monica@kali: ~

```
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.

gsh reset
Restart the mission from the beginning.


Remarks
```

monica@kali: ~

File Actions Edit View Help

```
[mission 1] $ pwd
/home/monica/gameshell/World
[mission 1] $ ls
Castle  Forest  Garden  Mountain  Stall
[mission 1] $ cd Castle/
[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] $ ls
[mission 1] $ gsh check

Congratulations, mission 1 has been successfully completed!
```

monica@kali: ~

```
[mission 2] $ gsh goal

 ,_____________________________________________________________________________.
 (_\                                                                           \
    |  Mission goal                                                            |
    |  ============                                                            |
    |                                                                          |
    |  Go the castle's cellar.                                                 |
    |                                                                          |
    |  Secondary objective                                                     |
    |  --------------------                                                    |
    |                                                                          |
    |  Understand the difference between ``cd -`` and ``cd ..``.               |
    |                                                                          |
    |  Useful commands                                                         |
    |  ================                                                        |
    |                                                                          |
    |  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.                                  |
    |                                                                          |
    _|                                                                          |
 (_/___________________________________________________________________________(*)___/
                                                                                \\
                                                                                 ))
                                                                                 ^
```

monica@kali: ~

File Actions Edit View Help

```
 \_/\/ `————————————————————————————————————————————————————————————' \/\_/

[mission 2] $ pwd
/home/monica/gameshell/World/Castle/Main_tower/First_floor/Second_floor/Top_of_the_tower
[mission 2] $ cd ..
[mission 2] $ pwd
/home/monica/gameshell/World/Castle/Main_tower/First_floor/Second_floor
[mission 2] $ cd -
/home/monica/gameshell/World/Castle/Main_tower/First_floor/Second_floor/Top_of_the_tower
[mission 2] $ cd -
/home/monica/gameshell/World/Castle/Main_tower/First_floor/Second_floor
[mission 2] $ cd -
/home/monica/gameshell/World/Castle/Main_tower/First_floor/Second_floor/Top_of_the_tower
[mission 2] $ cd -
/home/monica/gameshell/World/Castle/Main_tower/First_floor/Second_floor
[mission 2] $ cd ..
[mission 2] $ cd ..
[mission 2] $ cd ..
[mission 2] $ pwd
/home/monica/gameshell/World/Castle
[mission 2] $ ls
Cellar  Great_hall  Main_building  Main_tower  Observatory
[mission 2] $ cd Cellar/
[mission 2] $ ls
barrel_of_apples
[mission 2] $ gsh check

Congratulations, mission 2 has been successfully completed!
```

monica@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.
|       |
|       |
|       |   Useful commands
|       |   ═══════════════
|       |
|       |   cd
|       |   Move back to the starting location.
|       |
|       |   cd LOCATION1/LOCATION2/LOCATION3
|       |   Make several moves in one command.
|       |
|       |
|       |   Remark
|       |   ──────
|       |
|       |   UPPERCASE words appearing in commands are meta-variables: you need to replace them by appropriate (string) values.
|       |
|       |                                                                                                                  /
|       |_________________________________________________________________________________________________________________.'
\       |
```

monica@kali: ~

File Actions Edit View Help

```
    (                                                                  (
     )  UPPERCASE words appearing in commands are meta-variables: you   )
    (   need to replace them by appropriate (string) values.           (
     )                                                                  )
    (                                                                  (
    /\''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''\
(0)═══)>◇◇◇◇◇◇◇◇◇◇◇◇◇◇◇◇◇◇◇◇◇◇◇◇◇◇◇◇◇◇◇◇◇◇◇◇◇◇◇◇◇◇◇◇◇◇◇◇◇◇◇◇◇◇◇◇◇◇<)═(0)
    \/____________________________________________________________________/

[mission 3] $ pwd
/home/monica/gameshell/World/Castle/Main_building/Throne_room
[mission 3] $ cd /home/monica/gameshell

You left GameShell's directory structure. Use
    $ cd
to go back to the GameShell's starting directory.

[mission 3] $ cd
[mission 3] $ cd /home/monica/gameshell/World/Castle/Main_building/Throne_room/
[mission 3] $ gsh check

Congratulations, mission 3 has been successfully completed!


                _.--.          Well done!!!
            _.-'_:-'||
        _.-'_.-::::'||         From now on, the current location will be shown just before
   _.-:'_.-::::::'  ||         the command prompt.
 .'`-.-:::::::'     ||
/.'`;|:::::::'      ||_
```

```
/home/monica                                                    monica@kali: ~
File  Actions  Edit  View  Help
--+-----------------------------------+--
  | Use the command                   |
  | $ gsh help                        |
  | to get the list of "gsh" commands. |
--+-----------------------------------+--
  |                                   |

~
[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".        |
    __)_____________________________________________________________________|
()=(_____________________________________________________________________)=()
    '|                                                                   |'


~
[mission 4] $
```

monica@kali: ~

File Actions Edit View Help

```
~/Castle/Main_building/Throne_room
[mission 4] $ cd ..

~/Castle/Main_building
[mission 4] $ cd ..

~/Castle
[mission 4] $ ls
Cellar  Great_hall  Main_building  Main_tower  Observatory

~/Castle
[mission 4] $ cd ..

~
[mission 4] $ ls
Castle  Forest  Garden  Mountain  Stall

~
[mission 4] $ cd Forest/

~/Forest
[mission 4] $ mkdir Hut

~/Forest
[mission 4] $ ls
Hut

~/Forest
[mission 4] $ cd Hut/

~/Forest/Hut
[mission 4] $ mkdir Chest

~/Forest/Hut
[mission 4] $ ls
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.   |
--+--------------------------------------+--
  |                                      |


~
[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).                                                                   |      |
|      |   Remark: ``rm`` is an abbreviation for "remove".                                                   |      |
|      |                                                                                                     |      |
 \     |_____________________________________________________________________________________________________|     /
  \___/                                                                                                       \___/


~
[mission 5] $
```

monica@kali: ~

File Actions Edit View Help

```
[mission 5] $ cd /home/monica/gameshell/World/Castle/Main_building/Throne_room/

~/Castle/Main_building/Throne_room
[mission 5] $ cd ..

~/Castle/Main_building
[mission 5] $ cd ..

~/Castle
[mission 5] $ cd ..

~
[mission 5] $ ls
Castle  Forest  Garden  Mountain  Stall

~
[mission 5] $ cd Castle/

~/Castle
[mission 5] $ ls
Cellar  Great_hall  Main_building  Main_tower  Observatory

~/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] $ ls
barrel_of_apples  bat_1  bat_2

~/Castle/Cellar
[mission 5] $ gsh check

Congratulations, mission 5 has been successfully completed!
```

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


~
[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.             |.
     |  ______________________________________________________________________________________________________________________|___
     | /                                                                                                                      /.
     \_/______________________________________________________________________________________________________________________/.


~
[mission 6] $
```

monica@kali: ~

File Actions Edit View Help

```
~
[mission 6] $ ls
Castle  Forest  Garden  Mountain  Stall

~
[mission 6] $ cd Garden

~/Garden
[mission 6] $ ls
Flower_garden  Maze  Shed  coin_1  coin_2  coin_3

~/Garden
[mission 6] $ mv coin_1 coin_2 coin_3 ~/Chest
mv: target '/home/monica/gameshell/World/Chest': No such file or directory

~/Garden
[mission 6] $ mv coin_1 coin_2 coin_3 ~/Forest/Hut/Chest/

~/Garden
[mission 6] $ ls
Flower_garden  Maze  Shed

~/Garden
[mission 6] $ cd ..

~
[mission 6] $ ls
Castle  Forest  Garden  Mountain  Stall

~
[mission 6] $ cd Forest/Hut/Chest/

~/Forest/Hut/Chest
[mission 6] $ ls
coin_1  coin_2  coin_3

~/Forest/Hut/Chest
[mission 6] $ gsh check

Congratulations, mission 6 has been successfully completed!
```

monica@kali: ~

```
[mission 7] $ gsh goal

  ____________________________________________________________________________________________________
  /                                                                                                  \
(0)═══)>◇◇◇
```

