Assignments

CSE 300 PR1: Linux Laboratory

Experiment-1

1.To Install Ubuntu Linux and LINUX Commands(File Handling utilities, Text processing utilities, Network utilities, Disk utilities, Backup utilities and Filters).

2. Write a Shell Script that accepts a file name, starting and ending line numbers as arguments and displays all lines between the given line numbers.

3. Write a shell script that deletes all lines containing the specified word in one or more files supplied as arguments to it.

Experiment-2

4. Write a shell script that displays a list of all files in the current directory to which the user has read, write and execute permissions.15. Write a program using get and post method in Servlet.

5. Write a shell script that receives any number of file names as arguments checks if every argument supplied is a file or directory and reports accordingly. Whenever the arguments a file it reports no of lines present in it

6. Write a shell script that accepts a list of file names as its arguments, counts and reports the occurrence of each word that is present in the first argument file on other argument files.

Experiment-3

7. Write a shell script to list all of the directory files in a directory.

8. Write a shell script to find factorial of a given number.

9. Write an awk script to count number of lines in a file that does not contain vowels.

Experiment-4

10. Write an awk script to find the no of characters, words and lines in a file

11. Implement in c language the following UNIX commands using system calls

a) Cat b) ls c) mv 39-42

12. Write a C program that takes one or more file/directory names as command line input

and reports following information

a) File Type b) Number Of Links

c) Time of last Access d) Read, write and execute permissions

Experiment-5

13. Write a C program to list every file in directory, its anode number and file name

14. Write a C program to create child process and allow parent process to display

"Parent "and the child to display "child" on the screen

15. Write a C program that illustrate communication between two unrelated processes

using named pipes

List of Practical(s)

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Mandsaur University, Mandsaur
Department of Computer Science & Engineering

QUESTION BANK

Subject with Code : CSE 300 PR1: Linux Laboratory

Year & Sem: YEAR – 3rd & V- SEM

Course & Branch: B.Tech – CSE,AI,BCT

UNIT –I

1. (a) Describe in detail about the structure of LINUX. 5M

   (b) What are the features of Linux operating system 5M

2. What information is presented when the following commands are entered? 5*2=10M

   (a) date (b) who (c) passwd (d) bc (e) script

3. (a) Define vi Editor and explain its modes. 5M

   (b) Brief about the commands used in the vi Editor. 5M

4. What are the file types available in Linux? Discuss file operators with suitable examples. 10M

5. (a) Explain the security levels provided in Linux environment. How to change permissions of a file? 6M

   (b) Brief umask command. 4M

6. What is user and group in Linux? Explain the related commands for changing ownership and group. 10M

7. Write about the operations unique to directories alone. 10M

8. Write about the operations that can be performed on both directories and file. 10M

9. What is meant by path and pathname in Linux? Explain them in detail. 10M

10. a) Distinguish between time – sharing and client/server environment. 2M

    b) Name the two categories of regular files. Does Linux recognize the difference between these two categories? Explain your answer. 2M

    c) Write syntax for changing ownership and group name on a given file/s 2M

    d) Discuss about various modes of vi editor. 2M

    e) Write the command for the following 2M

    To display time in format hour:minute:second

UNIT 2

1. a)In how many ways a command can be executed? 6M

   b)write a shell script to count number of lines present in a text file 4M

2. What is redirection? Explain it in detail. 10M

3. (a) How quotes are used in Linux, explain with example. 5M

   (b) Brief about command line editing. 5M

4. Explain in detail foreground and background jobs. Give example. 10M

5. (a) Explain concatenate command with its options. 5M

   (b) Explain sort command with its options. 5M

6. What command is used for translating characters? Also explain its options with examples. 10M

7. What is a filter?Illustrate all filters with appropriate examples 10M

8. What information is presented when the following commands are entered? 5*2=10M

   (a) cmp (b) diff (c) comm (d) cut (e) paste

9. Write a shell program for counting characters, words and line? 10M

10. Explain (a) Aliases (b) Linux session 5+5=10M

10. a) Define pipes. 2M

    b) Explain tee command. 2M

    c) Compare and contrast the **cmp** command with the **comm** Command 2M

    d) If your login shell is korn shell, can you create another korn shell as the child shell? What file descriptor designates the standard input stream, standard output stream and the standard error stream? 2M

    e) What does "tail" command do. 2M

UNIT 3

1. Differentiate atoms and operators in detail 12M
2. a)What is grep ?How it is useful ? 2M
   b) Illustrate grep command functionality with following options (-c,-i,-n,-s,-v,-x,-f) 10M
3. Describe "Dot,class,anchor,back reference and single character" atoms 10M
4. Differentiate among grep,egrep and fgrep 12M
5. a)How does an "eval" command works 4M
   b) Define Environmental variable?Explain about Environmental variables used in korn shell 8M
6. How do you use a variable in korn shell?Describe different types of variables used in korn shell 10M
7. a)How do you check exit status of a command 2M
   b) Illustrate decision making statements used in korn shell 10M
8. What is an expression?Describe about different expression forms used in korn shell 10M
9. a)How do for-in and until loops work in korn shell? 4M
   b) What are the special parameters and variables used in kornshell 8M
10. What would be the effect of the following commands: 5*2=10M

(a) grep"^[A - Z]" file1

(b) egrep "LINUX|Linux|linux" file1

(c) grep "Linux$" file1

(d) grep "^Linux$" file1

(e) grep ^…$ file1

UNIT 4

1. Narrate how variable evaluation and substitution is done in korn shell with examples 12M
2. a)What is here document operator?write a shell script using it 6M
   b) Define function.Describe How do you use functions in korn shell 6M
3. Narrate all built-in commands in korn shell With the help of shell prompt 12M
4. Write a shell script which simulate calculator 12M
5. a)What are the system variables used by "awk" 6M
   b) Describe 3 data processing concepts used in "awk" 6M
6. a)Illustrate "awk" process flow 5M
   b)calculate student average using "awk" script 7M
7. Define Associative array?Explain it with example "awk" scripts. 12M
8. Write about following string handling functions
   Length,index,substring,split,substitution,match and toupper,tolower 8M
9. Write an awk script to merge contents in two files. 4M
10. Narrate all "awk" statements in detail With example scripts . 12M

UNIT-5

1. a)Write awk script to display only names and phone numbers from given file.	6M
b) Write awk script to count number of lines and words in a file.	6M
2. How do you find a line that matches a regular expression using awk	4M
3. What is remote access?Describe about few communication utilities.	10M
4. a)Explain how talk and write commands work?	6M
b)How does “telnet” command work?explain it with example .	6M
5.Describe in detail about domain levels used with “mail” utility.	8M
6.Narrate about commands used to send a mail in Linux environment.	12M
7.Write in detail about telnet interface commands.	7M
8. Narrate about commands used to read a mail in Linux environment.	12M
9. What is ftp? Illustrate how files can be transferred between two systems with Appropriate commands.	12M
10.Illustrate features of awk in detail with appropriate examples	12M