

# Práctica 4

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## 1. Programa simple en WHILE que computa una función que diverge:

```
diverger = (0, s)
s:
  X1 := X1 + 1;
  while X1 != 0 do
    X1 := X1;
  od
```

```
alumno@TALF:~$ cd Descargas
alumno@TALF:~/Descargas$ cd talfuma
alumno@TALF:~/Descargas/talfuma$ cd software
alumno@TALF:~/Descargas/talfuma/software$ cd Whilelanguage
alumno@TALF:~/Descargas/talfuma/software/Whilelanguage$ cd encoding
alumno@TALF:~/Descargas/talfuma/software/Whilelanguage/encoding$ octave --no-guiGNU Octave, version 4.2.2
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FITNESS FOR A PARTICULAR PURPOSE. For details, type 'warranty'.

Octave was configured for "x86_64-pc-linux-gnu".

Additional information about Octave is available at http://www.octave.org.

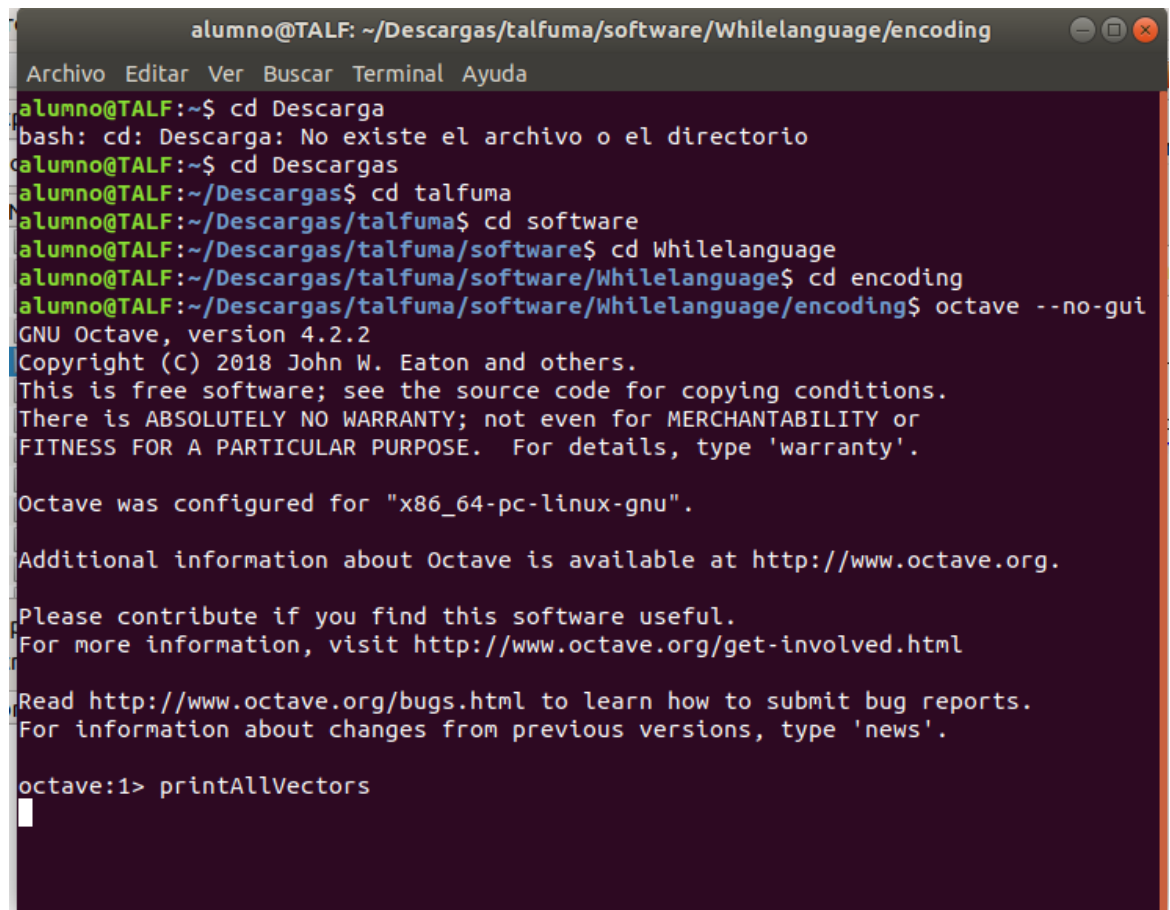
Please contribute if you find this software useful.
For more information, visit http://www.octave.org/get-involved.html

Read http://www.octave.org/bugs.html to learn how to submit bug reports.
For information about changes from previous versions, type 'news'.

octave:1> WHILE2N(0, "X1:=X1+1;while X1!=0 do X1:=X1 od")
ans = 9678230627
```