monica@kali: ~

File Actions Edit View Help

```
bash: cd: Garden: No such file or directory

~/Forest/Hut/Chest
[mission 7] $ cd ..

~/Forest/Hut
[mission 7] $ cd ..

~/Forest
[mission 7] $ cd ..

~
[mission 7] $ ls
Castle  Forest  Garden  Mountain  Stall

~
[mission 7] $ cd Garden/

~/Garden
[mission 7] $ ls
Flower_garden  Maze  Shed

~/Garden
[mission 7] $ ls -A
.12798_coin_3  .1343_coin_1  .2470_coin_2  Flower_garden  Maze  Shed

~/Garden
[mission 7] $ mv .12798_coin_3 .1343_coin_1 .2470_coin_2 ~/Forest/Hut/Chest/

~/Garden
[mission 7] $ ls
Flower_garden  Maze  Shed

~/Garden
[mission 7] $ ls -A
Flower_garden  Maze  Shed

~/Garden
[mission 7] $ cd Forest/Hut/Chest/
bash: cd: Forest/Hut/Chest/: No such file or directory
```

monica@kali: ~

File Actions Edit View Help

```
bash: cd: Forest/Hut/Chest/: No such file or directory

~/Garden
[mission 7] $ ls
Flower_garden  Maze  Shed

~/Garden
[mission 7] $ cd ..

~
[mission 7] $ ls
Castle  Forest  Garden  Mountain  Stall

~
[mission 7] $ cd Forest/Hut/Chest

~/Forest/Hut/Chest
[mission 7] $ ls
coin_1  coin_2  coin_3

~/Forest/Hut/Chest
[mission 7] $ ls -A
.12798_coin_3  .1343_coin_1  .2470_coin_2  coin_1  coin_2  coin_3

~/Forest/Hut/Chest
[mission 7] $ gsh check

Congratulations, mission 7 has been successfully completed!


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


~/Forest/Hut/Chest
[mission 8] $ gsh goal
```

monica@kali: ~

```
 __ ^ __                                                                                                  __ ^ __
( ___ )------------------------------------------------------------------------------------------------( ___ )
 |   |                                                                                                  |   |
 | / |  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                                                   | \ |
 | / |      *1    ---> file-1 Folder-1                                                                  | \ |
 | / |      *o*   ---> Folder-1 potato                                                                  | \ |
 | / |      x*    ---> error, no matching file                                                          | \ |
 | / |      *-?   ---> file-1 Folder-1                                                                  | \ |
 | / |      *-??  ---> file-14                                                                          | \ |
 |___|                                                                                                  |___|
(_____)------------------------------------------------------------------------------------------------(_____)
```

monica@kali: ~

File Actions Edit View Help

```
~/Castle/Cellar
[mission 8] $ ls
10004_spider_7   1779_spider_37   2447_spider_30   30446_spider_15  504_spider_27
1032_spider_21   18401_spider_9   25080_spider_1   30720_bat_3      5370_spider_23
10742_spider_34  19776_spider_45  25433_spider_17  30838_spider_32  6759_spider_12
12674_spider_29  20124_spider_41  25661_spider_16  31099_bat_1      7194_spider_13
12923_spider_35  21282_spider_2   26884_spider_19  31195_spider_14  7792_spider_36
13711_spider_49  21581_spider_47  27739_bat_2      31415_spider_24  7947_spider_33
1429_spider_28   21661_spider_6   27801_spider_25  31432_bat_4      8752_spider_20
15044_spider_39  22485_spider_4   28502_spider_44  32284_spider_46  933_spider_22
15130_spider_18  23016_spider_10  28794_spider_3   32526_spider_38  9442_spider_50
16355_spider_43  23150_spider_11  28988_spider_40  32694_bat_5      9746_spider_5
16520_spider_26  23941_spider_8   29202_spider_48  3945_spider_42   9768_spider_31

~/Castle/Cellar
[mission 8] $ rm *_??

~/Castle/Cellar
[mission 8] $ ls
10004_spider_7  21661_spider_6  25080_spider_1  30720_bat_3  32694_bat_5
18401_spider_9  22485_spider_4  27739_bat_2     31099_bat_1  9746_spider_5
21282_spider_2  23941_spider_8  28794_spider_3  31432_bat_4

~/Castle/Cellar
[mission 8] $ rm *6

~/Castle/Cellar
[mission 8] $ rm *7

~/Castle/Cellar
[mission 8] $ rm *8

~/Castle/Cellar
[mission 8] $ rm *9

~/Castle/Cellar
[mission 8] $ ls
21282_spider_2  25080_spider_1  28794_spider_3  31099_bat_1  32694_bat_5
22485_spider_4  27739_bat_2     30720_bat_3     31432_bat_4  9746_spider_5

~/Castle/Cellar
```

monica@kali: ~

File Actions Edit View Help

```
[mission 8] $ rm *8

~/Castle/Cellar
[mission 8] $ rm *9

~/Castle/Cellar
[mission 8] $ ls
21282_spider_2  25080_spider_1  28794_spider_3  31099_bat_1  32694_bat_5
22485_spider_4  27739_bat_2     30720_bat_3     31432_bat_4  9746_spider_5

~/Castle/Cellar
[mission 8] $ rm 21282_spider_2 25080_spider_1 28794_spider_3 22485_spider_4 9746_spider_5

~/Castle/Cellar
[mission 8] $ ls
27739_bat_2  30720_bat_3  31099_bat_1  31432_bat_4  32694_bat_5

~/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] $ gsh goal

    ____________________________________________________________________
   / \                                                                  \.
  |   | Mission goal                                                   |.
   \_ | ============                                                   |.
      |                                                                |.
      | The spiders are getting clever: they found a way to hide.      |.
```

monica@kali: ~

```
~
[mission 9] $ gsh goal

 ____________________________________________________________________________________________________
/  __                                                                                            __ \
|  / \   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.                                    |     |
|     |                                                                                            |     |
|     |                                                                                            |     |
|     |   Remark                                                                                   |     |
|     |   ------                                                                                   |     |
|     |                                                                                            |     |
|     |   The wildcards "*" and "?" don't see hidden files, you need to add an explicit dot at the start of the pattern.|     |
|     |                                                                                            |     |
\     |____________________________________________________________________________________________|     /
 \___/                                                                                            \___/


~
[mission 9] $
```

monica@kali: ~

File Actions Edit View Help

```
~/Castle/Cellar
[mission 9] $ ls -A
.10046_spider_15  .1429_spider_39   .21241_spider_1   .30726_spider_8   .4466_spider_4
.11519_spider_18  .15194_spider_12  .23228_spider_45  .3086_bat_1       .4954_spider_34
.12377_spider_38  .15644_spider_48  .24110_spider_37  .31107_spider_40  .5106_spider_46
.12492_spider_11  .16282_spider_7   .2531_spider_30   .31404_spider_29  .5906_spider_26
.1252_spider_47   .1655_spider_24   .26086_bat_5      .3149_spider_13   .6142_spider_28
.12589_spider_31  .1693_spider_42   .26522_spider_6   .31997_spider_17  .7415_spider_9
.12619_spider_50  .17128_spider_35  .27660_spider_5   .32362_spider_23  .9757_spider_33
.12771_bat_4      .17941_spider_36  .28836_spider_44  .32477_spider_14  27739_bat_2
.13368_spider_41  .18227_spider_2   .29035_spider_27  .32663_spider_49  30720_bat_3
.13682_spider_16  .19325_spider_25  .29089_bat_3      .3383_spider_10   31099_bat_1
.13711_spider_22  .1989_spider_20   .2957_spider_19   .3633_spider_21   31432_bat_4
.13840_spider_43  .19988_spider_3   .2966_spider_32   .3639_bat_2       32694_bat_5

~/Castle/Cellar
[mission 9] $ rm .*_??

~/Castle/Cellar
[mission 9] $ ls
27739_bat_2  30720_bat_3  31099_bat_1  31432_bat_4  32694_bat_5

~/Castle/Cellar
[mission 9] $ ls -A
.12771_bat_4     .21241_spider_1  .29089_bat_3     .4466_spider_4  31099_bat_1
.16282_spider_7  .26086_bat_5     .30726_spider_8  .7415_spider_9  31432_bat_4
.18227_spider_2  .26522_spider_6  .3086_bat_1      27739_bat_2     32694_bat_5
.19988_spider_3  .27660_spider_5  .3639_bat_2      30720_bat_3

~/Castle/Cellar
[mission 9] $ rm .*6

~/Castle/Cellar
[mission 9] $ rm .*7

~/Castle/Cellar
[mission 9] $ rm .*8

~/Castle/Cellar
[mission 9] $ rm .*9
```

