

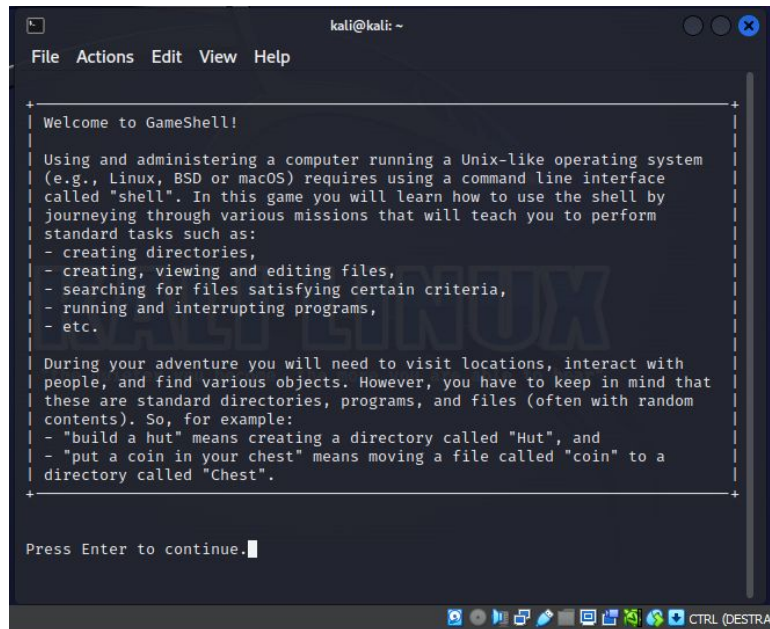


Progetto - Modulo 2

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GameShell

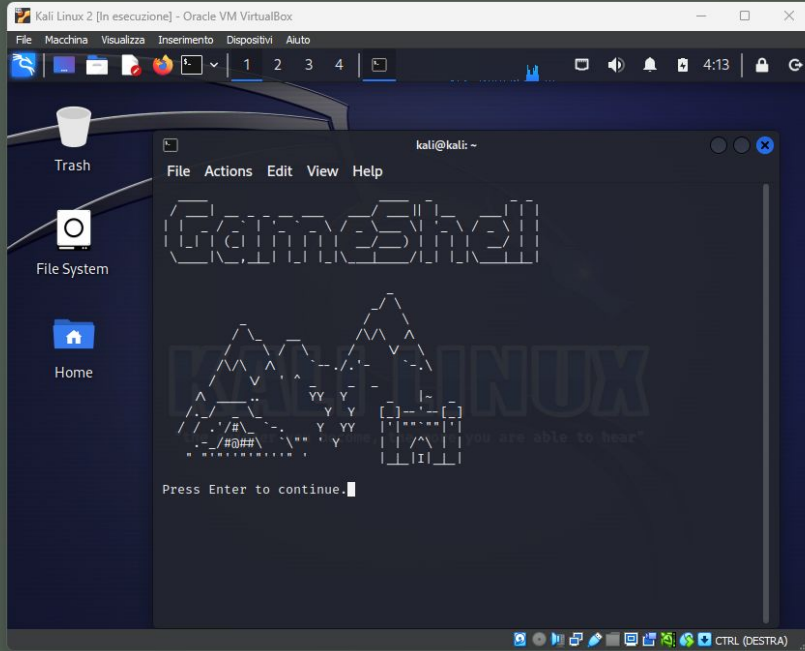


```
kali@kali: ~
File Actions Edit View Help

+-----+
| Welcome to GameShell!
|
| Using and administering a computer running a Unix-like operating system
| (e.g., Linux, BSD or macOS) requires using a command line interface
| called "shell". In this game you will learn how to use the shell by
| journeying through various missions that will teach you to perform
| standard tasks such as:
| - creating directories,
| - creating, viewing and editing files,
| - searching for files satisfying certain criteria,
| - running and interrupting programs,
| - etc.
|
| During your adventure you will need to visit locations, interact with
| people, and find various objects. However, you have to keep in mind that
| these are standard directories, programs, and files (often with random
| contents). So, for example:
| - "build a hut" means creating a directory called "Hut", and
| - "put a coin in your chest" means moving a file called "coin" to a
| directory called "Chest".
|
+-----+

Press Enter to continue.█
```

Pronto per iniziare il gioco!



