Given a string 'operating system'
string="Operating system"

Find the length of the string
echo ${#string}

Find the location of the character 't'
expr index "operating system" "t"

Add a character 's' at the end
echo $string"s"

Write a shell script to print the following pattern:
```
     1
    2 2
   3 3 3
  4 4 4 4
 5 5 5 5 5
6 6 6 6 6 6
```

```
#!/bin/sh
for i in `seq 1 6`
do
        l=$((6-i))
        for k in `seq 1 $l`
        do
                printf " "
        done
        for j in `seq 1 $i`
        do
                printf $i" "
        done
        echo ""
done
```

Consider a file consisting of the foll. structure
cat file1

Find the names of those who work in the same deparment
echo "Comp employees:"
grep "Comp" file1 | awk '{print $1}'
echo "Mech employees:"
grep "Mech" file1 | awk '{print $1}'
echo "Electronics employees:"
grep "Electronics" file1 | awk '{print $1}'

Put all the names who have unique designation in different files
list=`(cat file1 | awk '{print $1}')`
for x in $list
do
        y=`grep $x file1 | awk '{print $3}'`
        echo $x >> $y
done

Add a char '|' before designation
cat file1 | sed 's/\t\t/\t\t|/'