monica@kali: ~

File Actions Edit View Help

```
~/Castle/Cellar
[mission 9] $ rm .*9

~/Castle/Cellar
[mission 9] $ ls -A
.12771_bat_4     .21241_spider_1  .29089_bat_3  .4466_spider_4  31099_bat_1
.18227_spider_2  .26086_bat_5     .3086_bat_1   27739_bat_2     31432_bat_4
.19988_spider_3  .27660_spider_5  .3639_bat_2   30720_bat_3     32694_bat_5

~/Castle/Cellar
[mission 9] $ rm .21241_spider_1 .4466_spider_4 .18227_spider_2 .19988_spider_3 .27660_spider_5


~/Castle/Cellar
[mission 9] $ ls-A
ls-A: command not found

~/Castle/Cellar
[mission 9] $ ls -A
.12771_bat_4  .29089_bat_3  .3639_bat_2  30720_bat_3  31432_bat_4
.26086_bat_5  .3086_bat_1   27739_bat_2  31099_bat_1  32694_bat_5

~/Castle/Cellar
[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.
 .''-.-::::::::'     ||
/.'`;|:::::::'      ||_
||   ||::::::'     _.;._'-._
||   ||::::::'  _.-!oo @.!-._'-.
\'.  ||::::::.-!()oo @!()@.-'_.|
 '.'-;|:.-'.&$@.& ()$%-'o.'\U||
   `>'-.!@%()@'@_%-'_.-o _.|'||
 jgs ||--._'-.@.-'_.-' _.-o  |'||
```

```
monica@kali: ~
  | Use the command                          |
  | $ gsh help                                |
  | to get the list of "gsh" commands.        |
--+-------------------------------------------+--
  |                                           |

~
[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.                                                                                  |
     | Remark: ``cp`` is an abbreviation of "copy".                                                                     |
     |__________________________________________________________________________________________________________________|
()=(__________________________________________________________________________________________________________________(@=()
    '__________________________________________________________________________________________________________________'


~
[mission 10] $
```

monica@kali: ~

File Actions Edit View Help

```
~/Castle/Cellar
[mission 10] $ cd ..

~/Castle
[mission 10] $ cd ..

~
[mission 10] $ ls
Castle/  Forest/  Garden/  Mountain/  Stall/

~
[mission 10] $ cd Castle/

~/Castle
[mission 10] $ ls
Cellar/  Great_hall/  Main_building/  Main_tower/  Observatory/

~/Castle
[mission 10] $ cd Great_hall/

~/Castle/Great_hall
[mission 10] $ ls
17044_stag_head          8091_suit_of_armour  standard_2  standard_4
57295_decorative_shield  standard_1           standard_3

~/Castle/Great_hall
[mission 10] $ cp standard_1 standard_2 standard_3 standard_4 ~/Forest/Hut/Chest

~/Castle/Great_hall
[mission 10] $ cd ~/Forest/Hut/Chest

~/Forest/Hut/Chest
[mission 10] $ ls
coin_1  coin_2  coin_3  standard_1  standard_2  standard_3  standard_4

~/Forest/Hut/Chest
[mission 10] $ gsh check

Congratulations, mission 10 has been successfully completed!
```

monica@kali: ~

Applications File Actions Edit View Help

```
[mission 11] $ gsh goal
  __^__                                                                                                  __^__
 ( ___ )------------------------------------------------------------------------------------------------( ___ )
  | / |                                                                                                  | \ |
  | / |  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                                                                                  | \ |
  | / |  ===============                                                                                | \ |
  | / |                                                                                                  | \ |
  | / |  *                                                                                               | \ |
  | / |  The "*" character stands in for any sequence of characters                                      | \ |
  | / |  (including an empty sequence).                                                                  | \ |
  | / |                                                                                                  | \ |
  | / |  ?                                                                                               | \ |
  | / |  The "?" character stands in for any single character.                                           | \ |
  |___|                                                                                                  |___|
(_____)------------------------------------------------------------------------------------------------(_____)


~
[mission 11] $
```

monica@kali: ~

File Actions Edit View Help

```
~/Forest/Hut/Chest
[mission 11] $ cd ~/Castle/Great_hall/

~/Castle/Great_hall
[mission 11] $ ls
17474_tapestry_09     41347_tapestry_05        51285_tapestry_02  standard_3
18219_tapestry_07     41842_decorative_shield  51692_tapestry_01  standard_4
22847_suit_of_armour  43327_tapestry_10        54431_tapestry_08
31925_tapestry_06     43645_tapestry_04        standard_1
36215_stag_head       51103_tapestry_03        standard_2

~/Castle/Great_hall
[mission 11] $ cp *_?? ~/Forest/Hut/Chest/

~/Castle/Great_hall
[mission 11] $ cd /Forest/Hut/Chest/
bash: cd: /Forest/Hut/Chest/: No such file or directory

~/Castle/Great_hall
[mission 11] $ cd /Forest/Hut/Chest/
bash: cd: /Forest/Hut/Chest/: No such file or directory

~/Castle/Great_hall
[mission 11] $ cd ~/Forest/Hut/Chest/

~/Forest/Hut/Chest
[mission 11] $ ls
17474_tapestry_09  43327_tapestry_10  51692_tapestry_01  coin_3      standard_4
18219_tapestry_07  43645_tapestry_04  54431_tapestry_08  standard_1
31925_tapestry_06  51103_tapestry_03  coin_1             standard_2
41347_tapestry_05  51285_tapestry_02  coin_2             standard_3

~/Forest/Hut/Chest
[mission 11] $ gsh check

Congratulations, mission 11 has been successfully completed!


  |                                   |
--+-----------------------------------+--
```

monica@kali: ~

```
~
[mission 12] $ gsh goal

 ____________________________________________________________________________________________________________________________________
/  __                                                                                                                          __  \
|  /  \   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.                                                                                 |      |
|      |                                                                                                                     |      |
\      |_____________________________________________________________________________________________________________________|      /
 \___/                                                                                                                        \___/

~
[mission 12] $
```

monica@kali: ~

File Actions Edit View Help

```
~/Forest/Hut/Chest
[mission 12] $ cd ..

~/Forest/Hut
[mission 12] $ cd ..

~/Forest
[mission 12] $ cd ..

~
[mission 12] $ ls
Castle/  Forest/  Garden/  Mountain/  Stall/

~
[mission 12] $ Castle/
bash: Castle/: Is a directory

~
[mission 12] $ cd Castle/

~/Castle
[mission 12] $ ls
Cellar/  Great_hall/  Main_building/  Main_tower/  Observatory/

~/Castle
[mission 12] $ cd Main_tower/

~/Castle/Main_tower
[mission 12] $ ls
First_floor/

~/Castle/Main_tower
[mission 12] $ cd First_floor/

~/Castle/Main_tower/First_floor
[mission 12] $ ls -l
total 16
drwxr-xr-x 3 monica monica 4096 Dec 15 18:05 Second_floor/
-rw-r--r-- 1 monica monica 1503 Jan 12  2004 painting_VnVobiUA
-rw-r--r-- 1 monica monica 1055 May 22  1988 painting_dTDZwcXR
-rw-r--r-- 1 monica monica 1455 May  7  2018 painting_mEsJSmnR
```