Missione 1

```
kali@kali: ~  
File Actions Edit View Help  
+-----+  
| Mission goal  
| -----  
|  
| Go to the top of the main tower of the castle.  
|  
| Useful commands  
| -----  
|  
| cd LOCATION  
| Move to the given location.  
| Remark: ``cd`` is an abbreviation for "change directory".  
|  
| pwd  
| Show the path to your current location.  
| Remark: ``pwd`` is an abbreviation for "print working directory".  
|  
| ls  
| Show a list of locations that are currently accessible.  
| Remark: ``ls`` is an abbreviation of "list".  
|  
| gsh check  
| Check if the mission objective has been achieved.  
|  
| [Press space to continue, q to quit.] |  
+-----+
```

```
kali@kali: ~  
File Actions Edit View Help  
[mission 1] $ cd ..  
[mission 1] $ ls  
Cellar Great_hall Main_building Main_tower Observatory  
[mission 1] $ cd Main_tower  
[mission 1] $ ls  
First_floor  
[mission 1] $ cd First_floor  
[mission 1] $ ls  
Second_floor  
[mission 1] $ cd Second_floor  
[mission 1] $ ls  
Top_of_the_tower  
[mission 1] $ cd Top_of_the_tower  
[mission 1] $ gsh check  
  
Congratulations, mission 1 has been successfully completed!  
  
+-----+  
| Use the command  
| $ gsh help  
| to get the list of "gsh" commands.  
+-----+  
[mission 2] $
```

Missione 2

```
kali@kali: ~  
File Actions Edit View Help  
+-----+  
| Mission goal |  
|               |  
| Go the castle's cellar. |  
|               |  
| Secondary objective |  
|               |  
| Understand the difference between ``cd -`` and ``cd ..``. |  
|               |  
| Useful commands |  
|               |  
| "The quieter you become, the more you are able to hear"  
| cd -  
| Jump back to the location you were in prior to your last move.  
|  
| cd ..  
| Move to the parent directory (one step back along the path to your  
| current location).  
|  
| pwd  
| See the path to your current location.  
| [Press space to continue, q to quit.] |  
+-----+
```

```
kali@kali: ~  
File Actions Edit View Help  
[mission 2] $ cd -  
/home/kali/gameshell/World/Castle/Main_tower/First_floor/Second_floor  
[mission 2] $ cd -  
/home/kali/gameshell/World/Castle/Main_tower/First_floor/Second_floor/Top_of_  
the_tower  
[mission 2] $ cd ..  
[mission 2] $ cd ..  
[mission 2] $ cd ..  
[mission 2] $ cd ..  
[mission 2] $ ls  
Cellar Great_hall Main_building Main_tower Observatory  
[mission 2] $ cd Cellar  
[mission 2] $ gsh check  
  
Congratulations, mission 2 has been successfully completed!  
"The quieter you become, the more you are able to hear"  
  
+-----+  
| Use the command |  
| $ gsh help      |  
| to get the list of "gsh" commands. |  
+-----+  
  
[mission 3] $
```

Missione 3

```
kali@kali: ~  
File Actions Edit View Help  
+-----+  
| Mission goal |  
+-----+  
| Go back to the starting location and then go to the throne room using |  
| only two commands. |  
+-----+  
| Remark |  
+-----+  
| You may experiment with as many commands as you want, but |  
| to validate the mission the following conditions need to be met: |  
| - the second to last command takes you to the starting point, |  
| - the last command takes you directly to the throne room. |  
+-----+  
| "the quieter you become, the more you are able to hear" |  
+-----+  
| Useful commands |  
+-----+  
| cd |  
| Move back to the starting location. |  
+-----+  
| cd LOCATION1/LOCATION2/LOCATION3 |  
| Make several moves in one command. |  
+-----+  
| [Press space to continue, q to quit.] |  
+-----+
```

```
kali@kali: ~  
File Actions Edit View Help  
Congratulations, mission 3 has been successfully completed!  
+-----+  
| Well done!!! |  
+-----+  
| From now on, the current location will be shown |  
| just before the command prompt. |  
+-----+  
+-----+  
| Use the command |  
| $ gsh help |  
| to get the list of "gsh" commands. |  
+-----+  
+-----+  
| "the quieter you become, the more you are able to hear" |  
+-----+  
~/Castle/Main_building/Throne_room  
[mission 4] $  
::1 ip6-allnodes ip6-loopback localhost  
ff02::1 ip6-allrouters kali  
ff02::2 ip6-localhost kali.kali.com
```

