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USP
(Cie-2)
20CS5RUSP

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PART : A

1.

Hard Link.	Soft Link.
• Does not create a new inode.	It creates a new inode.
• It cant link files across different file system	It can link files across different file systems.
• It increases the hard link count of the file	Does not change the hard link count of the file
• It can't link directory files, unless it is done by superuser.	It can link directory files.
• Eg: ln /usr/cse/abc /usr/cse/xyz	Eg: ln -s /usr/cse/abc /usr/cse/xyz .

Syntax :

$[ln [original filename] [link name]]$

Syntax

$[ln -s [original filename] [link name]]$

(i a)

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PART : B

2b).(i) ~~ls -l | grep `^d`~~

(ii) 2b)(i) first go to home directory.

cd~ in terminal

To list all directories use :

```
ls  - l  |  grep `^d`
```
→ displays all the directories present

list attributes
of all files and i/p to grep cmp.

(or)
```
find $HOME  -type  d  -print
```

(ii). We cut filters to get field of empid and we
use pipe operator to send this an i/p to grep.

```
cut -d "|" -f 1 emp.lst | grep `^2`
                    >> cutlist.lst
```

✗ Considering emp.lst as

Empid | Name | Designation

we can also use :

```
grep "^2" Emp.lst | cut -d "|" -f 1 | tee cutlist.lst.
```

(1b)

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(ii) using chmod cmd.

    read permission octal = 4
      write permission octal = 2
    execute permission octal = 1

    → To enable give only read & write permission
        → 4+2 = 6.

> $ chmod 666 reverse.sh

(iv)

> trap `echo "Handling ctrl+d and Ctrl+z"` 3 20
>
>   quit   Stop.

(v) ls -l -s | sort -k 5 -n   //ascending
              ↓
        file size in 5th field.

or.

ls -l -s | sort -r -k 5 -n   //descending.

in home directory:

    ls -l -s /home/ | sort -k 5 -n

or/
    ls -l -s /home/ | sort -r -k 5 -n

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2c) (i) `tr -cd '11' < Emp.lst`
→ to delete all characters except `1`

(ii) `cut -d "1" -f 3 emp.lst | grep -c "director"`

no. of times "director" pattern occured is displayed.

(iii). `tail -8 emp.lst >> Ise.txt`

→ fetches last 8 lines and appends to Ise.txt.

2a) List of actions to be performed :

→ list all the files using find command and identify the ones with last modification date of that day with /usr/temp directory.

→ loop through the file and for each file create a link file, a symbolic link file in the directory /home/apple

→ Now user will be able to access these from /home/apple.

(2b)

PART-C

3a).
```bash
#!/bin/bash
echo "Enter a string"
read str
len = $(expr length $str)
count = 0
while [ $len -gt 0 ]
do
    ch = $(echo $str | cut -c $len)
    case $ch in
        [AEIOUaeiou])    {
        count = $(( $count +1))
        echo $ch
        ;;
    esac
    len = $(( $len -1))
done
echo $count
```

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4b)
```
$ if [ $# -eq 0 ]
    then
    echo "Argument not found"
    exit
    else
        for x in "$@"
        do
            y = `echo $*|cut -d " "-f $x`
        temp =
```

4a)
```
S=0                 echo "Enter a string"
reverse=" "         read str
temp =              len = `echo $str | wc -c`
                    len = `expr $len -1`
                    i=1
                    j=`expr $len/2`
                    while [ $i -le $j ]
                    do
                        k = `echo $str |cut -c $i`
                        l = `echo $str |cut -c $len`
```

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```
if [ $k != $i ]
then
echo "String is not palindrome"
exit
fi
i=`expr $i+1`
len=`expr $len -1`
done
echo "String is palindrome"
```