monica@kali: ~

File Actions Edit View Help

```
\ / ||   /;/`    `-;;;;; . .||  \ /
/ \ ||  |;|__  __  \;;;|   ||  / \
\ / ||.-.|;| e`/e`  |;;;|   ||  \ /
/ \ ||   |;|  |     |;;;|'——||  / \
\ / ||   |;|  '-    |;;;|   ||  \ /
/ \ ||   |;;\ --'  /|;;;|   ||  / \
\ / ||   |;;;;;——'\|;;;|   ||  \ /
/ \ ||   |;;;;|     |;;;|   ||  / \
\ / ||   |;;.-'     |;;;|   ||  \ /
/ \ ||'——|/`        |;;;|——.||  / \
\ / ||;;;;    .     ;;;;.\;;||  \ /
/ \ ||;;;;;-.;_    /.-;;;;;||  / \
\ / ||;;;;;;;;;;;;;;;;;;;;;;||  \ /
/ \ ||jgs;;;;;;;;;;;;;;;;;;;||  / \
\ / '————————————————————'  \ /
/ \                          / \
\ /                          \ /
/ \ / \ / \ / \ / \ / \ / \ / \
\ / \ / \ / \ / \ / \ / \ / \ /

~/Castle/Main_tower/First_floor
[mission 12] $ cp painting_dTDZwcXR ~/Forest/Hut/Chest/

~/Castle/Main_tower/First_floor
[mission 12] $ cd /Forest/Hut/Chest/
bash: cd: /Forest/Hut/Chest/: No such file or directory

~/Castle/Main_tower/First_floor
[mission 12] $ cd ~/Forest/Hut/Chest/

~/Forest/Hut/Chest
[mission 12] $ ls
17474_tapestry_09  43327_tapestry_10  51692_tapestry_01  coin_3             standard_3
18219_tapestry_07  43645_tapestry_04  54431_tapestry_08  painting_dTDZwcXR  standard_4
31925_tapestry_06  51103_tapestry_03  coin_1             standard_1
41347_tapestry_05  51285_tapestry_02  coin_2             standard_2

~/Forest/Hut/Chest
[mission 12] $ gsh check

Congratulations, mission 12 has been successfully completed!
```

```
monica@kali: ~
File  Edit  View  Help
  | to get the list of "gsh" commands. |
--+-------------------------------------+--
  |                                     |


~
[mission 13] $ gsh goal
  __^__                                                      __^__
 ( ___ )------------------------------------------------------( ___ )
  | / |                                                      | / |
  | / |  Mission goal                                        | \ |
  | / |  ============                                        | \ |
  | / |                                                      | \ |
  | / |  Nostradamus predicted a spectacular star conjunction on the 11-20-1965.  | \ |
  | / |  But what will the day of the week be on that date?  | \ |
  | / |                                                      | \ |
  | / |  When you have it, run the command ``gsh check``.    | \ |
  | / |                                                      | \ |
  | / |                                                      | \ |
  | / |  Useful commands                                     | \ |
  | / |  ================                                    | \ |
  | / |                                                      | \ |
  | / |  cal                                                 | \ |
  | / |  Print a calendar for the current month.             | \ |
  | / |                                                      | \ |
  | / |  cal YEAR                                            | \ |
  | / |  Print a calendar for the given year.                | \ |
  |___|                                                      |___|
 (_____)------------------------------------------------------(_____)


~
[mission 13] $
```

monica@kali: ~

File Actions Edit View Help

```
      |                                                          |.
      | cal                                                      |.
      | Print a calendar for the current month.                  |.
      |                                                          |.
      | cal YEAR                                                 |.
      | Print a calendar for the given year.                     |.
      |  ________________________________________________________|
      | /                                                        /.
      \_/______________________________________________________/.


~/Forest/Hut/Chest
[mission 13] $ cal
   December 2023
Su Mo Tu We Th Fr Sa
                   1  2
 3  4  5  6  7  8  9
10 11 12 13 14 15 16
17 18 19 20 21 22 23
24 25 26 27 28 29 30
31

~/Forest/Hut/Chest
[mission 13] $ cal 1987
                                1987
      January               February              March
Su Mo Tu We Th Fr Sa  Su Mo Tu We Th Fr Sa  Su Mo Tu We Th Fr Sa
             1  2  3   1  2  3  4  5  6  7   1  2  3  4  5  6  7
 4  5  6  7  8  9 10   8  9 10 11 12 13 14   8  9 10 11 12 13 14
11 12 13 14 15 16 17  15 16 17 18 19 20 21  15 16 17 18 19 20 21
18 19 20 21 22 23 24  22 23 24 25 26 27 28  22 23 24 25 26 27 28
25 26 27 28 29 30 31                        29 30 31


       April                  May                   June
Su Mo Tu We Th Fr Sa  Su Mo Tu We Th Fr Sa  Su Mo Tu We Th Fr Sa
          1  2  3  4                  1  2      1  2  3  4  5  6
 5  6  7  8  9 10 11   3  4  5  6  7  8  9   7  8  9 10 11 12 13
12 13 14 15 16 17 18  10 11 12 13 14 15 16  14 15 16 17 18 19 20
19 20 21 22 23 24 25  17 18 19 20 21 22 23  21 22 23 24 25 26 27
26 27 28 29 30        24 25 26 27 28 29 30  28 29 30
```

monica@kali: ~

File Actions Edit View Help

```
          1  2  3  4                    1         1  2  3  4  5
 5  6  7  8  9 10 11   2  3  4  5  6  7  8   6  7  8  9 10 11 12
12 13 14 15 16 17 18   9 10 11 12 13 14 15  13 14 15 16 17 18 19
19 20 21 22 23 24 25  16 17 18 19 20 21 22  20 21 22 23 24 25 26
26 27 28 29 30 31     23 24 25 26 27 28 29  27 28 29 30
                      30 31

      October               November              December
Su Mo Tu We Th Fr Sa  Su Mo Tu We Th Fr Sa  Su Mo Tu We Th Fr Sa
             1  2  3   1  2  3  4  5  6  7         1  2  3  4  5
 4  5  6  7  8  9 10   8  9 10 11 12 13 14   6  7  8  9 10 11 12
11 12 13 14 15 16 17  15 16 17 18 19 20 21  13 14 15 16 17 18 19
18 19 20 21 22 23 24  22 23 24 25 26 27 28  20 21 22 23 24 25 26
25 26 27 28 29 30 31  29 30                 27 28 29 30 31


~/Forest/Hut/Chest
[mission 13] $ gsh check
What was the day of the week for the 04-16-1987?
  1 : Monday
  2 : Tuesday
  3 : Wednesday
  4 : Thursday
  5 : Friday
  6 : Saturday
  7 : Sunday
Your answer: 4

Congratulations, mission 13 has been successfully completed!


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


~/Forest/Hut/Chest
```

monica@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                                                                                          ||
        ||   ===============                                                                                          ||
        ||                                                                                                            ||
        ||   alias STRING='COMMAND'                                                                                   ||
        ||   Create a synonym for a string, that will stand for a command.                                            ||
        ||                                                                                                            ||
 /&\/\_|____________________________________________________________________________________________________________|_/\/&\
(      _|                                                                                                            |_      )
 \_/\/ `____________________________________________________________________________________________________________' \/\_/
```

monica@kali: ~

File Actions Edit View Help

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

~/Forest/Hut/Chest
[mission 14] $ alias la='ls -A'

~/Forest/Hut/Chest
[mission 14] $ la
.12798_coin_3      18219_tapestry_07  51103_tapestry_03  coin_2             standard_3
.1343_coin_1       31925_tapestry_06  51285_tapestry_02  coin_3             standard_4
.2470_coin_2       41347_tapestry_05  51692_tapestry_01  painting_dTDZwcXR
.nice_rock         43327_tapestry_10  54431_tapestry_08  standard_1
17474_tapestry_09  43645_tapestry_04  coin_1             standard_2

~/Forest/Hut/Chest
[mission 14] $ gsh check

Congratulations, mission 14 has been successfully completed!


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


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

monica@kali: ~

```
   (                                                                                                                  (
    )  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 screen (the "^" symbol means "Control"). The most important ones are:  (
    )      Control-x     quit                                                                                          )
   (       Control-o     save                                                                                          (
    )      Control-w     search for a string                                                                           )
   (                                                                                                                  (
    )  Remark: do not use Control-s or Control-z!                                                                     )
   (                                                                                                                  (
   /\''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''\
(0)===)>◇◇◇
```

monica@kali: ~

File Actions Edit View Help

```
|       |   symbol means "Control"). The most important ones are:                |
|       |       Control-x     quit                                                |
|       |       Control-o     save                                                |
|       |       Control-w     search for a string                                 |
|       |                                                                         |
|       |   Remark: do not use Control-s or Control-z!                            |
|       |                                                                         |
|       |                                                                        /
|       |_______________________________________________________________________.'
\       |
 \ `___.'


