Sorting program

Vanishree@LAPTOP-9VLT2MT4 MINGW64 ~/Documents/bridgelab/github/batch485 (main)

$ cat bash sort.sh

cat: bash: No such file or directory

for (( i=0; i<10; i++ ))

do

random\_number=$(($(($RANDOM%900))+100))

arr[$i]=$random\_number

done

max\_1=0

max\_2=0

for (( i=0; i<10; i++ ))

do

if [ ${arr[i]} -gt $max\_1 ]

then

max\_2=$max\_1

max\_1=${arr[i]}

elif [ ${arr[i]} -gt $max\_2 -a ${arr[i]} -ne $max\_1 ]

then

max\_2=${arr[i]}

fi

done

min\_1=$max\_2

for (( i=0; i<10; i++ ))

do

if [ ${arr[i]} -lt $min\_1 ]

then

min\_2=$min\_1

min\_1=${arr[i]}

elif [ ${arr[i]} -lt $min\_2 -a ${arr[i]} -ne $min\_1 ]

then

min\_2=${arr[i]}

fi

done

echo $max\_2 " is 2nd largest value"

echo $min\_2 " is 2nd smallest value"

Vanishree@LAPTOP-9VLT2MT4 MINGW64 ~/Documents/bridgelab/github/batch485 (main)

$ bash -x sort.sh

+ (( i=0 ))

+ (( i<10 ))

+ random\_number=727

+ arr[$i]=727

+ (( i++ ))

+ (( i<10 ))

+ random\_number=996

+ arr[$i]=996

+ (( i++ ))

+ (( i<10 ))

+ random\_number=342

+ arr[$i]=342

+ (( i++ ))

+ (( i<10 ))

+ random\_number=542

+ arr[$i]=542

+ (( i++ ))

+ (( i<10 ))

+ random\_number=720

+ arr[$i]=720

+ (( i++ ))

+ (( i<10 ))

+ random\_number=927

+ arr[$i]=927

+ (( i++ ))

+ (( i<10 ))

+ random\_number=315

+ arr[$i]=315

+ (( i++ ))

+ (( i<10 ))

+ random\_number=785

+ arr[$i]=785

+ (( i++ ))

+ (( i<10 ))

+ random\_number=503

+ arr[$i]=503

+ (( i++ ))

+ (( i<10 ))

+ random\_number=563

+ arr[$i]=563

+ (( i++ ))

+ (( i<10 ))

+ max\_1=0

+ max\_2=0

+ (( i=0 ))

+ (( i<10 ))

+ '[' 727 -gt 0 ']'

+ max\_2=0

+ max\_1=727

+ (( i++ ))

+ (( i<10 ))

+ '[' 996 -gt 727 ']'

+ max\_2=727

+ max\_1=996

+ (( i++ ))

+ (( i<10 ))

+ '[' 342 -gt 996 ']'

+ '[' 342 -gt 727 -a 342 -ne 996 ']'

+ (( i++ ))

+ (( i<10 ))

+ '[' 542 -gt 996 ']'

+ '[' 542 -gt 727 -a 542 -ne 996 ']'

+ (( i++ ))

+ (( i<10 ))

+ '[' 720 -gt 996 ']'

+ '[' 720 -gt 727 -a 720 -ne 996 ']'

+ (( i++ ))

+ (( i<10 ))

+ '[' 927 -gt 996 ']'

+ '[' 927 -gt 727 -a 927 -ne 996 ']'

+ max\_2=927

+ (( i++ ))

+ (( i<10 ))

+ '[' 315 -gt 996 ']'

+ '[' 315 -gt 927 -a 315 -ne 996 ']'

+ (( i++ ))

+ (( i<10 ))

+ '[' 785 -gt 996 ']'

+ '[' 785 -gt 927 -a 785 -ne 996 ']'

+ (( i++ ))

+ (( i<10 ))

+ '[' 503 -gt 996 ']'

+ '[' 503 -gt 927 -a 503 -ne 996 ']'

+ (( i++ ))

+ (( i<10 ))

+ '[' 563 -gt 996 ']'

+ '[' 563 -gt 927 -a 563 -ne 996 ']'

+ (( i++ ))

+ (( i<10 ))

+ min\_1=927

+ (( i=0 ))