Missione 4

```
kali@kali: ~  
File Actions Edit View Help  
~/Castle/Main_building/Throne_room  
[mission 4] $  
::1          ip6-allnodes    ip6-loopback    localhost  
ff02::1      ip6-allrouters  kali  
ff02::2      ip6-localhost   kali.kali.com  
~/Castle/Main_building/Throne_room  
[mission 4] $ gsh goal  
  
+-----+  
| Mission goal  
|-----|  
| Build a "Hut" in the forest, and then build a "Chest" in the hut.  
|-----|  
| Useful commands  
|-----|  
| mkdir DIRECTORY  
| Create a new directory inside the current directory.  
| Remark: ``mkdir`` is an abbreviation for "make directory".  
|-----|  
+-----+  
  
~/Castle/Main_building/Throne_room  
[mission 4] $
```

```
kali@kali: ~  
File Actions Edit View Help  
~/Forest  
[mission 4] $ cd Forest  
bash: cd: Forest: No such file or directory  
  
~/Forest  
[mission 4] $ cd Hut  
  
~/Forest/Hut  
[mission 4] $ mkdir Chest  
  
~/Forest/Hut  
[mission 4] $ gsh check  
  
Congratulations, mission 4 has been successfully completed!  
  
+-----+  
| Use the command  
| $ gsh help  
| to get the list of "gsh" commands.  
+-----+  
|  
+-----+  
  
~/Forest/Hut  
[mission 5] $
```


Missione 5

```
kali@kali: ~  
File Actions Edit View Help  
--+-----+--  
|  
~ /Forest/Hut  
[mission 5] $ gsh goal  
  
+-----+  
| Mission goal  
|  
| Go back to the cellar and get rid of all the spiders. Leave the bats  
| alone: they appear on the castle's coat of arms and are said to confer  
| luck.  
|  
| Useful commands  
|  
| rm FILE1 FILE2 ... FILEn  
| Delete the files (permanently), more you are able to hear"  
| Remark: ``rm`` is an abbreviation for "remove".  
+-----+  
  
~ /Forest/Hut  
[mission 5] $
```

```
kali@kali: ~  
File Actions Edit View Help  
~/Castle  
[mission 5] $ cd Cellar  
  
~/Castle/Cellar  
[mission 5] $ ls  
barrel_of_apples  bat_1  bat_2  spider_1  spider_2  spider_3  
  
~/Castle/Cellar  
[mission 5] $ rm spider_1 spider_2 spider_3  
  
~/Castle/Cellar  
[mission 5] $ gsh check  
  
Congratulations, mission 5 has been successfully completed!  
  
+-----+  
| Use the command  
| $ gsh help  
| to get the list of "gsh" commands.  
+-----+  
|  
  
~/Castle/Cellar  
[mission 6] $
```


Missione 6

```
kali@kali: ~  
File Actions Edit View Help  
~/Castle/Cellar  
[mission 6] $ gsh goal  
  
+-----+  
| Mission goal  
|-----|  
|  
| Collect all the coins that you can find in the garden in front of the  
| castle, and put them in your chest in your hut in the forest.  
|  
|  
| Useful commands  
|-----|  
| mv FILE1 FILE2 ... FILEn DIRECTORY  
| Move the files to the directory.  
| Remark: ``mv`` is an abbreviation of "move".  
|  
| ~  
| The "~" symbol is an abbreviation for the initial directory.  
| Example: wherever you are, ``~/Tavern`` denotes the directory (or file)  
| "Tavern" in the initial directory.  
|-----+  
  
~/Castle/Cellar  
[mission 6] $
```

```
kali@kali: ~  
File Actions Edit View Help  
[mission 6] $ mv coin_1 coin_2 coin_3 Chest  
mv: target 'Chest': No such file or directory  
  
~/Garden  
[mission 6] $ mv coin_1 coin_2 coin_3 Garden Forest  
mv: target 'Forest': No such file or directory  
  
~/Garden  
[mission 6] $ mv coin_1 coin_2 coin_3 ~/Forest/Hut/Chest  
  
~/Garden  
[mission 6] $ gsh check  
  
Congratulations, mission 6 has been successfully completed!  
  
+-----+  
| Use the command  
| $ gsh help  
| to get the list of "gsh" commands.  
|-----+  
  
~/Garden  
[mission 7] $
```