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

~/Forest/Hut/Chest
[mission 15] $ ls
17474_tapestry_09  43327_tapestry_10  51692_tapestry_01  coin_3             standard_2
18219_tapestry_07  43645_tapestry_04  54431_tapestry_08  journal.txt        standard_3
31925_tapestry_06  51103_tapestry_03  coin_1             painting_dTDZwcXR  standard_4
41347_tapestry_05  51285_tapestry_02  coin_2             standard_1

~/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] $ gsh goal
```

monica@kali: ~

```
| 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
| ═══════════════
|
| nano FILE
| Edit the file from the shell.
| (If the file does not exist, it will be created.)
|
| alias STRING='COMMAND'
| Create a synonym for a string, that will stand for a command.
|
|
| Note
| ————
|
| If (and only if) you know what you're doing, you can use the ``EDITOR`` variable to define your favorite editor and use it in the alias.
|
| /
\_/

~
[mission 16] $
```

monica@kali: ~

File Actions Edit View Help

```
                                                          ))
                                                          ^


~/Forest/Hut/Chest
[mission 16] $ alias journal='~/Forest/Hut/Chest/journal.txt/'

~/Forest/Hut/Chest
[mission 16] $ journal
bash: /home/monica/gameshell/World/Forest/Hut/Chest/journal.txt/: Not a directory

~/Forest/Hut/Chest
[mission 16] $ alias journal='~/Forest/Hut/Chest/journal.txt'

~/Forest/Hut/Chest
[mission 16] $ cd ..

~/Forest/Hut
[mission 16] $ journal
bash: /home/monica/gameshell/World/Forest/Hut/Chest/journal.txt: Permission denied

~/Forest/Hut
[mission 16] $ alias journal='nano ~/Forest/Hut/Chest/journal.txt'

~/Forest/Hut
[mission 16] $ journal

~/Forest/Hut
[mission 16] $ gsh check

Congratulations, mission 16 has been successfully completed!



                _.-.          Congratulations!
            _.-'_:-'||
        _.-'_.-::::'||        From now on you can use the file
    _.-:'_.-::::::'  ||       "~/.gshrc"
  .'`-.-:::::::'     ||       to record aliases. More information can be found in the file
 /.'`;|:::::::'      ||_      (it has been created for you).
||    ||::::::'     _.;._'-._
```

monica@kali: ~

```
~
[mission 17] $ gsh goal

 /ϑ\/\_..__________________________________________________________________________________________________________._/\/ϑ\
(      _||                                                                                                          || _     )
 \_/\/  ||   Mission goal                                                                                            || `\/\_/
        ||   ═══════════                                                                                            ||
        ||                                                                                                          ||
        ||   At the back of the cellar, there is a small opening going to the spider queen's lair.                  ||
        ||   Go there, and remove the spider queen (and nothing else).                                              ||
        ||                                                                                                          ||
        ||                                                                                                          ||
        ||   Note: you have a limited amount of time (20 seconds) to do that. You can use the command ``gsh reset`` to reset the timer.   ||
        ||                                                                                                          ||
        ||   Another thing: shell patterns have been deactivated. You cannot use the wildcards ``*`` or ``?``.      ||
        ||                                                                                                          ||
        ||                                                                                                          ||
        ||   Useful commands                                                                                        ||
        ||   ═══════════════                                                                                        ||
        ||                                                                                                          ||
        ||   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.                                                              ||
        ||                                                                                                          ||
        ||   Tab-Tab                                                                                                ||
        ||   Pressing the "Tabulation" key twice successively shows a list of possible completions.                ||
        ||                                                                                                          ||
 /ϑ\/\_|__________________________________________________________________________________________________________|_/\/ϑ\
(      _|                                                                                                          |_     )
 \_/\/ `__________________________________________________________________________________________________________'`\/\_/


~
[mission 17] $
```

monica@kali: ~

File Actions Edit View Help

```
  | to get the list of "gsh" commands. |
--+-------------------------------------+--
  |                                     |


~/Castle/Cellar
[mission 17] $ cd .Lair_of_the_spider_queen\ UEmfGxjBpJEoKIBO mklYTTErDAFAkVEI/

~/Castle/Cellar/.Lair_of_the_spider_queen UEmfGxjBpJEoKIBO mklYTTErDAFAkVEI
[mission 17] $ la
oreyShsWVelWkPTy_spider_queen_xPntvdOgTwQXdRRb  uPOXSRLtnxXYsloz_baby_bat_zTOwVyKATOIyyCyJ

~/Castle/Cellar/.Lair_of_the_spider_queen UEmfGxjBpJEoKIBO mklYTTErDAFAkVEI
[mission 17] $ rm oreyShsWVelWkPTy_spider_queen_xPntvdOgTwQXdRRb

~/Castle/Cellar/.Lair_of_the_spider_queen UEmfGxjBpJEoKIBO mklYTTErDAFAkVEI
[mission 17] $ la
uPOXSRLtnxXYsloz_baby_bat_zTOwVyKATOIyyCyJ

~/Castle/Cellar/.Lair_of_the_spider_queen UEmfGxjBpJEoKIBO mklYTTErDAFAkVEI
[mission 17] $ gsh check
Perfect, it took you only 18 seconds to complete this mission!

Congratulations, mission 17 has been successfully completed!


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


~/Castle/Cellar/.Lair_of_the_spider_queen UEmfGxjBpJEoKIBO mklYTTErDAFAkVEI
[mission 18] $
```

monica@kali: ~

```
~
[mission 18] $ gsh goal

 /ϑ\/\_..__________________________________________________________________________________________________________________________._/\/ϑ\
(       _ ||                                                                                                                      ||_       )
 \_/\/  ||   Mission goal                                                                                                          || \/\_/
        ||   ============                                                                                                          ||
        ||                                                                                                                        ||
        ||   As you are walking around the castle, you feel like you are being watched... Turn your head quickly enough and you may see one of the    ||
        ||   paintings' eyes following you.                                                                                       ||
        ||                                                                                                                        ||
        ||   1/ Run the ``xeyes`` command, and stop it.                                                                           ||
        ||   2/ Run the ``xeyes`` command in the background.                                                                      ||
        ||                                                                                                                        ||
        ||                                                                                                                        ||
        ||   Useful commands                                                                                                      ||
        ||   ===============                                                                                                      ||
        ||                                                                                                                        ||
        ||   xeyes                                                                                                                ||
        ||   Open a window with 2 eyes that track your mouse.                                                                     ||
        ||                                                                                                                        ||
        ||   COMMAND &                                                                                                            ||
        ||   Run the command in the background.                                                                                   ||
        ||                                                                                                                        ||
        ||   Control-c                                                                                                            ||
        ||   This key binding usually interrupts the current command by sending it the "INT" signal.                              ||
        ||                                                                                                                        ||
 /ϑ\/\_|__________________________________________________________________________________________________________________________|_/\/ϑ\
(       _|                                                                                                                        |_       )
 \_/\/ `__________________________________________________________________________________________________________________________' \/\_/


~
[mission 18] $
```

monica@kali: ~

```
|       |  Run the command in the background.                                                                  |      |
|       |                                                                                                      |      |
|       |  Control-c                                                                                           |      |
|       |  This key binding usually interrupts the current command by sending it the "INT" signal.             |      |
|       |                                                                                                      |      |
 \      |______________________________________________________________________________________________________|     /
  \____/                                                                                                        \____/


~/Castle/Cellar/.Lair_of_the_spider_queen UEmfGxjBpJEoKIBO mklYTTErDAFAkVEI
[mission 18] $ xeyes
^C

~/Castle/Cellar/.Lair_of_the_spider_queen UEmfGxjBpJEoKIBO mklYTTErDAFAkVEI
[mission 18] $ xeyes&
[1] 160617

~/Castle/Cellar/.Lair_of_the_spider_queen UEmfGxjBpJEoKIBO mklYTTErDAFAkVEI
[mission 18] $ gsh check

Congratulations, mission 18 has been successfully completed!


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


~/Castle/Cellar/.Lair_of_the_spider_queen UEmfGxjBpJEoKIBO mklYTTErDAFAkVEI
[mission 19] $
```

monica@kali: ~

```
[mission 19] $ gsh goal

Mission goal
============

Find the copper coin in the small maze in the garden and move it to your chest.