## 2. Scripts de Octave que enumeran todos los vectores:

```
function printAllVectors
    i = 0;
    while true
        [' (' num2str(godeldecoding(i) ') ') ' ]
        i = i + 1;
    endwhile
end
```



The screenshot shows a terminal window titled 'alumno@TALF: ~/Descargas/talfuma/software/Whilelanguage/encoding'. The user navigates through several directories: '~', 'Descarga', 'Descargas', 'talfuma', 'software', and 'Whilelanguage', finally reaching 'encoding'. They then run 'octave --no-gui'. The Octave startup screen displays version 4.2.2, copyright information, and various links. Finally, the user enters 'octave:1> printAllVectors' at the prompt, and a cursor is visible on the next line.

```
alumno@TALF: ~/Descargas/talfuma/software/Whilelanguage/encoding
Archivo Editar Ver Buscar Terminal Ayuda
alumno@TALF:~$ cd Descarga
bash: cd: Descarga: No existe el archivo o el directorio
alumno@TALF:~$ cd Descargas
alumno@TALF:~/Descargas$ cd talfuma
alumno@TALF:~/Descargas/talfuma$ cd software
alumno@TALF:~/Descargas/talfuma/software$ cd Whilelanguage
alumno@TALF:~/Descargas/talfuma/software/Whilelanguage$ cd encoding
alumno@TALF:~/Descargas/talfuma/software/Whilelanguage/encoding$ octave --no-gui
GNU Octave, version 4.2.2
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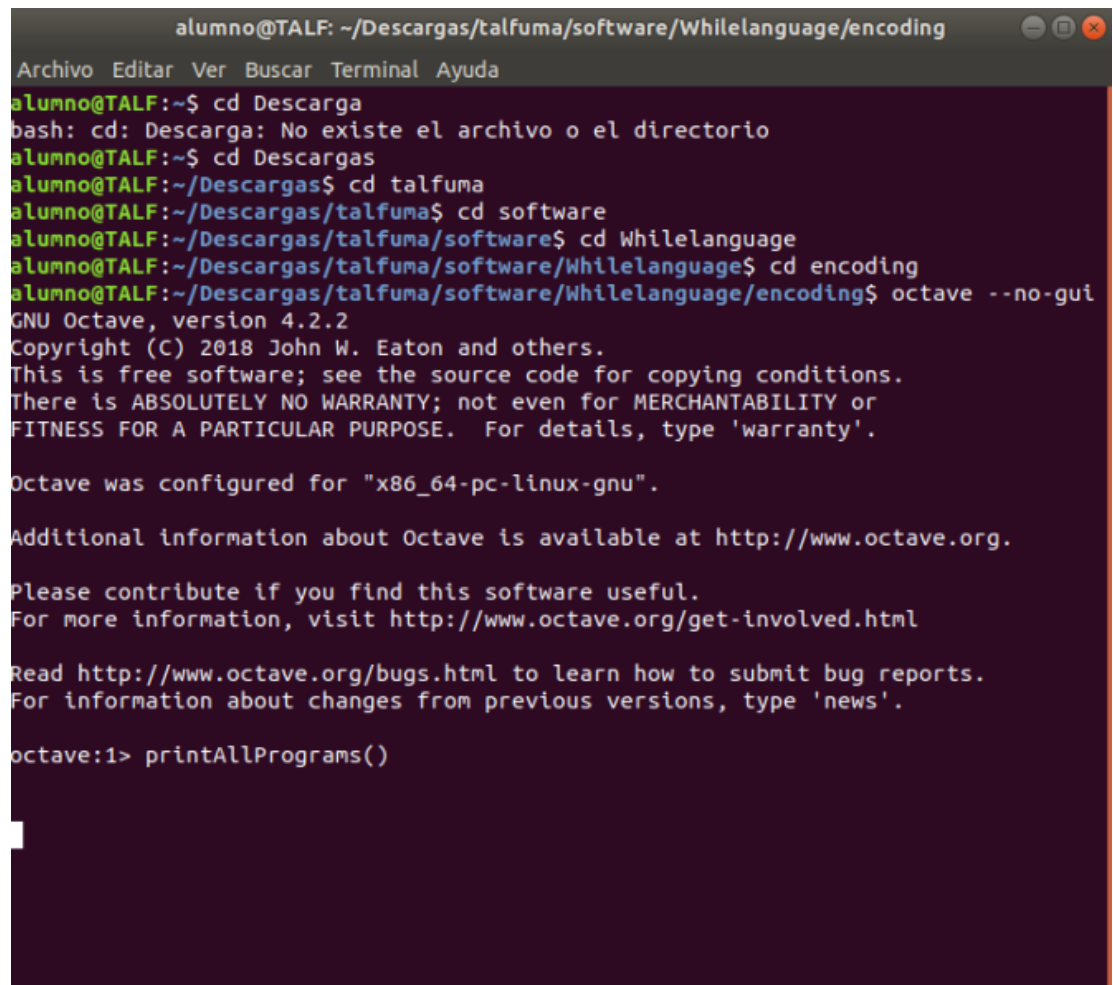
Read http://www.octave.org/bugs.html to learn how to submit bug reports.
For information about changes from previous versions, type 'news'.

octave:1> printAllVectors
_
```