Missione 7

```
kali@kali: ~  
File Actions Edit View Help  
+-----+  
| Mission goal  
| -----  
| Collect all the coins hidden in the garden in front of the castle, and  
| put them in your chest (in your hut in the forest).  
|  
| Secondary objective  
| -----  
| Learn how to use the "Tab" key to go faster.  
|  
| Useful commands  
| -----  
| ls -A  
| List all the files of the current directory, including hidden files. (A  
| file is "hidden" when its name starts with a dot.)  
|  
| Tab  
| The tabulation key "completes" the name of a file or directory once you  
| have typed the beginning of its name. This only works  
| if there is only one possible completion.  
| [Press space to continue, q to quit.]
```

```
kali@kali: ~  
File Actions Edit View Help  
[mission 7] $ mv .  
./ .. / .20525_coin_3 .29575_coin_2 .62546_coin_1  
  
~/Garden  
[mission 7] $ mv .  
./ .. / .20525_coin_3 .29575_coin_2 .62546_coin_1  
  
~/Garden  
[mission 7] $ mv .20525_coin_3 .29575_coin_2 .62546_coin_1 ~/Forest/Hut/Chest  
  
~/Garden  
[mission 7] $ gsh check  
  
Congratulations, mission 7 has been successfully completed!  
  
+-----+  
| Use the command  
| $ gsh help  
| to get the list of "gsh" commands. | you are able to hear  
+-----+  
|  
  
~/Garden  
[mission 8] $
```

Missione 8

```
kali@kali: ~  
File Actions Edit View Help  
  
+-----+  
| Mission goal |  
+-----+  
|  
| Get rid of all the spiders that are crawling in the cellar. Again, do  
| not do not disturb the bats. |  
|  
| Shell patterns |  
+-----+  
|  
| *  
| The "*" character stands in for any sequence of characters  
| (including an empty sequence). |  
|  
| ?  
| The "?" character stands in for any single character. |  
|  
| Those wildcards can be used to denote lists of existing files /  
| directories in the current working directory. |  
|  
| For example: if the current folder contains  
| file-1 Folder-1 file-14 potato  
| then  
| *      → file-1 Folder-1 file-14 potato  
| [Press space to continue, q to quit.] |  
+-----+
```

```
kali@kali: ~  
File Actions Edit View Help  
rm: cannot remove '*i': No such file or directory  
  
~/Castle/Cellar  
[mission 8] $ rm *i*  
  
~/Castle/Cellar  
[mission 8] $ ls  
14570_bat_3 2520_bat_1 9957_bat_5  
21612_bat_4 30345_bat_2 barrel_of_apples  
  
~/Castle/Cellar  
[mission 8] $ gsh check  
  
Congratulations, mission 8 has been successfully completed!  
  
+-----+  
| Use the command |  
| $ gsh help      |  
| to get the list of "gsh" commands. |  
+-----+  
  
~/Castle/Cellar  
[mission 9] $
```

Missione 9

```
kali@kali: ~  
File Actions Edit View Help  
+-----+  
| Mission goal  
| -----  
|  
| The spiders are getting clever: they found a way to hide.  
| Get rid of all the spiders that are hiding in the cellar without  
| disturbing the bats.  
|  
| Shell patterns  
| -----  
|  
| *  
| The "*" character stands in for any sequence of characters (including an  
| empty sequence).  
|  
| ?  
| The "?" character stands in for any single character.  
|  
| "quieter you become, the more you are able to hear"  
| Remark  
| -----  
|  
| The wildcards "*" and "?" don't see hidden files, you need to add an  
| explicit dot at the start of the pattern.  
| [Press space to continue, q to quit.]
```

```
kali@kali: ~  
File Actions Edit View Help  
[mission 9] $ gsh check  
  
Congratulations, mission 9 has been successfully completed!  
  
+-----+  
| Congratulations !  
|  
| From now on, the ``ls`` command will  
| automatically show a "/" character at the end  
| of directories.  
|  
+-----+  
  
+-----+  
| Use the command  
| $ gsh help  
| to get the list of "gsh" commands.  
|  
+-----+  
  
~/Castle/Cellar  
[mission 10] $
```