If you want, you can use a graphical file manager. The maze is to be found in directory
/home/monica/gameshell.4/World/Garden/Maze

[mission 19] $
```

monica@kali: ~

File Actions Edit View Help

/home/monica

```
~/Garden/Maze
[mission 19] $ ls
bafdab10f1566c545d/  f6a8b06c48d77f1c1/

~/Garden/Maze
[mission 19] $ cd bafdab10f1566c545d/

~/Garden/Maze/bafdab10f1566c545d
[mission 19] $ ls
8f7113bfaacfd5048e53a3b885fe/  b04ea864dc6c416bb1f91dcaa6ba50/

~/Garden/Maze/bafdab10f1566c545d
[mission 19] $ cd 8f7113bfaacfd5048e53a3b885fe/

~/Garden/Maze/bafdab10f1566c545d/8f7113bfaacfd5048e53a3b885fe
[mission 19] $ ls
212d592a669675ea1/  f6bb7f48863e0b15/

~/Garden/Maze/bafdab10f1566c545d/8f7113bfaacfd5048e53a3b885fe
[mission 19] $ cd 212d592a669675ea1/

~/Garden/Maze/bafdab10f1566c545d/8f7113bfaacfd5048e53a3b885fe/212d592a669675ea1
[mission 19] $ ls
OOOOO_copper_coin_OOOOO

~/Garden/Maze/bafdab10f1566c545d/8f7113bfaacfd5048e53a3b885fe/212d592a669675ea1
[mission 19] $ mv OOOOO_copper_coin_OOOOO ~/Forest/Hut/Chest/

~/Garden/Maze/bafdab10f1566c545d/8f7113bfaacfd5048e53a3b885fe/212d592a669675ea1
[mission 19] $ cd

~
[mission 19] $ ls
Castle/  Forest/  Garden/  Mountain/  Stall/
```

```
File  Actions  Edit  View  Help
Castle/  Forest/  Garden/  Mountai

~
[mission 19] $ cd /Forest/Hut/Ches
bash: cd: /Forest/Hut/Chest/: No s

~
[mission 19] $ cd ~/Forest/Hut/Che

~/Forest/Hut/Chest
[mission 19] $ ls
17474_tapestry_09  41347_tapestry_
18219_tapestry_07  43327_tapestry_
31925_tapestry_06  43645_tapestry_

~/Forest/Hut/Chest
[mission 19] $ gsh check

Congratulations, mission 19 has been successfully completed!
```

```
Copy Selection          Ctrl+Shift+C
Paste Clipboard         Ctrl+Shift+V
Paste Selection         Shift+Ins
Zoom in                 Ctrl++
Zoom out                Ctrl+-
Zoom reset              Ctrl+0
Clear Active Terminal   Ctrl+Shift+X
Split Terminal Horizontally   Ctrl+Shift+D
Split Terminal Vertically     Ctrl+Shift+R
Collapse Subterminal    Ctrl+Shift+E
Toggle Menu             Ctrl+Shift+M
Hide Window Borders
Preferences...
```

```
oin_2       painting_dTDZwcXR  standard_3
oin_3       standard_1         standard_4
ournal.txt  standard_2
```

```
                 _.--.
             _.-'_:-'||
         _.-'_.-::::'||
    _.-:'_.-::::::'  ||
  .''-.-:::::::'     ||
 /.'`;|:::::::'      ||_
||   ||::::::'     _.;._'-._
||   ||:::::'  _.-!oo @.!-._'-.
\'.  ||:::::.-!()oo @!()@.-'_.|
 '.'-;|:.-'.&$@.& ()$%-'o.'\U||
   `>'-.!@%()@'@_%-'_.-o _.|'||
 jgs ||--._'-.@.-'_.-' _.-o  |'||
```

Congratulations!

From now on, the command ``ls`` will try using a color code to make it easier to differentiate between directories and several kinds of files.

```
monica@kali: ~
~
[mission 20] $ gsh goal
                                                                                                  .__.
                                                                                                 /  .  \
                                                                                                |\_/|   |
                                                                                                |   |  /|
 ._______________________________________________________________________________________________' |
 /  .-.                                                                                             |
|  /   \                                                                                             |
| |\_.  |   Mission goal                                                                              |
|\|  | /|   ==============                                                                            |
| `__' |                                                                                             |
|      |   Find the silver coin in the maze in the garden and move it to your chest using the shell. |
|      |                                                                                             |
|      |                                                                                             |
|      |   Useful commands                                                                           |
|      |   =================                                                                         |
|      |                                                                                             |
|      |   ls -R                                                                                     |
|      |   Print the list of all files / directory, including those in sub-directories (recursively). |
|      |                                                                                             |
|      |   tree                                                                                      |
|      |   Print the tree of files and directories, starting from the current working directory.     |
|      |                                                                                             |
|      |                                                                                            /
|      |___________________________________________________________________________________________'
\      |
 \    /
  `__'


~
[mission 20] $
```

monica@kali: ~

```
~/Forest/Hut/Chest
[mission 20] $ cd /home/monica/gameshell.1/World/Garden/Maze

~/Garden/Maze
[mission 20] $ tree
.
├── 857d25f30db810b321d74bf1b35
│   ├── 2583eb5e4f4c16ad1a
│   │   ├── 47c3c5e4587d117a5963da338095
│   │   ├── 57d980c8b77c7565f91fd2a66
│   │   └── 797b98ff97aa6a08bb4531
│   ├── 435e3526585e
│   │   ├── 429e25a9c03ec33f81e833181ee40f4
│   │   ├── 6b83cc8f7faec15b52abec181813e
│   │   └── ddc845c28f3782b72077fcaf4
│   └── 8f52d5956a2d22143d07e1ca978c3
│       ├── 7a47973adc2
│       ├── 844aa2800e6bc8ae77fdfada9b5
│       └── fa703c2e9b2ea7
├── a2f188df7f447
│   ├── b82633ada49c8f3afb6
│   │   ├── 6e3537511d224fc5
│   │   ├── 8cdb4fddc39a0721411ad
│   │   └── ce7869e77f451065e2d6a79375
│   ├── dc8557082ec5db1b3070507fc
│   │   ├── 1c9ef3952733f10074b2ead9bb7
│   │   ├── 3e94e0c6800e4e232142
│   │   └── ff6043837faedf24a859787bfc03
│   └── febde0350ae0d27184f93cd627
│       ├── 0766049ae4cbaa0c4b81fd126d7f0f
│       ├── a287da3bb82fe7575219b5
│       └── fe86bad3403a9bca6e328becc63f4
└── fd1b49c4243c1
```

File Actions Edit View Help

```
40 directories, 1 file

~/Garden/Maze
[mission 20] $ ls -r
fd1b49c4243c1/  a2f188df7f447/  857d25f30db810

~/Garden/Maze
[mission 20] $ cd fd1b49c4243c1/b8ff4b3677b19f

~/Garden/Maze/fd1b49c4243c1/b8ff4b3677b19f5664,
[mission 20] $ ls
00000_silver_coin_00000

~/Garden/Maze/fd1b49c4243c1/b8ff4b3677b19f5664,
[mission 20] $ mv 00000_silver_coin_00000 ~/Fo

~/Garden/Maze/fd1b49c4243c1/b8ff4b3677b19f5664,
[mission 20] $ gsh check

Congratulations, mission 20 has been successfully completed!

You are back at the entrance of the maze ...

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


~/Garden/Maze
[mission 21] $
```

Copy Selection	Ctrl+Shift+C
Paste Clipboard	Ctrl+Shift+V
Paste Selection	Shift+Ins
Zoom in	Ctrl++
Zoom out	Ctrl+-
Zoom reset	Ctrl+0
Clear Active Terminal	Ctrl+Shift+X
Split Terminal Horizontally	Ctrl+Shift+D
Split Terminal Vertically	Ctrl+Shift+R
Collapse Subterminal	Ctrl+Shift+E
Toggle Menu	Ctrl+Shift+M
Hide Window Borders	
Preferences...	

monica@kali: ~

Applications File Actions Edit View Help

```
[mission 21] $ gsh goal

 ,_____________________________________________________________________________________________________________.
 (_\                                                                                                            \
   |  Mission goal
   |  ============
   |
   |  Find the gold coins in the maze hidden in the garden and move them to your chest.
   |
   |  Useful commands
   |  ================
   |
   |  find CONDITION
   |  Search for files satisfying the condition, starting from your current working directory.
   |
   |  There are many possible conditions. They can constrain the
   |  file names, size, modification date, etc. For example -name "PATTERN"
   |  -iname "PATTERN"
   |  are both related to file names.
   |
   |  man COMMAND
   |  Display the manual of the command.
   |
   |  Important key bindings:
   |      q           quit
   |      Space       scroll down one page
   |  / STRING search for the string
   |      n           find the next occurrence of the
   |  search string
   |
   |  Remark
   |  ======
   |
```

monica@kali: ~

