

## Basic Shell Script Programs with Outputs

### 1. Change file names to lowercase

```
#!/bin/sh

for file in "$@"
do

    lower=$(echo "$file" | tr 'A-Z' 'a-z')

    mv "$file" "$lower"

done
```

*Sample Output:*

Input: FILE1.txt FILE2.TXT

Output: file1.txt file2.txt

### 2. Translate all characters to lowercase in a text file

```
#!/bin/sh

if [ -f "$1" ]; then

    cat "$1" | tr 'A-Z' 'a-z'

else

    echo "File not found"

fi
```

*Sample Output:*

*Input: Text file with content 'HELLO WORLD'*

*Output: 'hello world'*

### 3. Combine three text files and display word count

```
#!/bin/sh

cat "$1" "$2" "$3" > combined.txt
```

*Sample Output:*

wc -w combined.txt

*Sample Output:*

*Input: file1.txt, file2.txt, file3.txt*

*Output: 150 words*

#### **4. Separate even and odd-numbered lines into different files**

```
#!/bin/sh
```

```
awk 'NR % 2 == 0' "$1" > even_file.txt
```

```
awk 'NR % 2 == 1' "$1" > odd_file.txt
```

*Sample Output:*

*Input: file.txt*

*Output: even\_file.txt with even lines, odd\_file.txt with odd lines*

#### **5. Delete all even-numbered lines from a text file**

```
#!/bin/sh
```

```
awk 'NR % 2 == 1' "$1" > temp.txt
```

```
mv temp.txt "$1"
```

*Sample Output:*

*Input: file.txt*

*Output: file.txt with even lines removed*

#### **6. Output username, date, logged-in users, with asterisks**

```
#!/bin/sh
```

```
echo "Username: $(whoami)"
```

```
echo "*****"
```

```
echo "Time and Date: $(date)"
```

```
echo "*****"
```

```
echo "Users Logged In:"
```

```
who
```

```
echo "*****"
```

*Sample Output:*

*Username: user*

\*\*\*\*\*

*Time and Date: Tue Oct 09 2024 10:00:00*

\*\*\*\*\*

*Users Logged In:*

*user pts/1 2024-10-09 09:50*

\*\*\*\*\*

## **7. Count the number of files in each subdirectory**

```
#!/bin/sh
```

```
for dir in */
```

```
do
```

```
    echo "$dir: $(ls -l "$dir" | grep -v '^d' | wc -l) files"
```

```
done
```

*Sample Output:*

*dir1/: 5 files*

*dir2/: 10 files*