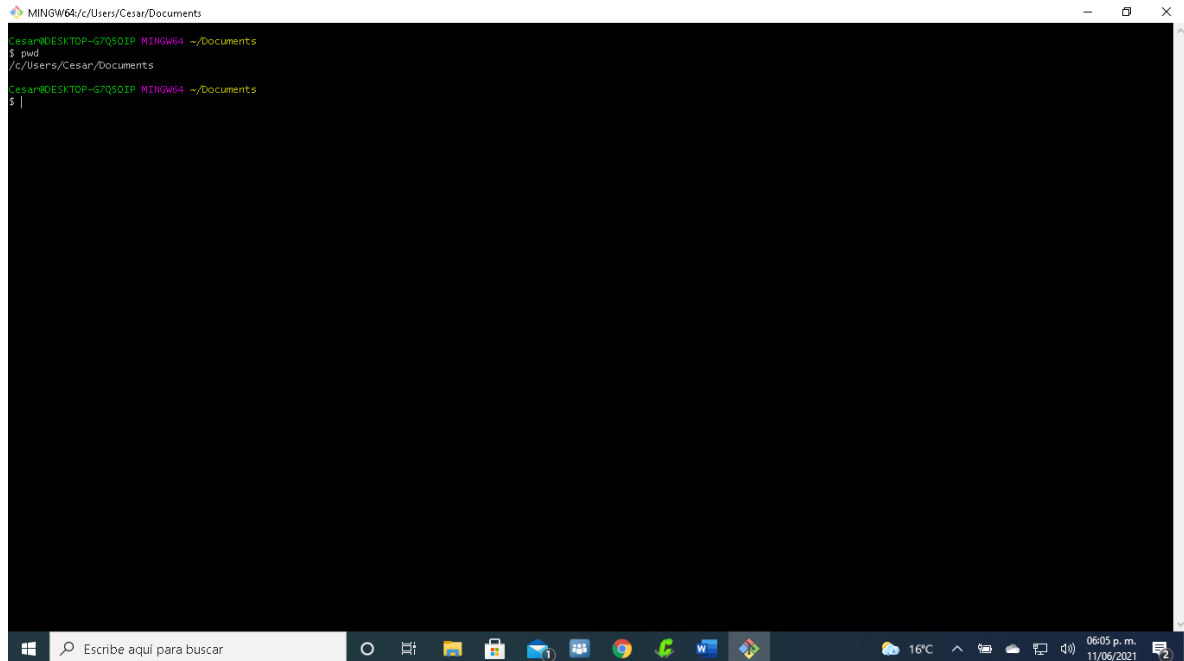


Tarea Firma

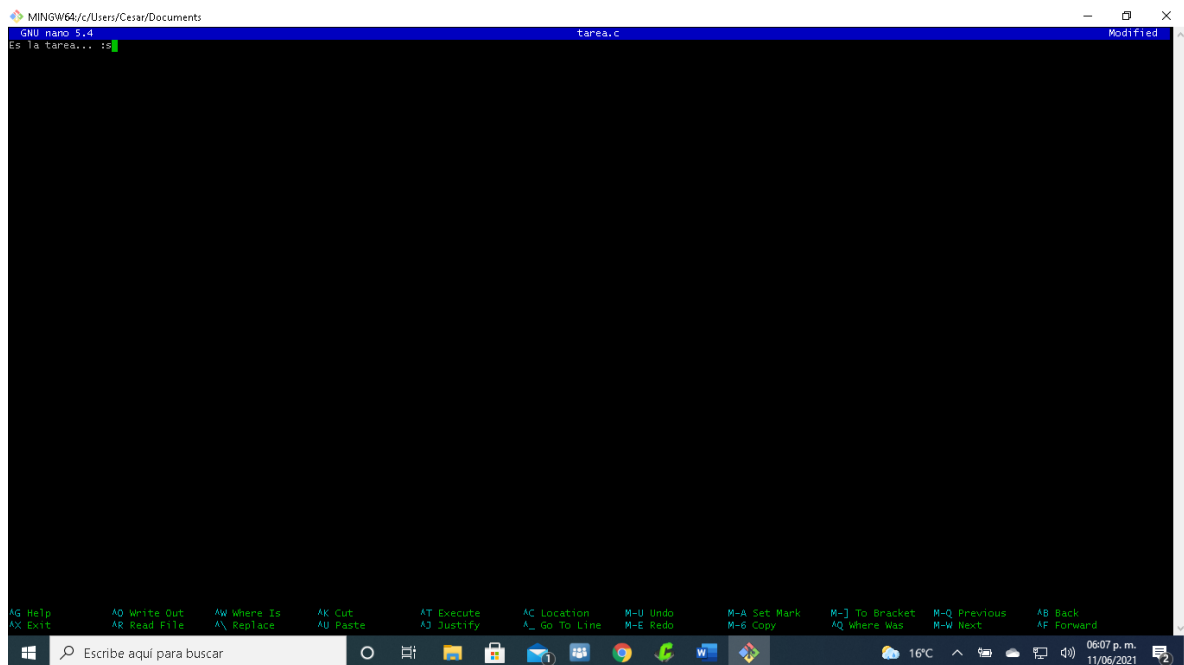
Se verifica en donde se abrió la consola.



A screenshot of a Windows command prompt window titled "MINGW64/c/Users/Cesar/Documents". The prompt shows the user is in the directory "c:\esar\DESKTOP-G7Q5OIP" and has run the "pwd" command, which returns "/c:/Users/Cesar/Documents". The Windows taskbar at the bottom shows the search bar, task view, and various application icons, with the system clock indicating 06:05 p.m. on 11/06/2021.

```
MINGW64/c/Users/Cesar/Documents
cesar@DESKTOP-G7Q5OIP MINGW64 ~/Documents
$ pwd
/c:/Users/Cesar/Documents
cesar@DESKTOP-G7Q5OIP MINGW64 ~/Documents
$
```

Se crea un archivo



A screenshot of a GNU nano 2.9.4 text editor window titled "tarea.c". The editor shows the first line of the file as "es la tarea... is". The nano editor's status bar at the bottom displays various keyboard shortcuts for editing and navigation. The Windows taskbar at the bottom is identical to the previous screenshot, showing the system clock at 06:07 p.m. on 11/06/2021.

```
GNU nano 2.9.4
es la tarea... is
```

```
MINGW64/c/Users/Cesar/Documents
C:\Users\Cesar\Documents
$ pwd
/c/Users/Cesar/Documents
C:\Users\Cesar\Documents
$ nano tarea.c
C:\Users\Cesar\Documents
$
```

The screenshot shows a Windows 10 desktop with a taskbar at the bottom. The taskbar includes icons for File Explorer, Microsoft Edge, Google Chrome, and several other applications. The system tray on the right shows the temperature as 16°C, the time as 06:08 p.m., and the date as 11/06/2021. The command prompt window is open, displaying the current directory as C:\Users\Cesar\Documents. The user has entered the command 'pwd' and received the output '/c/Users/Cesar/Documents'. Then, the user has entered the command 'nano tarea.c' and the prompt has returned to the shell.

Se revisa lo que hay en el archivo creado

```
MINGW64/c/Users/Cesar/Documents
C:\Users\Cesar\Documents
$ pwd
/c/Users/Cesar/Documents
C:\Users\Cesar\Documents
$ nano tarea.c
C:\Users\Cesar\Documents
$ cat tarea.c
es la tarea... is
C:\Users\Cesar\Documents
$
```

This screenshot shows the same command prompt window after the user has entered the command 'cat tarea.c'. The output of the command is 'es la tarea... is', which is the content of the file 'tarea.c' that was created in the previous step. The prompt has returned to the shell, and the user has entered a new line.

