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1.10.3 PLANT–POLLINATOR NETWORKS

- Captura de pantalla de la ejecución del archivo **netsize.sh**

The data of Saavedra and Stouffer (2013) can be found in the directory CSB/unix/data/Saavedra2013.

1. Write a script that takes one of these files and determines the number of rows (pollinators) and columns (plants). Note that columns are separated by spaces and that there is a space at the end of each line. Your script should return.

```
Asus@DESKTOP-7TQ77UE MINGW64 ~
$ cd Documents/CSB-master/unix/data/Saavedra2013

Asus@DESKTOP-7TQ77UE MINGW64 ~/Documents/CSB-master/unix/data/Saavedra2013 (master)
$ cat ../Saavedra2013/n20.txt |wc -l
18

Asus@DESKTOP-7TQ77UE MINGW64 ~/Documents/CSB-master/unix/data/Saavedra2013 (master)
$ cat ../Saavedra2013/n25.txt |wc -l
17

Asus@DESKTOP-7TQ77UE MINGW64 ~/Documents/CSB-master/unix/data/Saavedra2013 (master)
$ head -n 1 ../Saavedra2013/n20.txt
1 0 1 1 1 1

Asus@DESKTOP-7TQ77UE MINGW64 ~/Documents/CSB-master/unix/data/Saavedra2013 (master)
$ head -n 1 ../Saavedra2013/n25.txt
1 1 1 1 1 1 1 1 1 1 1 1 1 0 1 1

Asus@DESKTOP-7TQ77UE MINGW64 ~/Documents/CSB-master/unix/data/Saavedra2013 (master)
$ head -n 1 ../Saavedra2013/n20.txt | tr -d " " | tr -d "\n" | wc -c
7
```

```
Asus@DESKTOP-7TQ77UE MINGW64 ~/Documents/CSB-master/unix/data/Saavedra2013 (master)
$ echo "Nayeli,Pineda" > netsize.txt

Asus@DESKTOP-7TQ77UE MINGW64 ~/Documents/CSB-master/unix/data/Saavedra2013 (master)
$ echo "Filas" >> netsize.txt | wc -l n25.txt >>netsize.txt

Asus@DESKTOP-7TQ77UE MINGW64 ~/Documents/CSB-master/unix/data/Saavedra2013 (master)
$ echo "Columnas" >> netsize.txt |head -n 1 ../Saavedra2013/n25.txt | tr -d " " | tr -d
 "\n" | wc -c >> netsize.txt

Asus@DESKTOP-7TQ77UE MINGW64 ~/Documents/CSB-master/unix/data/Saavedra2013 (master)
$
```

Con condicional para todos los archivos.txt

```
Asus@DESKTOP-7TQ77UE MINGW64 ~/Documents/CSB-master/unix/data/Saavedra2013 (master)
$ nano netsize1.sh

Asus@DESKTOP-7TQ77UE MINGW64 ~/Documents/CSB-master/unix/data/Saavedra2013 (master)
$ cat netsize1.sh
#!/bin/bash
echo "Nayeli,Pineda; Analisis de datso simples"
echo "Nombre del archivo:"
echo $1
echo "Numero de filas:"
cat $1 | wc -l
echo "Numero de columnas:"
head -n 1 $1 | tr -d " " | tr -d "\n" | wc -c


Asus@DESKTOP-7TQ77UE MINGW64 ~/Documents/CSB-master/unix/data/Saavedra2013 (master)
$ ./netsize1.sh n25.txt
Nayeli,Pineda; Analisis de datso simples
Nombre del archivo:
n25.txt
Numero de filas:
17
Numero de columnas:
16

Asus@DESKTOP-7TQ77UE MINGW64 ~/Documents/CSB-master/unix/data/Saavedra2013 (master)
$
```

```
Asus@DESKTOP-7TQ77UE MINGW64 ~/Documents/CSB-master/unix/data/Saavedra2013 (master)
$ ./netsize_all.sh n1.txt

Asus@DESKTOP-7TQ77UE MINGW64 ~/Documents/CSB-master/unix/data/Saavedra2013 (master)
$ cat netsize1.sh
#!/bin/bash
echo "Nayeli,Pineda; Analisis de datso simples"
echo "Nombre del archivo:"
echo $1
echo "Numero de filas:"
cat $1 | wc -l
echo "Numero de columnas:"
head -n 1 $1 | tr -d " " | tr -d "\n" | wc -c


Asus@DESKTOP-7TQ77UE MINGW64 ~/Documents/CSB-master/unix/data/Saavedra2013 (master)
$ ./netsize1.sh n1.txt > netsize1.txt

Asus@DESKTOP-7TQ77UE MINGW64 ~/Documents/CSB-master/unix/data/Saavedra2013 (master)
$ ./netsize1.sh n2.txt > netsize1.txt

Asus@DESKTOP-7TQ77UE MINGW64 ~/Documents/CSB-master/unix/data/Saavedra2013 (master)
$ ./netsize1.sh n1.txt > netsize1.txt

Asus@DESKTOP-7TQ77UE MINGW64 ~/Documents/CSB-master/unix/data/Saavedra2013 (master)
$ ./netsize1.sh n2.txt >> netsize1.txt

Asus@DESKTOP-7TQ77UE MINGW64 ~/Documents/CSB-master/unix/data/Saavedra2013 (master)
$ ./netsize1.sh n3.txt >> netsize1.txt

Asus@DESKTOP-7TQ77UE MINGW64 ~/Documents/CSB-master/unix/data/Saavedra2013 (master)
$ ./netsize1.sh n4.txt >> netsize1.txt

Asus@DESKTOP-7TQ77UE MINGW64 ~/Documents/CSB-master/unix/data/Saavedra2013 (master)
$ ./netsize1.sh n5.txt >> netsize1.txt

Asus@DESKTOP-7TQ77UE MINGW64 ~/Documents/CSB-master/unix/data/Saavedra2013 (master)
```

