lab 3: Fileman

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CS 340-01

# Code

#!/bin/bash

###########

opt=$1

case "$opt" in

-a)

ls -a | sort

;;

-h)

ls -ad .\*

;;

-hs)

ls -adS .\*

;;

-o)

ls -d \*/

;;

-os)

du -m --max-depth 1 | sort -rn

;;

-f)

getfacl $2

;;

-m)

mv $2 $3

;;

-d)

rm -r $2

;;

-xo)

sed -n 'p;n' $2

;;

-xe)

sed -n 'n;p' $2

;;

-x)

opt=p

sed -n "${2:0:2},${2:3}$opt" < $3

;;

-u)

opt=d

newFile="new$3"

sed -e "${2:0:2},${2:3}$opt" $3 > $newFile

;;

-pn)

cat -n $2

;;

-r)

orString=$2

newString=$3

opt1=s

opt2=g

sed -i "$opt1/$orString/$newString/$opt2" $4

;;

-c)

orChar=$2

newChar=$3

opt1=s

opt2=g

sed -i "$opt1/$orChar/$newChar/$opt2" $4

;;

-v)

ls -l $2

;;

-l)

newFile="numbered$2"

cat -n $2 > $newFile

;;

-z)

tac $2

;;

-b)

ls -lS | head -n 2

;;

-s)

ls -ls | head -n 2

;;

-fa)

ls -lS

;;

-fd)

ls -ls

;;

-q)

line=$2

content=$3

orFile=$4

newFile="replace$4"

opt=s

sed "$line$opt/.\*/$content/" $orFile > $newFile

;;

-mi)

rev $2

;;

-jb)

orFile=$2

text="$3"

row=$4

newFile="before$orFile"

sed "$row i $text" $orFile > $newFile

;;

-ja)

orFile=$2

text="$3"

row=$(( $4 + 1 ))

newFile="after$orFile"

sed "$row i $text" $orFile > $newFile

;;

-rd)

diff -qr $2 $3

;;

-slod)

lsof -u $2 | sort

;;

-rc)

orFile=$2

col1=$3

col2=$4

newFile="colchange$orFile"

awk "{$col1 = $col2; print}" $orFile > $newFile

;;

\*)

echo "Error!! Please check input!"

;;

esac

exit 1

# Program Description

# Main Body

This program first reads in and chooses the option the user wants to run and then runs the commands associated with said option filling in parameters when necessary with information given by user.

# Data Dictionary

| Name | Scope | Description | Associated Options |
| --- | --- | --- | --- |
| $1 | Global | Option |  |
| $2 | Global | Parameter1 |  |
| $3 | Global | Parameter2 |  |
| $4 | Global | Parameter3 |  |
| opt | Global | Option |  |
| opt | Local | option for command | x, u |
| orFile | Local | the original file | q, jb, ja, rc |
| newFile | Local | then new created file | u, l, q, jb, ja, rc |
| orString | Local | the string to be replaced | r |
| newString | Local | the new string | r |
| orChar | Local | the character to be replaced | c |
| newChar | Local | the new character | c |
| opt1 | Local | first option for command | r, c |
| opt2 | Local | second option for command | r, c |
| line | Local | line number | q |
| content | Local | content to be added | q |
| text | Local | text to be added | jb, ja |
| row | Local | row number | jb, ja |
| col1 | Local | column number to be replaced | rc |
| col2 | Local | replacement column | rc |