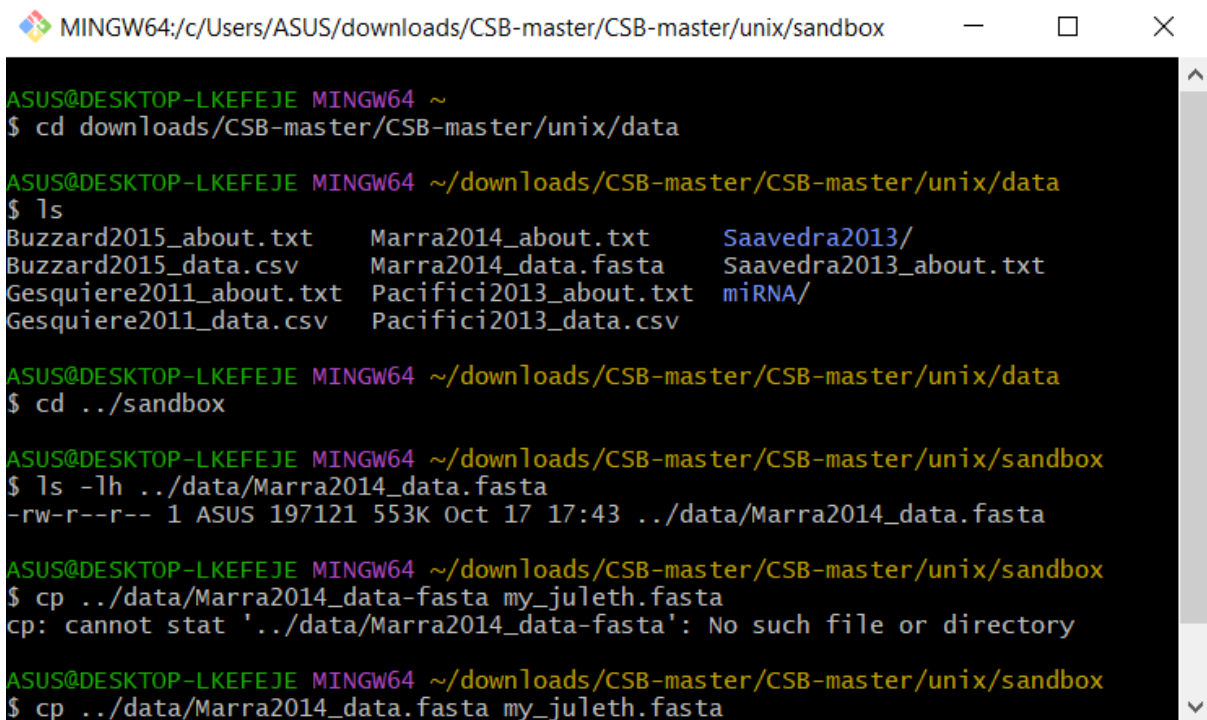


TC3_ForLoop

1. Realice la actividad de acuerdo a las indicaciones del documento.



```
MINGW64:/c/Users/ASUS/downloads/CSB-master/CSB-master/unix/sandbox
ASUS@DESKTOP-LKEFEJE MINGW64 ~
$ cd downloads/CSB-master/CSB-master/unix/data

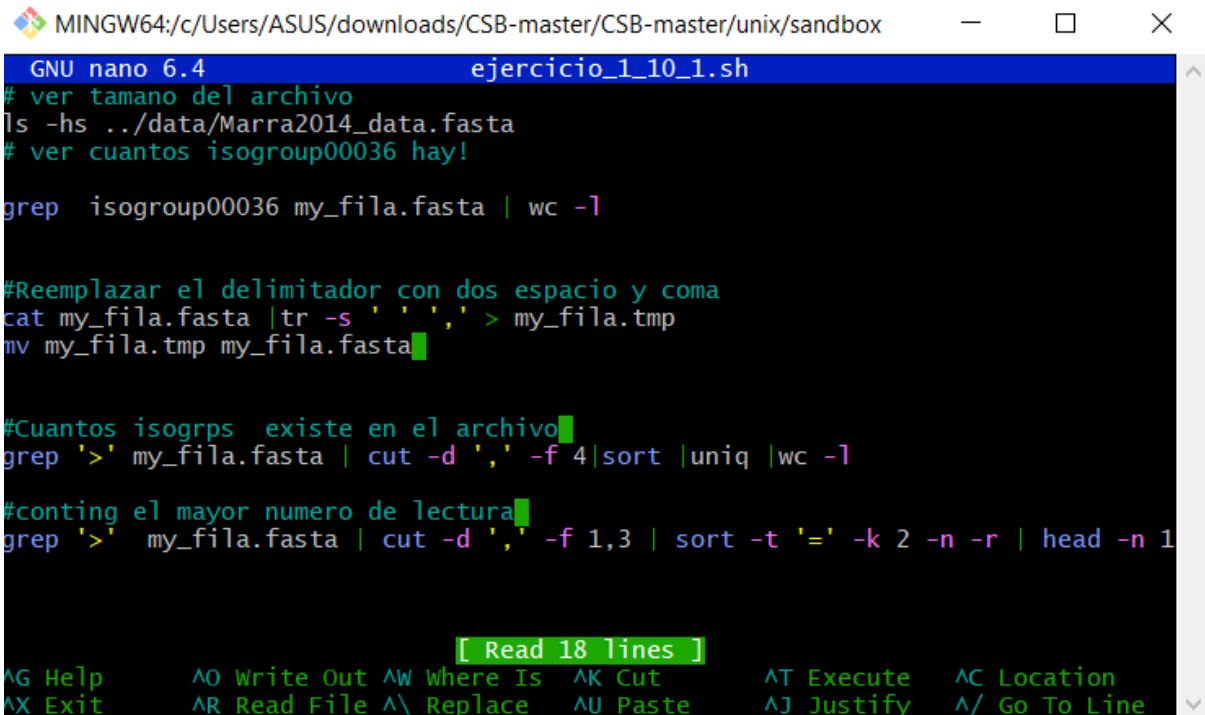
ASUS@DESKTOP-LKEFEJE MINGW64 ~/downloads/CSB-master/CSB-master/unix/data
$ ls
Buzzard2015_about.txt      Marra2014_about.txt      Saavedra2013/
Buzzard2015_data.csv       Marra2014_data.fasta     Saavedra2013_about.txt
Gesquiere2011_about.txt   Pacifici2013_about.txt   mirNA/
Gesquiere2011_data.csv    Pacifici2013_data.csv

ASUS@DESKTOP-LKEFEJE MINGW64 ~/downloads/CSB-master/CSB-master/unix/data
$ cd ../sandbox

ASUS@DESKTOP-LKEFEJE MINGW64 ~/downloads/CSB-master/CSB-master/unix/sandbox
$ ls -lh ../data/Marra2014_data.fasta
-rw-r--r-- 1 ASUS 197121 553K Oct 17 17:43 ../data/Marra2014_data.fasta

ASUS@DESKTOP-LKEFEJE MINGW64 ~/downloads/CSB-master/CSB-master/unix/sandbox
$ cp ../data/Marra2014_data.fasta my_juleth.fasta
