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TOPIC: OS EXPERIMENT 2 – SHELL SCRIPTING

A.] Shell script program to copy contents of one file to another.

CODE:

```
echo -n "Enter source file name : "  
read src  
echo -n "Enter target file name : "  
read targ  
  
if [ ! -f $src ]  
then  
    echo "File $src does not exist"  
    exit 1  
elif [ -f $targ ]  
then  
    echo "File $targ exist, cannot overwrite"  
    exit 2  
fi  
  
cp $src $targ  
  
status=$?  
  
if [ $status -eq 0 ]  
then  
    echo 'File copied successfully'  
else  
    echo 'Problem copying file'  
fi
```

```
#!/bin/bash
echo -n "Enter source file name : "
read src
echo -n "Enter target file name : "
read targ

if [ ! -f $src ]
then
    echo "File $src does not exist"
    exit 1
elif [ -f $targ ]
then
    echo "File $targ exist, cannot overwrite"
    exit 2
fi

cp $src $targ

status=$?

if [ $status -eq 0 ]
then
    echo 'File copied successfully'
else
    echo 'Problem copying file'
fi
```

OUTPUT:

```
gini@gini:~/Practicals$ ./exp2a.sh
Enter source file name : file1.txt
Enter target file name : file2.txt
File file2.txt exist, cannot overwrite
gini@gini:~/Practicals$ ./exp2a.sh
Enter source file name : file1.txt
Enter target file name : file3.txt
File copied successfully
gini@gini:~/Practicals$ cat file3.txt
I am Gini
Welcome to the world of computers
Happy Coding :)
gini@gini:~/Practicals$ cat file1.txt
I am Gini
Welcome to the world of computers
Happy Coding :)
```

B.] Shell script to create directory, write contents to it and Copy to a suitable location in your home directory.

CODE:

```
#!/bin/bash

echo "Enter the name of directory you want to create"
read dir

if [ -d $dir ]
then
    echo "Directory already exists"
    exit 1
else
    mkdir $dir
fi

cd $dir
sou=$(pwd)
touch test1.txt
touch test2.txt

echo "Enter Dest"
read des

cp -R $sou $des
```

```
#!/bin/bash

echo "Enter the name of directory you want to create"
read dir

if [ -d $dir ]
then
echo "Directory already exists"
exit 1
else
mkdir $dir
fi

cd $dir
sou=$(pwd)
touch test1.txt
touch test2.txt

echo "Enter Dest"
read des

cp -R $sou $des
```

OUTPUT:

```
gini@gini:~/Practicals$ ./exp2b.sh
Enter the name of directory you want to create
REAL
Enter Dest
/home/gini
gini@gini:~/Practicals$ cd ..
gini@gini:~$ ls
Desktop    Downloads  nano.save  Practicals  REAL        Videos
Documents  Music      Pictures   Public      Templates
gini@gini:~$ cd REAL
gini@gini:~/REAL$ ls
test1.txt  test2.txt
gini@gini:~/REAL$
```

C.) Use a pipeline and command substitution to set the length of a line in a file to a variable.

CODE:

```
#!/bin/bash
```

```
echo "Enter File Name"
read file
```

```
if [ -f $file ]
```

```
then
```

```
    echo "File Found with a Name $file\n"
```

```
    count=0
```

```
    val=0
```

```
    while read line
```

```
    do
```

```
        val=$("$line" | wc -c)
```

```
        count=$((count+1))
```

```
    done < $file
```

```
    echo "Total Line in File : $count"
```

```
else
```

```
    echo "File Not Found check other file using running script"
```

```
fi
```

```
#!/bin/bash

echo "Enter File Name"
read file

if [ -f $file ]
then
echo "File Found with a Name $file\n"
count=0
val=0
while read line
do
val=$(( "$line" | wc -c ))
count=$((count+1))
done < $file
echo "Total Line in File : $count"
else
echo "File Not Found check other file using running script"
fi
```

