*.java" | grep Controller

**list of file names ending with ".java" that contain the word "Controller" in their name**

1. Create a shell script which prints “hello world” and execute

**echo “Hello World”**

1. What is grep command?

**lets you find a word by searching through all the texts in a specific file**

1. How can you test whether you can connect to an ip address?

**ping $ipaddress**

1. What is wget command?

**retrieves files using HTTP, HTTPS, and FTP protocols**

(command line lets you download files from the internet. It works in the background without hindering other running processes)

1. Rename the answer sheet as “linux-<your-name>-<date>” and submit