```
(0)__,~~~
```

Applications Edit View Help

monica@kali: ~

```
~
[mission 22] $ gsh goal

 ,_____________________________________________________________________________________________________________.
 (_\                                                                                                            \
   |  Mission goal
   |  ============
   |
   |  A forgetful old hermit called Servillus has set up camp in a cave with his old, leather-bound potion book.
   |  Go to the cave and help him remember the recipe of his famous herbal tea.
   |
   |  In order to validate the mission, you need to be in the cave with Servillus **and** your last command prior to ``gsh check`` must show
   |  the recipe (including its title), but nothing else.
   |
   |  Note: you shouldn't alter the content of the book of potions.
   |
   |  Useful commands
   |  ================
   |
   |  cat FILE
   |  Display the contents of the file.
   |
   |  head FILE
   |  Print the first 10 lines of the file.
   |
   |  head -n K FILE
   |  Print the first K lines of the file.
   |
   |  Remark
   |  ======
   |
   |  A "FILE" may contain directories if the file in question is not in the current directory.
```

monica@kali: ~

```
~/Mountain/Cave
[mission 22] $ cat servillus
7ddb6ed89095cbe52eb66aff68d1fc7c6db693a3@32554
                    .
            /^\     .
       ^    `V'
      /__\   I      O  o
     // ..\\  I     .
     \].`[/  I
     /l\/j\  (]    .  O
    /. ~~ ,\/I          .
    \\L__j^\/I       o
     \/--v}  I     o   .
     |    |  I   _________
     |    |  I c(`       ')o
     |    l  I   \.     ,/
    _/j  L l\_I  _//^——^\\_      Row
 ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

~/Mountain/Cave
[mission 22] $ head -n 6  Book_of_potions/page_07
Herbal tea
__________


1) Boil water.
2) Add herbs from the forest.
3) Let it sit for five minutes and drink while hot.

~/Mountain/Cave
[mission 22] $ gsh check

Congratulations, mission 22 has been successfully completed!
```

monica@kali: ~

```
 / \  ____________________________________________________________________________________________________________________________
|   | Mission goal                                                                                                                 |.
 \_ | ============                                                                                                                 |.
   |                                                                                                                              |.
   | The old man seems to enjoy your company very much. He invites you to stay for supper, and starts preparing a delicious stew for the both |.
   | of you. While getting the cauldron ready he asks for your help.                                                              |.
   | Read him the steps of the recipe from his book.                                                                              |.
   |                                                                                                                              |.
   | In order to validate the mission, you need to be in the cave with Servillus **and** last command prior to ``gsh check`` must show the |.
   | steps of the recipe (without its title).                                                                                     |.
   |                                                                                                                              |.
   | Note: you shouldn't alter the content of the book of potions.                                                                |.
   |                                                                                                                              |.
   |                                                                                                                              |.
   | Useful commands                                                                                                              |.
   | ===============                                                                                                              |.
   |                                                                                                                              |.
   | cat FILE                                                                                                                     |.
   | Display the contents of the file.                                                                                            |.
   |                                                                                                                              |.
   | tail FILE                                                                                                                    |.
   | Print the last 10 lines of the file.                                                                                         |.
   |                                                                                                                              |.
   | tail -n K FILE                                                                                                               |.
   | Print the last K lines of the file.                                                                                          |.
   |  ____________________________________________________________________________________________________________________________|___
   |  /                                                                                                                            /.
   \_/____________________________________________________________________________________________________________________________/.

~
[mission 23] $
```

```
~/Mountain/Cave
[mission 23] $ ls
Book_of_potions/  servillus

~/Mountain/Cave
[mission 23] $ cd Book_of_potions/

~/Mountain/Cave/Book_of_potions
[mission 23] $ ls
page_01  page_02  page_03  page_04  page_05  page_06  page_07  page_08  page_09  page_10  page_11  page_12  page_13  table_of_contents

~/Mountain/Cave/Book_of_potions
[mission 23] $ cat table_of_contents
1. Transformation potion ———————————————— pages 1-2
2. Elixir of youth ———————————————————— pages 3-4
3. Philter of love ——————————————————— page 5
4. Bottled death (powerful poison) ———————————— page 6
5. Herbal tea ——————————————————— page 7
6. Draft of invisibility ——————————————— pages 7-8
7. Homeopathic healing potion (part 1) ——————— pages 8-9
8. Homeopathic healing potion (part 2) ——————— page 10
9. Homeopathic healing potion (part 3) ——————— page 11
10. Toadstool stew ——————————————————— page 12
11. Distilled water ——————————————————— page 13
12. King's ale ———————————————————— Page 13

~/Mountain/Cave/Book_of_potions
[mission 23] $ cat page_12
Toadstool stew
——————————

1) Boil water in a cauldron.
```

File Actions Edit View Help

```
0b23c4f40a1223c1857e961db5242ad21cf3c3fc@21945
                    .
            /^\     .
       ^   `V'
      /__\   I      O  o
     // ..\\  I     .
     \].`[/  I
     /l\/j\  (]    .  O
    /. ~~ ,\/I          .
    \\L__j^\/I       o
     \/--v}  I     o   .
     |    |  I   _________
     |    |  I c(`       ')o
     |    l  I   \.     ,/
   _/j  L l\_I  _//^——^\\_      Row
 ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

~/Mountain/Cave
[mission 23] $ tail -n 9 Book_of_potions/page_12
1) Boil water in a cauldron.
2) Add in a few death caps (Amanita phalloides).
3) Also add a few fly agarics (Amanita muscaria).
4) And some destroying angels (Amanita virosa).
5) Mix in a few deadly webcaps (Cortinarius rubellus).
6) Feel free to add in any colourful fungi you have on hand.
7) Let half of the water evaporate.
8) Season with a pinch of salt and a few herbs.
9) Serve hot in a bowl.

~/Mountain/Cave
[mission 23] $ gsh check

Congratulations, mission 23 has been successfully completed!
```

Copy Selection	Ctrl+Shift+C
Paste Clipboard	Ctrl+Shift+V
Paste Selection	Shift+Ins
Zoom in	Ctrl++
Zoom out	Ctrl+-
Zoom reset	Ctrl+0
Clear Active Terminal	Ctrl+Shift+X
Split Terminal Horizontally	Ctrl+Shift+D
Split Terminal Vertically	Ctrl+Shift+R
Collapse Subterminal	Ctrl+Shift+E
Toggle Menu	Ctrl+Shift+M
Hide Window Borders	
Preferences...	

monica@kali: ~

Applications File Actions Edit View Help

```
 .-------------------------------------------------------------------------------------------------------------------------------------.
/  .-.                                                                                                                                |
| /   \                                                                                                                               |
| |\_.  |   Mission goal                                                                                                                |
|\|  | /|   ============                                                                                                                |
| `---' |                                                                                                                               |
|       |   While cleaning the dishes, Servillus mentions an interesting potion that lets the drinker (temporarily) take the physical appearance of
|       |   anyone.                                                                                                                     |
|       |   Read the recipe of the potion from the hermit's book.                                                                       |
|       |                                                                                                                               |
|       |   In order to validate the mission, you need to be in the cave with Servillus **and** your last command prior to ``gsh check`` must show
|       |   the whole recipe (with its title).                                                                                          |
|       |                                                                                                                               |
|       |   Note: you shouldn't alter the content of the book of potions.                                                               |
|       |                                                                                                                               |
|       |                                                                                                                               |
|       |   Useful commands                                                                                                             |
|       |   ================                                                                                                            |
|       |                                                                                                                               |
|       |   cat FILE1 FILE2 ... FILEn                                                                                                   |
|       |   Display the contents of the files in order.                                                                                 |
|       |   Remark: ``cat`` is an abbreviation for "concatenate".                                                                       |
|       |                                                                                                                               |
|       |                                                                                                                               /
|       |-------------------------------------------------------------------------------------------------------------------------------'
\       |
 \     /
  `---'

~
[mission 24] $
```

monica@kali: ~

```
[mission 24] $ cat book_of_potions/table_of_contents
1. Transformation potion ———————————————— pages 1-2
2. Elixir of youth ———————————————————— pages 3-4
3. Philter of love ——————————————————— page 5
4. Bottled death (powerful poison) ——————————— page 6
5. Herbal tea ————————————————————— page 7
6. Draft of invisibility ———————————————— pages 7-8
7. Homeopathic healing potion (part 1) ————————— pages 8-9
8. Homeopathic healing potion (part 2) ————————— page 10
9. Homeopathic healing potion (part 3) ————————— page 11
10. Toadstool stew ——————————————————— page 12
11. Distilled water ——————————————————— page 13
12. King's ale ———————————————————— Page 13