Missione 10

```
kali@kali: ~  
File Actions Edit View Help  
--+-----+--  
|  
|  
~/Castle/Cellar  
[mission 10] $ gsh goal  
  
+-----+  
| Mission goal |  
|               |  
| You have taken a fancy to the four standards in the great hall of the |  
| castle. As stealing them would not go unnoticed, put a copy (same name, |  
| same content) of each in your chest. |  
|               |  
| Useful commands |  
|               |  
| cp FILE DIRNAME |  
| Copy the file to the directory. more you are able to hear" |  
| Remark: ``cp`` is an abbreviation of "copy". |  
+-----+  
  
~/Castle/Cellar  
[mission 10] $
```

```
kali@kali: ~  
File Actions Edit View Help  
~/Castle/Great_hall  
[mission 10] $ cp standard_1 standard_2 standard_3 standard_4 ~/Forest/Hut/Ch  
es  
cp: target '/home/kali/gameshell/World/Forest/Hut/Ches': No such file or dire  
ctory  
  
~/Castle/Great_hall  
[mission 10] $ cp standard_1 standard_2 standard_3 standard_4 ~/Forest/Hut/Ch  
est  
  
~/Castle/Great_hall  
[mission 10] $ gsh check  
  
Congratulations, mission 10 has been successfully completed!  
  
+-----+  
| Use the command |  
| $ gsh help |  
| to get the list of "gsh" commands. | you are able to hear" |  
+-----+  
|  
|  
~/Castle/Great_hall  
[mission 11] $
```


Missione 11

```
kali@kali: ~  
File Actions Edit View Help  
  
Mission goal  
=====
```

The tapestries in the castle's great hall are also particularly beautiful. Put a copy of each in your chest.

```
Useful commands  
=====
```

cp FILE1 FILE2 ... FILEn DIRNAME
Copy the files to the directory.
Remark: "cp" is an abbreviation of "copy".

```
Shell patterns  
=====
```

*quieter you become, the more you are able to hear"
The "*" character stands in for any sequence of characters (including an empty sequence).

?
The "?" character stands in for any single character.

[Press space to continue, q to quit.]

```
kali@kali: ~  
File Actions Edit View Help  
  
[mission 11] $ ls  
12026_suit_of_armour      3086_tapestry_09      54663_tapestry_02      standard_3  
16504_tapestry_06         32824_tapestry_07      60060_tapestry_04      standard_4  
25975_decorative_shield   40411_tapestry_10      62684_stag_head  
29151_tapestry_03         43689_tapestry_05      standard_1  
3050_tapestry_01          47536_tapestry_08      standard_2  
  
~/Castle/Great_hall  
[mission 11] $ cp *tapestry* ~/Forest/Hut/Chest  
  
~/Castle/Great_hall  
[mission 11] $ gsh check  
  
Congratulations, mission 11 has been successfully completed!  
  
+-----+  
| Use the command |  
| $ gsh help      |  
| to get the list of "gsh" commands. |  
+-----+  
|                 |  
+-----+  
|                 |  
+-----+  
  
~/Castle/Great_hall  
[mission 12] $
```

Missione 12

```
kali@kali: ~  
File Actions Edit View Help  
+-----+  
| Mission goal |  
+-----+  
| While wandering around the first floor of the main tower, some  
| magnificent paintings catch your eye. Add a copy of the oldest one to  
| your chest. |  
+-----+  
| Secondary objectives |  
+-----+  
| Take a moment to admire the sheer beauty of the paintings. |  
+-----+  
| Useful commands |  
+-----+  
| ls -l |  
| Print the list of files of the current directory, with additional  
| information including last modification date. |  
+-----+  
| cat FILE |  
| Display the contents of the file. |  
+-----+  
[Press space to continue, q to quit.]
```

```
kali@kali: ~  
File Actions Edit View Help  
~/Castle/Main_tower/First_floor  
[mission 12] $ cp painting_rEKIRKFQ /Forest/Hut/Chest  
cp: cannot create regular file '/Forest/Hut/Chest': No such file or directory  
  
~/Castle/Main_tower/First_floor  
[mission 12] $ cp painting_rEKIRKFQ ~/Forest/Hut/Chest  
  
~/Castle/Main_tower/First_floor  
[mission 12] $ gsh check  
  
Congratulations, mission 12 has been successfully completed!  
  
The command 'cal' is required for mission misc/01_cal_nostradamus/init.sh.  
(Debian / Ubuntu: install package 'bsdmainutils')  
Error: mission 13 is cancelled because some dependencies are not met.  
  
+-----+  
| Use the command |  
| $ gsh help |  
| to get the list of "gsh" commands. |  
+-----+  
| |  
+-----+  
  
~/Castle/Main_tower/First_floor  
[mission 14] $
```