+ (( i<10 ))

+ '[' 727 -lt 927 ']'

+ min\_2=927

+ min\_1=727

+ (( i++ ))

+ (( i<10 ))

+ '[' 996 -lt 727 ']'

+ '[' 996 -lt 927 -a 996 -ne 727 ']'

+ (( i++ ))

+ (( i<10 ))

+ '[' 342 -lt 727 ']'

+ min\_2=727

+ min\_1=342

+ (( i++ ))

+ (( i<10 ))

+ '[' 542 -lt 342 ']'

+ '[' 542 -lt 727 -a 542 -ne 342 ']'

+ min\_2=542

+ (( i++ ))

+ (( i<10 ))

+ '[' 720 -lt 342 ']'

+ '[' 720 -lt 542 -a 720 -ne 342 ']'

+ (( i++ ))

+ (( i<10 ))

+ '[' 927 -lt 342 ']'

+ '[' 927 -lt 542 -a 927 -ne 342 ']'

+ (( i++ ))

+ (( i<10 ))

+ '[' 315 -lt 342 ']'

+ min\_2=342

+ min\_1=315

+ (( i++ )

+ (( i<10 ))

+ '[' 785 -lt 315 ']'

+ '[' 785 -lt 342 -a 785 -ne 315 ']'

+ (( i++ ))

+ (( i<10 ))

+ '[' 503 -lt 315 ']'

+ '[' 503 -lt 342 -a 503 -ne 315 ']'

+ (( i++ ))

+ (( i<10 ))

+ '[' 563 -lt 315 ']'

+ '[' 563 -lt 342 -a 563 -ne 315 ']'

+ (( i++ ))

+ (( i<10 ))

+ echo 927 ' is 2nd largest value'

927 is 2nd largest value

+ echo 342 ' is 2nd smallest value'

342 is 2nd smallest value

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$ bash sort.sh

sort.sh: line 27: [: -a: integer expression expected

643 is 2nd largest value

177 is 2nd smallest value

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$ bash sort.sh

789 is 2nd largest value

215 is 2nd smallest value

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$ bash sort.sh

871 is 2nd largest value

245 is 2nd smallest value

Tossing a coin program

Vanishree@LAPTOP-9VLT2MT4 MINGW64 ~/Documents/bridgelab

$ nano head.sh

Vanishree@LAPTOP-9VLT2MT4 MINGW64 ~/Documents/bridgelab

$ cat bash head.sh

cat: bash: No such file or directory

i=1

while [ $i -lt 12 ]

do

echo "$i head"

echo "$i tail"

((i++))

done

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$ bash -x head.sh

+ i=1

+ '[' 1 -lt 12 ']'

+ echo '1 head'

1 head

+ echo '1 tail'

1 tail

+ (( i++ ))

+ '[' 2 -lt 12 ']'

+ echo '2 head'

2 head

+ echo '2 tail'

2 tail

+ (( i++ ))

+ '[' 3 -lt 12 ']'

+ echo '3 head'

3 head

+ echo '3 tail'

3 tail

+ (( i++ ))

+ '[' 4 -lt 12 ']'

+ echo '4 head'

4 head

+ echo '4 tail'

4 tail

+ (( i++ ))

+ '[' 5 -lt 12 ']'

+ echo '5 head'

5 head

+ echo '5 tail'

5 tail

+ (( i++ ))

+ '[' 6 -lt 12 ']'

+ echo '6 head'

6 head

+ echo '6 tail'

6 tail

+ (( i++ ))

+ '[' 7 -lt 12 ']'

+ echo '7 head'

7 head

+ echo '7 tail'

7 tail

+ (( i++ ))

+ '[' 8 -lt 12 ']'

+ echo '8 head'

8 head

+ echo '8 tail'

8 tail

+ (( i++ ))

+ '[' 9 -lt 12 ']'

+ echo '9 head'

9 head

+ echo '9 tail'

9 tail

+ (( i++ ))

+ '[' 10 -lt 12 ']'

+ echo '10 head'

10 head

+ echo '10 tail'

10 tail

+ (( i++ ))

+ '[' 11 -lt 12 ']'

+ echo '11 head'

11 head

+ echo '11 tail'

11 tail

+ (( i++ ))

+ '[' 12 -lt 12 ']'