OUTPUT:

```
gini@gini:~/Practicals$ ./exp2c.sh
Enter File Name
file1.txt
File Found with a Name file1.txt\n
./exp2c.sh: line 13: I am Gini: command not found
./exp2c.sh: line 13: Welcome to the world of computers: command not found
./exp2c.sh: line 13: Happy Coding :): command not found
./exp2c.sh: line 13: I am Gini: command not found
./exp2c.sh: line 13: Welcome to the world of computer: command not found
./exp2c.sh: line 13: Happy Coding :): command not found
Total Line in File : 6
gini@gini:~/Practicals$
```

D.) Write a Shell scripts to back up your files and directories.

CODE:

```
#!/bin/bash

echo "Where are the files to be backupd"
read backup_files

echo "Where do you want to backup"
read dest

day=$(date +%A)
hostname=$(hostname -s)
archive_file="$hostname-$day.tgz"

tar czf $dest/$archive_file $backup_files

echo "Backup finished"

ls -lh $dest
```



```
#!/bin/bash

echo "Where are the files to be backuped"
read backup_files

echo "Where do you want to backup"
read dest

day=$(date +%A)
hostname=$(hostname -s)
archive_file="$hostname-$day.tgz"

tar czf $dest/$archive_file $backup_files

echo "Backup finished"

ls -lh $dest
```

OUTPUT:

```
gini@gini:~/Practicals$ ./exp2d.sh
Where are the files to be backuped
/home/gini/REAL
Where do you want to backup
/home/gini
tar: Removing leading `/' from member names
Backup finished
total 48K
drwxr-xr-x 2 gini gini 4.0K Mar 30 22:53 Desktop
drwxr-xr-x 2 gini gini 4.0K Mar 30 22:53 Documents
drwxr-xr-x 2 gini gini 4.0K Mar 30 22:53 Downloads
-rw-rw-r-- 1 gini gini 167 Mar 31 00:48 gini-Wednesday.tgz
drwxr-xr-x 2 gini gini 4.0K Mar 30 22:53 Music
-rw----- 1 gini gini 29 Mar 30 23:21 nano.save
drwxr-xr-x 2 gini gini 4.0K Mar 30 22:53 Pictures
drwxrwxr-x 3 gini gini 4.0K Mar 31 00:47 Practicals
drwxr-xr-x 2 gini gini 4.0K Mar 30 22:53 Public
drwxrwxr-x 2 gini gini 4.0K Mar 31 00:33 REAL
drwxr-xr-x 2 gini gini 4.0K Mar 30 22:53 Templates
drwxr-xr-x 2 gini gini 4.0K Mar 30 22:53 Videos
gini@gini:~/Practicals$ cd ..
gini@gini:~$ ls
Desktop      Downloads      Music          Pictures      Public  Templates
Documents    gini-Wednesday.tgz  nano.save     Practicals    REAL    Videos
gini@gini:~$
```

E.] shell scripts to remove duplicate lines from file.

CODE:

```
#!/bin/bash
```

```
echo "Enter the file name : "  
read file
```

```
if [ -f $file ]  
then  
    sort $file | uniq > output.txt  
    echo "Success"  
else  
    echo "File Not Found"  
fi
```

```
#!/bin/bash

echo "Enter the file name : "
read file

if [ -f $file ]
then
sort $file | uniq > output.txt
echo "Success"
else
echo "File Not Found"
fi
```

OUTPUT:

```
gini@gini:~/Practicals$ ./exp2e.sh
Enter the file name :
file1.txt
Success
gini@gini:~/Practicals$ cat file1.txt
I am Gini
Welcome to the world of computers
Happy Coding :)
I am Gini
Welcome to the world of computers
Happy Coding :)
gini@gini:~/Practicals$ cat output.txt
Happy Coding :)
I am Gini
Welcome to the world of computers
gini@gini:~/Practicals$
```