Missione 13

La Missione 13 non era
disponibile a causa di un errore

```
kali@kali: ~  
File Actions Edit View Help  
  
The command 'cal' is required for mission misc/01_cal_nostradamus/init.sh.  
(Debian / Ubuntu: install package 'bsdmainutils')  
Error: mission 13 is cancelled because some dependencies are not met.  
  
+-----+  
| Use the command  
| $ gsh help  
| to get the list of "gsh" commands.  
+-----+  
  
~/Castle/Main_tower/First_floor  
[mission 14] $ gs goal  
GPL Ghostscript 10.01.2 (2023-06-21)  
Copyright (C) 2023 Artifex Software, Inc. All rights reserved.  
This software is supplied under the GNU AGPLv3 and comes with NO WARRANTY:  
see the file COPYING for details.  
Error: /undefinedfilename in (goal)  
Operand stack:  
  
Execution stack:  
%interp_exit .runexec2 --nostringval-- --nostringval-- --nostringv  
al-- 2 %stopped_push --nostringval-- --nostringval-- --nostringval-  
- false 1 %stopped_push
```

Missione 14

```
kali@kali: ~  
File Actions Edit View Help  
[mission 14] $ gsh goal  
  
+-----+  
| Mission goal |  
+-----+  
|  
| Checking for hidden files is taking too long!  
|  
| Create an alias "la" to run the command ``ls -A`` in order to list all  
| files, including hidden ones, with only 2 letters.  
|  
| Define the synonym  
|  
| la  
|  
| for the command  
|  
| ls -A  
|  
| and check that it works as expected.  
|  
| How fortunate, there is a nice rock hidden just where you are.  
|  
|  
| Useful commands  
|  
+-----+
```

```
kali@kali: ~  
File Actions Edit View Help  
~/home/kali/gameshell/World/Castle/Main_tower/First_floor  
~/Castle/Main_tower/First_floor  
[mission 14] $ alias la='ls -A'  
~/Castle/Main_tower/First_floor  
[mission 14] $ la  
.nice_rock      painting_RmHmuqeh  painting_rEKIRKFQ  
Second_floor/  painting_gDYqMBqJ  
~/Castle/Main_tower/First_floor  
[mission 14] $ gsh check  
  
Congratulations, mission 14 has been successfully completed!  
  
+-----+  
| Use the command  
| $ gsh help  
| to get the list of "gsh" commands.  
+-----+  
|  
~/Castle/Main_tower/First_floor  
[mission 15] $ █
```

Missione 15

```
kali@kali: ~  
File Actions Edit View Help  
  
Mission goal  
=====
```

Create a file named "journal.txt" in your chest and write a short message in it. You can use this file to record your notes and solutions for the upcoming missions.

```
Details  
=====
```

``nano`` is a command-line text editor. You can use it whenever you need to edit a file from the shell.

```
Useful commands  
=====
```

nano FILE
Edit the file from the shell.
(If the file does not exist, it will be created.)

Keybindings are listed at the bottom of the

[Press space to continue, q to quit.]

```
~/Forest/Hut/Chest  
[mission 15] $ nano journal.txt
```

```
~/Forest/Hut/Chest  
[mission 15] $ gsh check
```

Congratulations, mission 15 has been successfully completed!

```
---+-----+---  
| Use the command  
| $ gsh help  
| to get the list of "gsh" commands.  
---+-----+---
```

```
~/Forest/Hut/Chest  
[mission 16] $
```

Missione 16



```
kali@kali: ~  
File Actions Edit View Help  
  
Mission goal  
Create an alias "journal" in order to easily edit  
your journal file wherever you are.  
  
Details  
  
To edit the journal file with ``nano`` from,  
for example, the cellar or the throne room,  
you need to give the full path to the file:  
"~/Forest/.../journal.txt".  
  
To avoid typing this long command each time, you  
can create an alias just like  
  
alias la='ls -a'  
  
Useful commands  
[Press space to continue, q to quit.]
```

La mia partita si ferma alla
Missione 16, durante le festività
proverò a proseguire con il gioco.