cp: cannot stat '../data/Marra2014_data.fasta': No such file or directory

ASUS@DESKTOP-LKEFEJE MINGW64 ~/downloads/CSB-master/CSB-master/unix/sandbox
$ cp ../data/Marra2014_data.fasta my_juleth.fasta
```



```

MINGW64:/c/Users/ASUS/downloads/CSB-master/CSB-master/unix/sandbox
GNU nano 6.4 ejercicio_1_10_1.sh
# ver tamaño del archivo
ls -hs ../data/Marra2014_data.fasta
# ver cuantos isogroup00036 hay!

grep isogroup00036 my_fil.a.fasta | wc -l

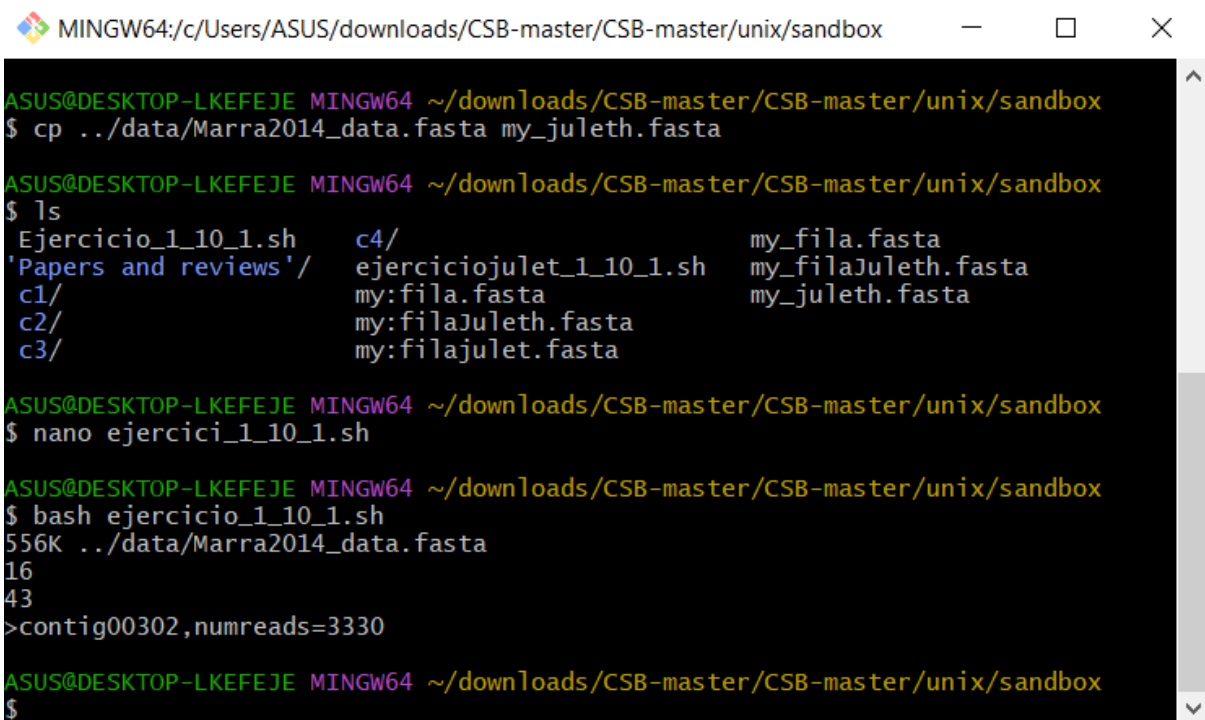
#Reemplazar el delimitador con dos espacio y coma
cat my_fil.a.fasta |tr -s ' ',' ' > my_fil.a.tmp
mv my_fil.a.tmp my_fil.a.fasta

#Cuantos isogrps existe en el archivo
grep '>' my_fil.a.fasta | cut -d ',' -f 4 | sort | uniq | wc -l

#conting el mayor numero de lectura
grep '>' my_fil.a.fasta | cut -d ',' -f 1,3 | sort -t '=' -k 2 -n -r | head -n 1

[ Read 18 lines ]
^G Help      ^O Write Out ^W Where Is  ^K Cut      ^T Execute  ^C Location
^X Exit      ^R Read File ^\ Replace   ^U Paste    ^J Justify  ^_ Go To Line