Se genera el hash

```
MINGW64/c/Users/Cesar/Documents
Cesar@DESKTOP-G7Q50IP MINGW64 ~/Documents
$ pwd
/c/Users/Cesar/Documents
Cesar@DESKTOP-G7Q50IP MINGW64 ~/Documents
$ nano tarea.c
Cesar@DESKTOP-G7Q50IP MINGW64 ~/Documents
$ cat tarea.c
Es la tarea... is
Cesar@DESKTOP-G7Q50IP MINGW64 ~/Documents
$ shasum -a 1 tarea.c
a884fd03f0d69f8556e46c6f8d868b8695376389 *tarea.c
Cesar@DESKTOP-G7Q50IP MINGW64 ~/Documents
$
```

245147744e6859b91935c181f8437b591d99cb13

Se guarda el Hash original

```
MINGW64/c/Users/Cesar/Documents
GNU nano 3.4 firma.txt Modified
Hash original -> a884fd03f0d69f8556e46c6f8d868b8695376389
```

```
MINGW64/c/Users/Cesar/Documents
cesar@DESKTOP-G7Q5OIP MINGW64 ~/Documents
$ pwd
/c/Users/Cesar/Documents
cesar@DESKTOP-G7Q5OIP MINGW64 ~/Documents
$ nano tarea.c
cesar@DESKTOP-G7Q5OIP MINGW64 ~/Documents
$ cat tarea.c
es la tarea... :s

cesar@DESKTOP-G7Q5OIP MINGW64 ~/Documents
$ shasum -a 1 tarea.c
a884fd03f0d69f8556e46c6f8d868b8695376389 *tarea.c
cesar@DESKTOP-G7Q5OIP MINGW64 ~/Documents
$ AC
cesar@DESKTOP-G7Q5OIP MINGW64 ~/Documents
$ nano firma.txt
cesar@DESKTOP-G7Q5OIP MINGW64 ~/Documents
$
cesar@DESKTOP-G7Q5OIP MINGW64 ~/Documents
$ nano firma.txt
cesar@DESKTOP-G7Q5OIP MINGW64 ~/Documents
$ cat firma.txt
Hash original -> a884fd03f0d69f8556e46c6f8d868b8695376389
cesar@DESKTOP-G7Q5OIP MINGW64 ~/Documents
$ |
```

Se le hace un cambio al archivo original

```
MINGW64/c/Users/Cesar/Documents
GNU nano 2.9.4 tarea.c Modified
es la tarea... :s
Ya le hice el cambio|

AG Help      AQ Write Out  AW Where Is  AK Cut       AT Execute   AC Location  M-U Undo    M-A Set Mark M-] To Bracket M-Q Previous  AB Back
AX Exit      AR Read File  AX Replace   AP Paste     AJ Justify   A_ Go To Line M-E Redo    M-6 Copy     AQ Where Was  M-W Next     AF Forward
```

