# Hands-on List(Shell Scripting)

1. Write a shell script to count the number of block device files in /dev directory.

2. Write a shell program that checks the number of command line arguments and echoes an error message if there are not exactly three arguments or echoes the arguments themselves if there are three.

3. Write a shell program called new_files that will accept a variable number of command line arguments. The shell program will create a new file associated with each command line argument and echo a message that notifies the user as each file is created.

4. Create a directory called .recyclebin in your home directory. Write a shell program called myrm that will move all of the files you delete into the .recyclebin directory, your wastebasket. This is a useful tool which will allow restoration of files after they have been removed. Remember, the UNIX system has no undelete capability.

5. Write a script that uses find to look for a file and echo a suitable message if the file is not found. You must not store the output of the find to a file.

6. Write a script which will give 4 choices to the user 1. ls 2. pwd 3. who 4. exit and execute the command as per the users choice.

7. Write an interactive file-handling shell program that offers the user choice of copying, removing, rename. Once the user has made a choice, the program ask user for the necessary information, such as the file name, new name.

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8. Write shell script that takes a login name as command – line argument and reports when that person logged in.

9. Write a shell script that accepts a file name starting and ending line numbers as arguments and displays all the lines between the given line numbers.

10. Write a script to backup a given directory to a given file name in your home directory. Both, the directory name and the backup file has to be passed as command line input. Design the script with suitable exception handling.

11. Write a script to check how much space is used by each directory of a given file system. The name of the file system has to be provided from the command line parameter.

12. Write a script in /root/myscript.sh according to the following criteria:

    a) If you search for the IIT the output is NIT

    b) If you search for NIT the output is IIT

    c) If you search any other keyword or not give any input, the output is STDERR should be displayed.

13. Write a shell script to print a multiplication table.

14. Write a shell script to print, “Good Morning/Afternoon/Evening based on the current system time.

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15. SED - Write a shell script to perform the following (input file “example” will be given).
    1. For a given file, find all the lines containing our search pattern.
    2. List the lines not containing the search string
    3. Matching lines starting with a given pattern and ending in a second pattern
    4. Print a file starting from a certain line until to the end of file.
    5. Search a given pattern in a file and replace with a new pattern and display the file.
    6. Insert a given string at the beginning of each line of the file.
    7. Insert a given string at the end of each line of the file

16. AWK – Write a Shell script to (The input file “employee.txt” will be given)
    1. Display a given file.
    2. Print the lines which match with a given pattern.
    3. Print only a specific field in the file.
    4. Format a given file with Name, Designation, Department and Salary headings and at the end of a file print Report Generated.
    5. Find the employees, who has id > 200
    6. Find the list of employees in a Technology Department.
    7. Print the number of employees in Technology Department.