```



```

MINGW64:/c/Users/ASUS/downloads/CSB-master/CSB-master/unix/sandbox
ASUS@DESKTOP-LKEFEJE MINGW64 ~/downloads/CSB-master/CSB-master/unix/sandbox
$ cp ../data/Marra2014_data.fasta my_juleth.fasta

ASUS@DESKTOP-LKEFEJE MINGW64 ~/downloads/CSB-master/CSB-master/unix/sandbox
$ ls
Ejercicio_1_10_1.sh      c4/                  my_fil.a.fasta
'Papers and reviews'/  ejerciciojulet_1_10_1.sh  my_fil.a.juleth.fasta
c1/                     my:fil.a.fasta         my_juleth.fasta
c2/                     my:fil.a.juleth.fasta
c3/                     my:fil.a.julet.fasta

ASUS@DESKTOP-LKEFEJE MINGW64 ~/downloads/CSB-master/CSB-master/unix/sandbox
$ nano ejercicio_1_10_1.sh

ASUS@DESKTOP-LKEFEJE MINGW64 ~/downloads/CSB-master/CSB-master/unix/sandbox
$ bash ejercicio_1_10_1.sh
556K ../data/Marra2014_data.fasta
16
43
>contig00302,numreads=3330

ASUS@DESKTOP-LKEFEJE MINGW64 ~/downloads/CSB-master/CSB-master/unix/sandbox
$

