EXPERIMENT 3

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ROLL NO.: 2021A1R156

SUBJECT: OPERATING SYSTEM

SEMESTER: 3rd

COURSE CODE: COM-312

CO-ORDINATER:

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Experiment3:

a) Write a shell script that takes a command line argument and reports on whether it is a directory or a file.

if condition: the if…else…fi statement is the one level advance form of control statement that allows shell to make decision out of several conditions.

Syntax: if [exp1]
then
statement(s) to be executed of exp1 is true
elif [exp2]
then
statement(s) to be executed if exp2 is true
elif [exp3]
then
statement(s) to be executed if exp3 is true
……
else
statement(s) to be executed of none of the above get true
fi

Test: Checks file types and compares values.

Syntax: test EXPRESION1 [Expresion2]

-f -> check if file or not
-d -> check if directory or not

OUTPUT:

```
  GNU nano 6.2
echo "enter the name"
read a
if test -f $a
then echo "it is a file"
elif test -d $a
then echo "it is a directory"
fi
```

```
sudanshi@sudanshi:~/Desktop$ nano exp1.sh
sudanshi@sudanshi:~/Desktop$ chmod +x exp1.sh
sudanshi@sudanshi:~/Desktop$ ./exp1.sh
enter the name
miet
it is a file
sudanshi@sudanshi:~/Desktop$
```

b) Write a shell script that takes file name as arguments and convert all of them to uppercase.

Tr command: 'tr' translate characters. Syntax of tr command is

Syntax: tr [option] [SET1] [SET2]

if both the SET1 and SET2 are specified and "-d" option is not specified then tr command will replace each character in SET1 with each character in same position in SET2. We use lower case in SET1 and upper in SET2.

OUTPUT:

- **DIGIT:**

```
1 echo "enter the name"
2 read a
3 if [ ! -f $a ]
4 then echo "not exist"
5 fi
6 tr -cd [:digit:] <$a
```

```
sudanshi@sudanshi:~/Desktop$ gedit sehgal.sh
sudanshi@sudanshi:~/Desktop$ cat > sudanshi
my house no is 140
my phone no is 9876543210
my roll no is 156
^C
sudanshi@sudanshi:~/Desktop$ chmod +x sehgal.sh
sudanshi@sudanshi:~/Desktop$ ./sehgal.sh
enter the name
sudanshi
1409876543210156sudanshi@sudanshi:~/Desktop$
```

- **UPPER TO LOWER CASE:**

```
1 echo -n "enter file name"
2 read filename
3 if [ ! -f $filename ]
4 then
5 echo "Filename $filename does not exist"
6 exit 1
7 fi
8 tr '[a-z]' '[A-Z]' <$filename
9
```

```
sudanshi@sudanshi:~/Desktop$ gedit exp2.sh
sudanshi@sudanshi:~/Desktop$ cat > miet
my name is sudanshi sehgal
currently studying computer science engineering
now in 3rd sem
^C
sudanshi@sudanshi:~/Desktop$ chmod +x exp2.sh
sudanshi@sudanshi:~/Desktop$ ./exp2.sh
enter file name miet
MY NAME IS SUDANSHI SEHGAL
CURRENTLY STUDYING COMPUTER SCIENCE ENGINEERING
NOW IN 3RD SEM
sudanshi@sudanshi:~/Desktop$
```

- **SPACE:**

```
1 echo "enter the name"
2 read r
3 if [ ! -f $a ]
4 then echo "not exist"
5 fi
6 tr [:space:] /t <$r
```

```
sudanshi@sudanshi:~/Desktop$ gedit cse.sh
sudanshi@sudanshi:~/Desktop$ cat > miet
my name is sudanshi sehgal
i am studying computer science engineering
now in 3rd sem
^C
sudanshi@sudanshi:~/Desktop$ chmod +x cse.sh
sudanshi@sudanshi:~/Desktop$ ./cse.sh
enter the name
miet
mytnametistsudanshitsehgaltitamtstudyingtcomputertsciencetengineeringtnowtint3rd
tsemtsudanshi@sudanshi:~/Desktop$
```