UNIVERSIDAD REGIONAL AMAZONICA IKIAM
Nombre:
Fecha: 18/11/2022
Materia: Bioinformática

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Ejercicio 1-10-1

```
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 ../

ASUS@DESKTOP-LKEFEJE MINGW64 ~/downloads/CSB-master/CSB-master/unix
$ 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_fila.fasta

ASUS@DESKTOP-LKEFEJE MINGW64 ~/downloads/CSB-master/CSB-master/unix/sandbox
$ ls
'Papers and reviews'/   c1/   c2/   c3/   c4/   my_fila.fasta

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

```
  GNU nano 6.4                    Ejercicio_1_10_1.sh                        Modified
# ver tamano del archivo
ls -hs ../data/Marra2014_data.fasta
# ver cuantos isogroup00036 hay!

grep  isogroup00036 my_fila.fasta | wc -l


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


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

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




^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
```

Ejercicio 1 -10 - 2

```
GNU nano 6.4                    ejercicio_1_10_2_shomi.sh

#cuantas veces los niveles de los inidividuos 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_shomi.sh data/Gesquiere2011_data.csv $x`
echo "ID" $x "conteo:" $ids
done



                         [ Read 20 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
```

```
GNU nano 6.4              conteo_Ejercicio_1_10_2_shomi.sh          Modified
#codigo con variables

cut -f 1 $1| grep -c -w $2












^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
```

```
ASUS@DESKTOP-LKEFEJE MINGW64 ~/downloads/CSB-master/CSB-master/unix
$ ls
Conteo_1_10_2_shomi.sh        conteo_Ejercicio_1_10_2_shomi.sh    sandbox/
Ejercicio_1_10_2_shomi.sh    data/                                solutions/
bionfo/                       installation/

ASUS@DESKTOP-LKEFEJE MINGW64 ~/downloads/CSB-master/CSB-master/unix
$ nano ejercicio_1_10_2_shomi.sh

ASUS@DESKTOP-LKEFEJE MINGW64 ~/downloads/CSB-master/CSB-master/unix
$ bash ejercicio_1_10_2_shomi.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 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

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

Ejercicio 1 -10 -3

```
ASUS@DESKTOP-LKEFEJE MINGW64 ~
$ cd downloads

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

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

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

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

ASUS@DESKTOP-LKEFEJE MINGW64 ~/downloads/CSB-master/CSB-master/unix/data/saavedr
a2013
$ touch netsize.sh

ASUS@DESKTOP-LKEFEJE MINGW64 ~/downloads/CSB-master/CSB-master/unix/data/saavedr
a2013
$ |
```

```
ASUS@DESKTOP-LKEFEJE MINGW64 ~/downloads/CSB-master/CSB-master/unix/data/saavedr
a2013
$ fila=`wc -l < n1.txt`

ASUS@DESKTOP-LKEFEJE MINGW64 ~/downloads/CSB-master/CSB-master/unix/data/saavedr
a2013
$ echo " el numero de filas y columnas del n1.txt son: $filas, $columnas. " >> n
etsize.txt

ASUS@DESKTOP-LKEFEJE MINGW64 ~/downloads/CSB-master/CSB-master/unix/data/saavedr
a2013
$ bash netsize.sh

ASUS@DESKTOP-LKEFEJE MINGW64 ~/downloads/CSB-master/CSB-master/unix/data/saavedra2013
$ ls
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
n12.txt   n19.txt  n25.txt  n31.txt  n38.txt  n44.txt  n50.txt  n57.txt  netsize.sh
n13.txt   n2.txt   n26.txt  n32.txt  n39.txt  n45.txt  n51.txt  n58.txt  netsize.txt
n14.txt   n20.txt  n27.txt  n33.txt  n4.txt   n46.txt  n52.txt  n59.txt
n15.txt   n21.txt  n28.txt  n34.txt  n40.txt  n47.txt  n53.txt  n6.txt

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

```
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.">> netsize_all.txt
> done

ASUS@DESKTOP-LKEFEJE MINGW64 ~/downloads/CSB-master/CSB-master/unix/data/saavedra2013
$ bash netsize_all .sh

ASUS@DESKTOP-LKEFEJE MINGW64 ~/downloads/CSB-master/CSB-master/unix/data/saavedra2013
$ ls
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
n12.txt   n19.txt  n25.txt  n31.txt  n38.txt  n44.txt  n50.txt  n57.txt  netsize.sh
n13.txt   n2.txt   n26.txt  n32.txt  n39.txt  n45.txt  n51.txt  n58.txt  netsize.txt
n14.txt   n20.txt  n27.txt  n33.txt  n4.txt   n46.txt  n52.txt  n59.txt  netsize_all
n15.txt   n21.txt  n28.txt  n34.txt  n40.txt  n47.txt  n53.txt  n6.txt   netsize_all.txt

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