```

Ejercicio 1 -10 - 2

```
MINGW64:/c/Users/ASUS/downloads/CSB-master/CSB-master/unix
ASUS@DESKTOP-LKEFEJE MINGW64 ~
$ cd downloads/CSB-master/CSB-master/unix
ASUS@DESKTOP-LKEFEJE MINGW64 ~/downloads/CSB-master/CSB-master/unix
$ nano ejercicio_1_10_2_juleth.sh
ASUS@DESKTOP-LKEFEJE MINGW64 ~/downloads/CSB-master/CSB-master/unix
$
```

```
MINGW64:/c/Users/ASUS/downloads/CSB-master/CSB-master/unix
GNU nano 6.4 ejercicio_1_10_2_juleth.sh Modified
#cuantas veces los niveles de los individuos 3 y 27 existe!
#Para los individuos 3
cut -f 1 data/Gesquiere2011_data.csv | grep -w 3 | grep -c 3

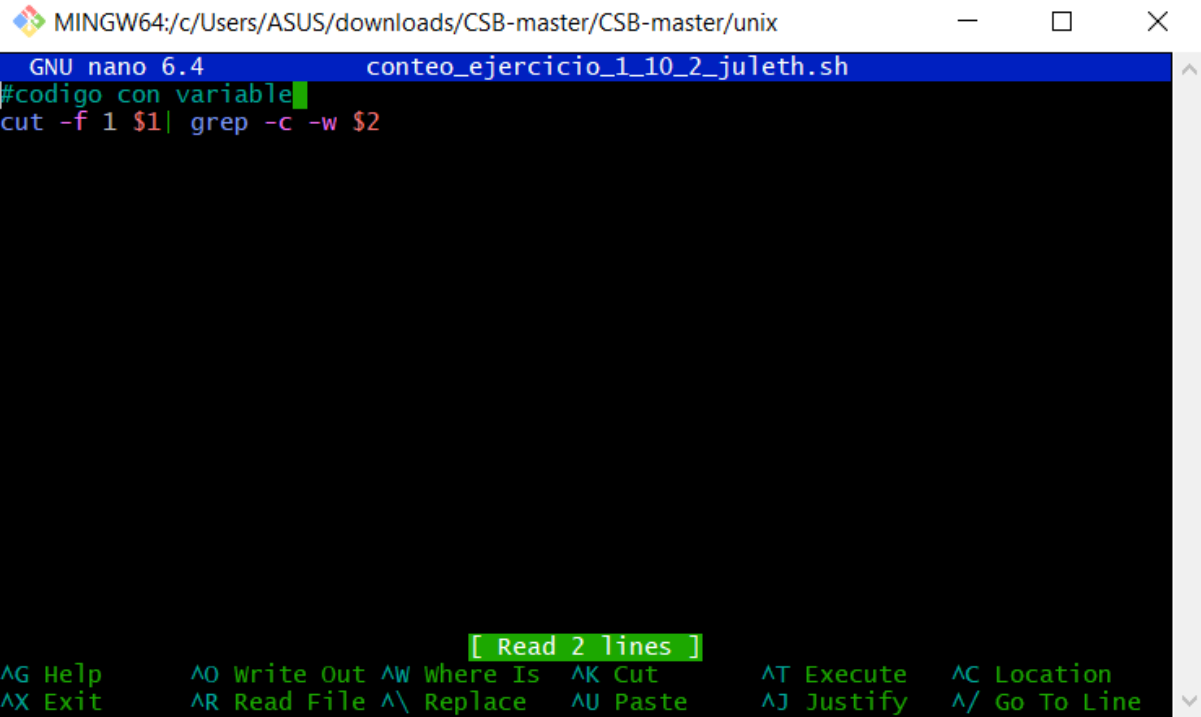
#para los individuos 27
cut -f 1 data/Gesquiere2011_data.csv | grep -w 27 | grep -c 27

####

#para ellos se crea un vector con IDS del downloads
vdownloads=`tail -n +2 data/Gesquiere2011_data.csv | cut -f 1 | uniq `

for x in $vdownloads
do
ids=`bash conteo_Ejercicio_1_10_2_juleth.sh data/Gesquiere2011_data.csv $x`
echo "ID" $x "conteo:" $ids
done

^G Help      ^O Write Out ^W Where Is  ^K Cut       ^T Execute   ^C Location
^X Exit      ^R Read File ^\ Replace   ^U Paste     ^J Justify   ^_ Go To Line
```