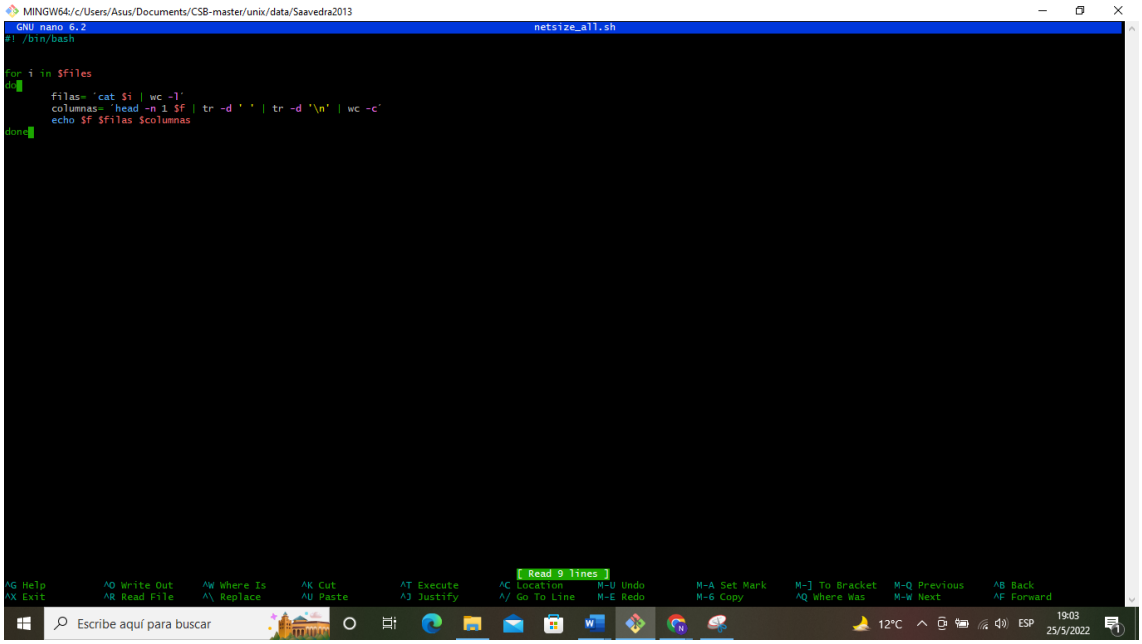
2. [Advanced]

Write a script that prints the numbers of rows and columns for each network:

```
Asus@DESKTOP-7TQ77UE MINGW64 ~/Documents/CSB-master/unix/data/Saavedra2013 (mast
er)
$ cat netsize_all.sh
#! /bin/bash


for f in $files
do
        filas= 'cat $f | wc -l'
        columnas= 'head -n 1 $f | tr -d ' ' | tr -d '\n' | wc -c'
        echo $f $filas $columnas
done

Asus@DESKTOP-7TQ77UE MINGW64 ~/Documents/CSB-master/unix/data/Saavedra2013 (mast
er)
$ bash ./netsize_all.sh n13
```




```
Asus@DESKTOP-7TQ77UE MINGW64 ~/Documents/CSB-master/unix/data/Saavedra2013 (master)
$ echo "Nayeli, Pineda; Análisis de datos con bucle FOR" > netsize_all.txt

Asus@DESKTOP-7TQ77UE MINGW64 ~/Documents/CSB-master/unix/data/Saavedra2013 (master)
$ echo "archivo" >>netsize_all.txt | for i in *.txt; do echo $i; done >> netsize_all.txt

Asus@DESKTOP-7TQ77UE MINGW64 ~/Documents/CSB-master/unix/data/Saavedra2013 (master)
$ echo "filas" >> netsize_all.txt |for item in ../Saavedra2013/*.txt; do cat $item | wc -l; done >> netsize_a
ll.txt

Asus@DESKTOP-7TQ77UE MINGW64 ~/Documents/CSB-master/unix/data/Saavedra2013 (master)
$ echo "Número de columnas" >> netsize_all.txt |for a in ../Saavedra2013/*.txt; do head -n 1 $a | tr -d "\n"
| wc -c; done
160
40
182
144
34
```

```
Asus@DESKTOP-7TQ77UE MINGW64 ~/Documents/CSB-master/unix/data/Saavedra2013 (master)
$ echo "Número de columnas" >> netsize_all.txt |for a in ../Saavedra2013/*.txt; do head -n 1 $a | tr -d "\n"
| wc -c; done >> netsize_all.txt

Asus@DESKTOP-7TQ77UE MINGW64 ~/Documents/CSB-master/unix/data/Saavedra2013 (master)
$
```