Hash con el cambio

c8d551354af21d350f1073de5d787aaafe4fad8c

Se comparan los dos hash

```
MINGW64/c/Users/Cesar/Documents
GNU nano 5.4
Hash original -> 245147744e6859b91935c181f8437b591d99cb13
Hash nuevo -> c8d551354af21d350f1073de5d787aaafe4fad8c
Es totalmente diferente
Hash de regreso -> 245147744e6859b91935c181f8437b591d99cb13
Sha 256
Hash original -> fe51f6d49600117758ec4baadc11ea09db66ff3f4d0d61754f8e7380510d4f32
Modified
```

```
MINGW64/c/Users/Cesar/Documents
cesar@DESKTOP-G7Q5OIP MINGW64 ~/Documents
$ shasum -a 1 tarea.c
a884fd03f0d69f8556e46c6f8d868b8695376389 *tarea.c

cesar@DESKTOP-G7Q5OIP MINGW64 ~/Documents
$ AC

cesar@DESKTOP-G7Q5OIP MINGW64 ~/Documents
$ nano firma.txt

cesar@DESKTOP-G7Q5OIP MINGW64 ~/Documents
$ nano firma.txt

cesar@DESKTOP-G7Q5OIP MINGW64 ~/Documents
$ cat firma.txt
Hash original -> a884fd03f0d69f8556e46c6f8d868b8695376389

cesar@DESKTOP-G7Q5OIP MINGW64 ~/Documents
$ cat tarea.c
Es la tarea... is

cesar@DESKTOP-G7Q5OIP MINGW64 ~/Documents
$ nano tarea.c

cesar@DESKTOP-G7Q5OIP MINGW64 ~/Documents
$ cat tarea.c
Es la tarea... is

Ya le hice el cambio

cesar@DESKTOP-G7Q5OIP MINGW64 ~/Documents
$ shasum -a tarea.c
Value "tarea.c" invalid for option a (number expected)
Type shasum -h for help

cesar@DESKTOP-G7Q5OIP MINGW64 ~/Documents
$ shasum -a 1 tarea.c
c8d551354af21d350f1073de5d787aaafe4fad8c *tarea.c

cesar@DESKTOP-G7Q5OIP MINGW64 ~/Documents
$ nano firma.txt

cesar@DESKTOP-G7Q5OIP MINGW64 ~/Documents
$
```