A screenshot of a terminal window running GNU nano 6.4. The title bar shows the path 'MINGW64:/c/Users/ASUS/downloads/CSB-master/CSB-master/unix'. The editor is editing a file named 'conteo_ejercicio_1_10_2_juleth.sh'. The content of the file is a shell script snippet: '#codigo con variable' followed by 'cut -f 1 \$1| grep -c -w \$2'. The bottom status bar shows various keyboard shortcuts for nano, including 'AG Help', 'AO Write Out', 'AW Where Is', 'AK Cut', 'AT Execute', 'AC Location', 'AX Exit', 'AR Read File', 'A\ Replace', 'AU Paste', 'AJ Justify', and 'A/ Go To Line'. A green highlight is visible over the text '[Read 2 lines]'.

```
GNU nano 6.4 conteo_ejercicio_1_10_2_juleth.sh
#codigo con variable
cut -f 1 $1| grep -c -w $2

[ Read 2 lines ]
AG Help      AO Write Out AW Where Is  AK Cut       AT Execute   AC Location
AX Exit      AR Read File A\ Replace   AU Paste     AJ Justify   A/ Go To Line
```



A screenshot of a terminal window showing the execution of a script. The prompt is 'ASUS@DESKTOP-LKEFEJE MINGW64 ~/downloads/CSB-master/CSB-master/unix'. The user runs 'nano ejercicio_1_10_2_juleth.sh', then 'nano conteo_ejercicio_1_10_2_juleth.sh', and finally 'bash ejercicio_1_10_2_juleth.sh'. The output of the script is a list of 14 lines, each starting with 'ID' followed by a number and 'conteo:' followed by a value.

```
ASUS@DESKTOP-LKEFEJE MINGW64 ~/downloads/CSB-master/CSB-master/unix
$ nano ejercicio_1_10_2_juleth.sh

ASUS@DESKTOP-LKEFEJE MINGW64 ~/downloads/CSB-master/CSB-master/unix
$ nano conteo_ejercicio_1_10_2_juleth.sh

ASUS@DESKTOP-LKEFEJE MINGW64 ~/downloads/CSB-master/CSB-master/unix
$ bash ejercicio_1_10_2_juleth.sh
61
5
ID 1 conteo: 10
ID 2 conteo: 2
ID 3 conteo: 61
ID 4 conteo: 46
ID 5 conteo: 28
ID 6 conteo: 7
ID 7 conteo: 5
ID 8 conteo: 17
ID 9 conteo: 4
ID 10 conteo: 21
ID 11 conteo: 26
ID 12 conteo: 23
ID 13 conteo: 16
ID 14 conteo: 1
```

```
MINGW64/c/Users/ASUS/downloads/CSB-master/CSB-master/unix
ID 72 conteo: 2
ID 73 conteo: 10
ID 74 conteo: 1
ID 75 conteo: 15
ID 76 conteo: 39
ID 77 conteo: 2
ID 78 conteo: 29
ID 79 conteo: 4
ID 80 conteo: 35
ID 81 conteo: 1
ID 82 conteo: 27
ID 83 conteo: 2
ID 84 conteo: 11
ID 85 conteo: 1
ID 86 conteo: 39
ID 87 conteo: 18
ID 88 conteo: 46
ID 89 conteo: 25
ID 90 conteo: 24
ID 91 conteo: 32
ID 92 conteo: 1
ID 93 conteo: 7
ID 94 conteo: 25
ID 95 conteo: 71
ID 96 conteo: 17
ID 97 conteo: 17
ID 98 conteo: 5
ID 99 conteo: 2
ID 100 conteo: 13
ID 101 conteo: 26
ID 102 conteo: 15
ID 103 conteo: 26
ID 104 conteo: 29
ID 105 conteo: 6
ID 106 conteo: 46
ID 107 conteo: 7
ID 108 conteo: 41
ID 109 conteo: 28
ID 110 conteo: 3
ID 111 conteo: 24
ID 112 conteo: 3
ID 113 conteo: 1
ID 114 conteo: 1
ID 115 conteo: 1
ID 116 conteo: 14
ID 118 conteo: 23
ID 119 conteo: 1
ID 120 conteo: 42
ID 121 conteo: 12
ID 122 conteo: 9
ID 123 conteo: 39
ID 124 conteo: 1
ID 125 conteo: 39
ID 126 conteo: 15
ID 127 conteo: 13
ASUSDESKTOP-LKEFEJE MINGW64 ~/downloads/CSB-master/CSB-master/unix
$
```