Al no introducir argumentos, debería devolverme todos los programas pero no devuelve nada.

### 3. Scripts de Octave que enumeran todos los programas WHILE:

```
function program = printAllPrograms(N)
    i=0;
    while (i<N-1)
        N2WHILE(i)
        i = i + 1;
    endwhile
end
```



The screenshot shows a terminal window titled 'alumno@TALF: ~/Descargas/talfuma/software/Whilelanguage/encoding'. The user navigates through several directories: 'Descarga', 'Descargas', 'talfuma', 'software', 'Whilelanguage', and 'encoding'. Finally, they run 'octave --no-gui'. The Octave startup screen displays version 4.2.2, copyright information for John W. Eaton, and various links for more information. The user then enters the command 'printAllPrograms()' at the Octave prompt, but the output is not visible in the screenshot.

Al no introducir argumentos, debería devolverme todos los programas pero no devuelve nada.  
Posible solución con argumentos:

```
alumno@TALF: ~/Descargas/talfuma/software/Whilelanguage/encoding
Archivo Editar Ver Buscar Terminal Ayuda

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octave:1> printAllPrograms(12)
ans = (0, X1:=0)
ans = (1, X1:=0)
ans = (0, X1:=0; X1:=0)
ans = (2, X1:=0)
ans = (1, X1:=0; X1:=0)
ans = (0, X1:=X1)
ans = (3, X1:=0)
ans = (2, X1:=0; X1:=0)
ans = (1, X1:=X1)
ans = (0, X1:=0; X1:=0; X1:=0)
ans = (4, X1:=0)
octave:2>
```