Ahora se genera el un hash con sha256

fe51f6d49600117758ec4baadc11ea09db66ff3f4d0d61754f8e7380510d4f32

```
MINGW64/c/Users/Cesar/Documents
Ya le hice el cambio

cesar@DESKTOP-G7Q5OIP MINGW64 ~/Documents
$ shasum -a tarea.c
$ shasum -a 1 tarea.c
c8d551354af21d350f1073de5d787aaafe4fad8c *tarea.c

cesar@DESKTOP-G7Q5OIP MINGW64 ~/Documents
$ nano firma.txt

cesar@DESKTOP-G7Q5OIP MINGW64 ~/Documents
$ nano tarea.c

cesar@DESKTOP-G7Q5OIP MINGW64 ~/Documents
$ shasum -a 1 tarea.c
ff2ffe0dc44dc608bae2897b01bb17d4b9038e8 *tarea.c

cesar@DESKTOP-G7Q5OIP MINGW64 ~/Documents
$ nano tarea.c

cesar@DESKTOP-G7Q5OIP MINGW64 ~/Documents
$ shasum -a 1 tarea.c
245147744e6859b91935c181f8437b591d99cb13 *tarea.c

cesar@DESKTOP-G7Q5OIP MINGW64 ~/Documents
$ nano tarea.c

cesar@DESKTOP-G7Q5OIP MINGW64 ~/Documents
$ shasum -a 1 tarea.c
245147744e6859b91935c181f8437b591d99cb13 *tarea.c

cesar@DESKTOP-G7Q5OIP MINGW64 ~/Documents
$ shasum -a 256 tarea.c
fe51f6d49600117758ec4baadc11ea09db66ff3f4d0d61754f8e7380510d4f32 *tarea.c

cesar@DESKTOP-G7Q5OIP MINGW64 ~/Documents
$

cesar@DESKTOP-G7Q5OIP MINGW64 ~/Documents
$

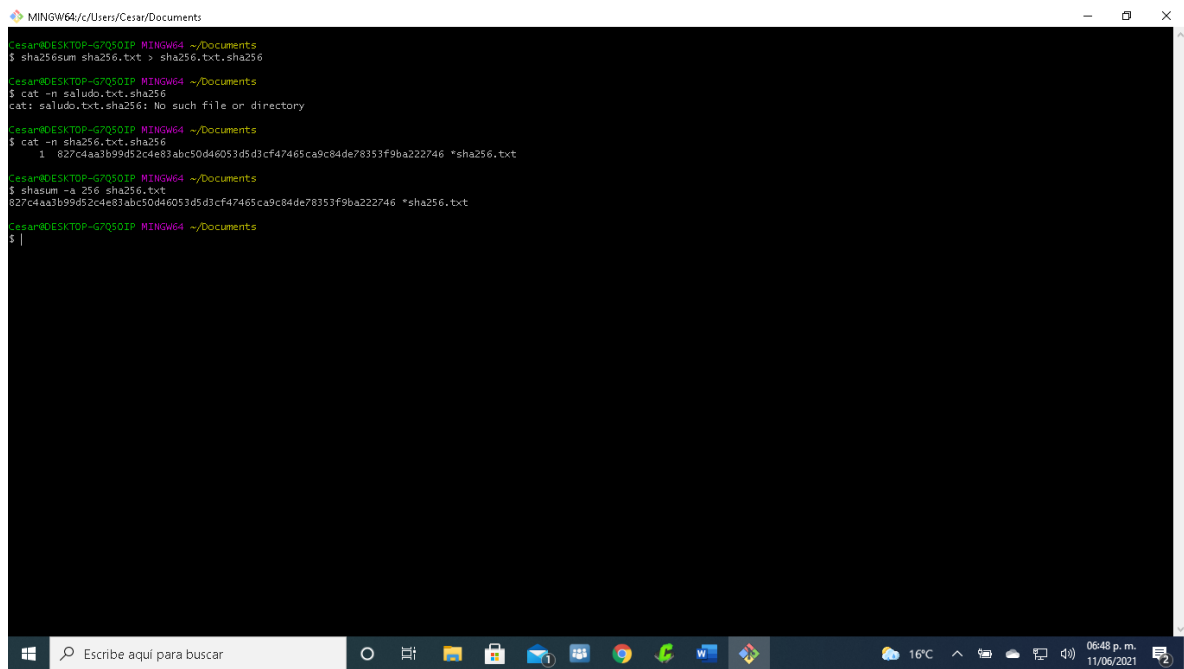
cesar@DESKTOP-G7Q5OIP MINGW64 ~/Documents
$

cesar@DESKTOP-G7Q5OIP MINGW64 ~/Documents
$ |
```

```
GNU nano 5.4 firma.txt Modified
Hash original -> 245147744e6859b91935c181f8437b591d99cb13
Hash nuevo -> c8d551354af21d350f1073de5d787aaafe4fad8c
Es totalmente diferente
Hash de regreso -> 245147744e6859b91935c181f8437b591d99cb13
Sha 256
Hash original -> fe51f6d49600117758ec4baadc11ea09db66ff3f4d0d61754f8e7380510d4f32

AG Help      AO Write Out  AW Where Is  AK Cut       AT Execute   AC Location  M-U Undo    M-A Set Mark M-] To Bracket M-Q Previous AB Back
AX Exit      AR Read File  AX Replace   AU Paste     AJ Justify   A_ Go To Line M-E Redo    M-6 Copy     AQ Where Was  R-W Next    AF Forward
```

Se comprueba la integridad.



```
MINGW64/c/Users/Cesar/Documents
Cesar@DESKTOP-G7Q5Q1P MINGW64 ~/Documents
$ sha256sum sha256.txt > sha256.txt.sha256

Cesar@DESKTOP-G7Q5Q1P MINGW64 ~/Documents
$ cat -n saludo.txt.sha256
cat: saludo.txt.sha256: No such file or directory

Cesar@DESKTOP-G7Q5Q1P MINGW64 ~/Documents
$ cat -n sha256.txt.sha256
  1  827c4aa3b99d52c4e83abc50d46053d5d3cf47465ca9c84de78353f9ba222746 *sha256.txt

Cesar@DESKTOP-G7Q5Q1P MINGW64 ~/Documents
$ sha256sum -a 256 sha256.txt
827c4aa3b99d52c4e83abc50d46053d5d3cf47465ca9c84de78353f9ba222746 *sha256.txt

Cesar@DESKTOP-G7Q5Q1P MINGW64 ~/Documents
$
```