Ejercicio 1 -10 - 3

```
MINGW64/c/Users/ASUS/downloads/CSB-master/CSB-master/unix/data/saavedra2013
ASUSDESKTOP-LKEFEJE MINGW64 ~
$ cd downloads/CSB-master/CSB-master/unix
ASUSDESKTOP-LKEFEJE MINGW64 ~/downloads/CSB-master/CSB-master/unix
$ cd data/saavedra2013
ASUSDESKTOP-LKEFEJE MINGW64 ~/downloads/CSB-master/CSB-master/unix/data/saavedra2013
$ touch juleth.sh
ASUSDESKTOP-LKEFEJE MINGW64 ~/downloads/CSB-master/CSB-master/unix/data/saavedra2013
$ filas='wc -l <n1.txt'
ASUSDESKTOP-LKEFEJE MINGW64 ~/downloads/CSB-master/CSB-master/unix/data/saavedra2013
$ echo "El numero de filas y columnas de n1.txt son: $filas, $columnas." >> juleth.txt
$ bash juleth.sh
ASUSDESKTOP-LKEFEJE MINGW64 ~/downloads/CSB-master/CSB-master/unix/data/saavedra2013
$ bash juleth.sh
ASUSDESKTOP-LKEFEJE MINGW64 ~/downloads/CSB-master/CSB-master/unix/data/saavedra2013
$ ls
juleth.sh  n17.txt  n26.txt  n35.txt  n44.txt  n53.txt  n9.txt
juleth.txt n18.txt  n27.txt  n36.txt  n45.txt  n54.txt  netsize.sh
n1.txt    n19.txt  n28.txt  n37.txt  n46.txt  n55.txt  netsize.txt
n10.txt   n2.txt   n29.txt  n38.txt  n47.txt  n56.txt  netsize_all
n11.txt   n20.txt  n3.txt   n39.txt  n48.txt  n57.txt  netsize_all.txt
n12.txt   n21.txt  n30.txt  n4.txt   n49.txt  n58.txt
n13.txt   n22.txt  n31.txt  n40.txt  n5.txt   n59.txt
n14.txt   n23.txt  n32.txt  n41.txt  n50.txt  n6.txt
n15.txt   n24.txt  n33.txt  n42.txt  n51.txt  n7.txt
n16.txt   n25.txt  n34.txt  n43.txt  n52.txt  n8.txt
ASUSDESKTOP-LKEFEJE MINGW64 ~/downloads/CSB-master/CSB-master/unix/data/saavedra2013
$ |
```

```
MINGW64:/c:/Users/ASUS/downloads/CSB-master/CSB-master/unix/data/saavedra2013
bash juleth.sh
ASUS@DESKTOP-LKEFEJE MINGW64 ~/downloads/CSB-master/CSB-master/unix/data/saavedra2013
$ bash juleth.sh
ASUS@DESKTOP-LKEFEJE MINGW64 ~/downloads/CSB-master/CSB-master/unix/data/saavedra2013
$ ls
juleth.sh      n17.txt      n26.txt      n35.txt      n44.txt      n53.txt      n9.txt
juleth.txt     n18.txt      n27.txt      n36.txt      n45.txt      n54.txt      netsize.sh
n1.txt         n19.txt      n28.txt      n37.txt      n46.txt      n55.txt      netsize.txt
n10.txt        n2.txt       n29.txt      n38.txt      n47.txt      n56.txt      netsize_all
n11.txt        n20.txt      n3.txt       n39.txt      n48.txt      n57.txt      netsize_all.txt
n12.txt        n21.txt      n30.txt      n4.txt       n49.txt      n58.txt
n13.txt        n22.txt      n31.txt      n40.txt      n5.txt       n59.txt
n14.txt        n23.txt      n32.txt      n41.txt      n50.txt      n6.txt
n15.txt        n24.txt      n33.txt      n42.txt      n51.txt      n7.txt
n16.txt        n25.txt      n34.txt      n43.txt      n52.txt      n8.txt
ASUS@DESKTOP-LKEFEJE MINGW64 ~/downloads/CSB-master/CSB-master/unix/data/saavedra2013
$ touch juleth_all.sh
ASUS@DESKTOP-LKEFEJE MINGW64 ~/downloads/CSB-master/CSB-master/unix/data/saavedra2013
$ for archivo in *.txt;
> do
> numero_fila='cat $archivo | wc -l'
> numero_columnas='head -n 1 $archivo | tr -d " " | tr -d "\n" | wc -c'
> echo "el numero de filas y columnas de $archivo son: $numero_fila, $numero_columna.">> juleth_all.txt
> done
```

