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| Program- BTech-3rd Semester | Type- Sp. Core-I |
| Course Code- CSET213 | Course Name-Linux and Shell Programming |
| Year- 2024 | Semester- Odd |
| Date- 12/08/2024 | Batch- BXX-BXX (Cyber Security)   |  | | --- | |  | |

**Lab Assignment 3**

**Objective**: To learn Linux Commands

**Outcomes:** Will be able to print user/system information, file information, string processing, compression and archiving, and network information through command line.

**Hands-on Learnings:**

1. Learn following commands to display the user/system information:
   1. whoami
   2. id
   3. uname
   4. ps
   5. top
   6. df
   7. du
   8. free
   9. kill
   10. bg
   11. fg
   12. uptime
   13. w
   14. finger
   15. which
   16. whereis
2. Learn following commands to display file contents and process strings:
   1. cat
   2. more
   3. head
   4. tail
   5. echo
   6. chmod
   7. grep
3. Learn following commands to compress and archive the files and directories:
   1. tar
   2. zip
   3. unzip
4. Learn following commands to display your network information:
   1. hostname
   2. ping
   3. ifconfig
   4. curl
   5. wget
   6. dig
   7. traceroute

**Problems to be solved by students:**

1. Execute commands from your terminal to display the running processes on your machine.
2. Execute commands from your terminal to display the disk status of your machine.
3. Execute commands from your terminal to display the CPU, OS kernel, and user information of your machine.
4. Execute commands from your terminal to display the switch/router/www.bennett.edu.in reachability from your machine.
5. Execute commands from your terminal to display the complete information of available network interfaces of your machine.
6. Execute commands from your terminal to download a file from a given URL
7. Execute commands from your terminal to download complete webpage in HTML.
8. Execute commands from your terminal to check permission on a given file.
9. Execute commands from your terminal to display the content of a file page wise.
10. A file contains 100 lines of text. Execute commands from your terminal to display first 10 lines and last 10 lines.
11. Execute commands from your terminal to create an archival file.
12. Execute commands from your terminal to extract a pattern from a file.

**Give the command for the following:**

1. Partitioning disk
2. Enabling the swap area
3. Creation of a filesystem
4. Displaying the system space
5. Forcefully kill the process
6. Name 1000 directories in one go with a pattern like Photo-1- OfMyBirthday, Photo-2-OfMyBirthday, Photo-3- OfMyBirthday…. Photo-4-OfMyBirthday.

**Submission Instructions:**

1. Submission requires the screen shots of all the incurred steps to execute a shell script or a video showing the whole process.
2. All these files are in single zip folder.
3. Use the naming convention: Prog\_CourseCode\_RollNo\_LabNo.docx
4. Submission is through LMS only