MINGW64: c:/Users/ASUS/downloads/CSB-master/CSB-master/unix/data/saavedra2013

bash juleth.sh

ASUS@DESKTOP-LKEFEJE MINGW64 ~/downloads/CSB-master/CSB-master/unix/data/saavedra2013

\$ bash juleth.sh

ASUS@DESKTOP-LKEFEJE MINGW64 ~/downloads/CSB-master/CSB-master/unix/data/saavedra2013

\$ ls

juleth.sh	n17.txt	n26.txt	n35.txt	n44.txt	n53.txt	n9.txt
juleth.txt	n18.txt	n27.txt	n36.txt	n45.txt	n54.txt	netsize.sh
n1.txt	n19.txt	n28.txt	n37.txt	n46.txt	n55.txt	netsize.txt
n10.txt	n2.txt	n29.txt	n38.txt	n47.txt	n56.txt	netsize_all
n11.txt	n20.txt	n3.txt	n39.txt	n48.txt	n57.txt	netsize_all.txt
n12.txt	n21.txt	n30.txt	n4.txt	n49.txt	n58.txt	
n13.txt	n22.txt	n31.txt	n40.txt	n5.txt	n59.txt	
n14.txt	n23.txt	n32.txt	n41.txt	n50.txt	n6.txt	
n15.txt	n24.txt	n33.txt	n42.txt	n51.txt	n7.txt	
n16.txt	n25.txt	n34.txt	n43.txt	n52.txt	n8.txt	

ASUS@DESKTOP-LKEFEJE MINGW64 ~/downloads/CSB-master/CSB-master/unix/data/saavedra2013

\$ touch juleth_all.sh

ASUS@DESKTOP-LKEFEJE MINGW64 ~/downloads/CSB-master/CSB-master/unix/data/saavedra2013

\$

for archivo in *.txt;

do

numero_fila='cat \$archivo | wc -l'

numero_columnas='head -n 1 \$archivo | tr -d " " | tr -d "\n" | wc -c'

echo "el numero de filas y columnas de \$archivo son: \$numero_fila, \$numero_columna.">> juleth_all.txt

done

ASUS@DESKTOP-LKEFEJE MINGW64 ~/downloads/CSB-master/CSB-master/unix/data/saavedra2013

\$ bash juleth_all.sh

ASUS@DESKTOP-LKEFEJE MINGW64 ~/downloads/CSB-master/CSB-master/unix/data/saavedra2013

\$ ls

juleth.sh	n12.txt	n19.txt	n25.txt	n31.txt	n38.txt	n44.txt	n50.txt	n57.txt	netsize.sh
juleth.txt	n13.txt	n2.txt	n26.txt	n32.txt	n39.txt	n45.txt	n51.txt	n58.txt	netsize.txt
juleth_all	n14.txt	n20.txt	n27.txt	n33.txt	n4.txt	n46.txt	n52.txt	n59.txt	netsize_all
juleth_all.txt	n15.txt	n21.txt	n28.txt	n34.txt	n40.txt	n47.txt	n53.txt	n6.txt	netsize_all.txt
n1.txt	n16.txt	n22.txt	n29.txt	n35.txt	n41.txt	n48.txt	n54.txt	n7.txt	
n10.txt	n17.txt	n23.txt	n3.txt	n36.txt	n42.txt	n49.txt	n55.txt	n8.txt	
n11.txt	n18.txt	n24.txt	n30.txt	n37.txt	n43.txt	n5.txt	n56.txt	n9.txt	

ASUS@DESKTOP-LKEFEJE MINGW64 ~/downloads/CSB-master/CSB-master/unix/data/saavedra2013

\$