~/Mountain/Cave
[mission 24] $ cat servillus
ab8d668e05b6eba9fa9040226fb203dcca050781@33586
                    .
            /^\     .
       ^   `V'
      /__\   I      O  o
     // ..\\  I     .
     \].`[/  I
     /l\/j\  (]    .  O
    /. ~~ ,\/I          .
    \\L__j^\/I       o
     \/--v}  I     o   .
     |    |  I   _________
     |    |  I c(`       ')o
     |    l  I   \.     ,/
   _/j  L l\_I  _//^——^\\_      Row
 ~~~~~~~~~~~~~~~~~~~~~~~~~~~~

~/Mountain/Cave
```

```
~/Mountain/Cave
[mission 24] $ cat Book_of_potions/page_01 Book_of_potions/page_02
Transformation potion
————————————————

1) Boil water in a cauldron.
2) Add 3 measures of fluxweed to the cauldron.
3) Add 2 bundles of knotgrass to the cauldron.
4) Stir 4 times, clockwise.
5) Wave your wand then let potion brew for 80 minutes.
6) Add 4 leeches to the cauldron.
7) Crush 2 scoops of lacewing flies to a fine paste.
8) Add 2 measures of the crushed lacewings to the cauldron.
9) Heat for 30 seconds on a low heat.
10) Add 3 measures of boomslang skin to the cauldron.
11) Crush a bicorn horn into a fine powder.
12) Add 1 measure of the crushed horn to the cauldron.
13) Heat for 20 seconds at a high temperature.
14) Wave your wand then let potion brew for 24 hours.
15) Add 1 additional scoop of lacewings to the cauldron.
16) Stir 3 times, counter-clockwise.
17) Split potion into multiple doses, if desired.
18) Add a pieces of the person you wish to become.
19) Wave your wand to complete the potion.

~/Mountain/Cave
[mission 24] $ gsh check

Congratulations, mission 24 has been successfully completed!


  |                                    |
--+————————————————————————————————+--
  | Use the command                    |
```

monica@kali: ~

```
[mission 25] $ gsh goal

Mission goal
============

The old hermit notices your interest for potion recipes, and sees promise in your ability to lookup lists of ingredients. He challenges
you to find the steps for the elixir of Youth.

In order to validate the mission, you need to be in the cave with Servillus **and** your last command prior to ``gsh check`` must show
the steps for the recipe and nothing else.

Note: you shouldn't alter the content of the book of potions.


Useful commands
===============

cat FILE1 FILE2 ... FILEn
Display the contents of the files in order.

tail
Print the last 10 lines sent on the standard input.

tail -n K
Print the last K lines sent on the standard input.
```

monica@kali: ~

```
~/Mountain/Cave
[mission 25] $ tail -n 7 Book_of_potions/page_03; cat Book_of_potions/page_04
1) Fill a cauldron with used bath water.
2) Put a moderately large frog in the water.
3) Let the preparation rest overnight.
4) The next morning thank and free your little green friend.
5) Boil the water and add in a few sticks of oak tree.
6) Crush 5 river stones to a fine powder.
7) Mix in a third of the powder and stir vigorously.
8) Let the preparation rest for a day.
9) Add hairs from the tail of a squirrel (willingly given).
10) Add the remaining stone powder.
11) Stir the potion very vigorously, in all directions.
12) Take some time to rest after such an effort.
13) Rest a little bit more.
14) Even take a nap if you want.
15) Add a few larch tree needles for seasoning.
16) Drink the potion from the cauldron.

~/Mountain/Cave
[mission 25] $ gsh check

Congratulations, mission 25 has been successfully completed!


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

monica@kali: ~

```
~
[mission 26] $ gsh goal

  __^__                                                                                                                  __^__
( ___ )------------------------------------------------------------------------------------------------------------------( ___ )
 | / |  Mission goal                                                                                                     | \ |
 | / |  ================                                                                                                   | \ |
 | / |                                                                                                                    | \ |
 | / |  The old hermit is thirsty and he would like you lookup the recipe for distilled water.                            | \ |
 | / |                                                                                                                    | \ |
 | / |  In order to validate the mission, you need to be in the cave with Servillus **and** your last command prior to ``gsh check`` must show | \ |
 | / |  the steps for the recipe and nothing else.                                                                        | \ |
 | / |                                                                                                                    | \ |
 | / |  Note: you shouldn't alter the content of the book of potions.                                                     | \ |
 | / |                                                                                                                    | \ |
 | / |                                                                                                                    | \ |
 | / |  Useful commands                                                                                                   | \ |
 | / |  ================                                                                                                   | \ |
 | / |                                                                                                                    | \ |
 | / |  head [-n K] [FILE]                                                                                                | \ |
 | / |  Print the first lines (10 by default, K if ``-n K`` is used) of the given file, or standard input if no file is given. | \ |
 | / |                                                                                                                    | \ |
 | / |  tail [-n K] [FILE]                                                                                                | \ |
 | / |  Print the last lines (10 by default, K if ``-n K`` is used) of the given file, or standard input if no file is given. | \ |
 | / |                                                                                                                    | \ |
 | / |  COMMAND1 | COMMAND2                                                                                                   | \ |
 | / |  Run the two commands, feeding the "standard output" of the former into the "standard input" of the latter.       | \ |
 | / |  Remark: by analogy with plumbing "|" is called "pipe".                                                            | \ |
 | / |                                                                                                                    | \ |
 | / |                                                                                                                    | \ |
 | / |  Remark                                                                                                            | \ |
```

```
  command 'ptine' from deb libxgks-dev
  command 'lie' from deb lie
  command 'link' from deb coreutils
  command 'xine' from deb xine-ui
Try: sudo apt install <deb name>

~/Mountain/Cave
[mission 26] $ head -6 Book_of_potions/page_13 | tail -3
1) Boil water in a big pot.
2) Condense the vapor in a fresh container.
3) Add minerals for a better taste (optional).

~/Mountain/Cave
[mission 26] $ gsh check

Congratulations, mission 26 has been successfully completed!

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


~/Mountain/Cave
[mission 27] $
  *#@*
 &_**/~
  !$~#
```

monica@kali: ~

```
~
[mission 27] $ gsh goal

()=(  ____________________________________________________________________________  (@=()
      '                                                                            '
      |
      | Mission goal
      | ============
      |
      | A mischievous imp cast a spell that puts smudges of coal everywhere in the castle.
      | Find this spell and remove it.
      |
      | Remark
      | ------
      |
      | The spell is a process.
      |
      |
      | Useful commands
      | ===============
      |
      | ps
      | List the processes that are currently executed by the shell.
      |
      | kill N
      | Send the termination signal to process number N.
      | Remark: N is called PID, or "process identifier".
      |
      | clear
      | Clear the screen.
      | The keybinding "Control-L" does the same and is often quicker to use in the terminal. |
```

monica@kali: ~

File Actions Edit View Help

```
[mission 27] $
                *#@*
               &_**/~
                !$-#

^C

~/Mountain/Cave
[mission 27] $ kill
                *#@*
               &_**/~
                !$-#


                *#@*
               &_**/~
                !$-#

^C

~/Mountain/Cave
[mission 27] $ kill 231214

~/Mountain/Cave
[mission 27] $ gsh check

Congratulations, mission 27 has been successfully completed!


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

monica@kali: ~

```
~
[mission 28] $ gsh goal

()=(                                                                                                                    (@=()
    '                                                                                                                    '|
     |
     | Mission goal
     | ═══════════
     |
     | The mischievous imp has more than one trick up his sleeve. He managed to protect his spell against most tampering.
     | You need to find this spell and try to remove it with standard signal. If it doesn't work, use a more brutal signal.
     |
     |
     | Remark
     | ══════
     |
     | The spell is a process.
     |
     |
     | Useful commands
     | ═══════════════
     |
     | ps
     | List the processes that are currently executed by the shell.
     |
     | kill [OPTIONS] N
     | Send the termination signal to process number N.
     |
     | Useful options:
     | -s SIGNAL choose the signal name
     |     -NUMBER     choose the signal number
```

monica@kali: ~

```
~/Mountain/Cave
[mission 28] $ kill -s sigtstp 244929

~/Mountain/Cave
[mission 28] $ ps
    PID TTY          TIME CMD
 144008 pts/1    00:00:00 zsh
 144094 pts/1    00:00:00 bash
 144160 pts/1    00:00:02 bash
 160617 pts/1    00:00:10 xeyes
 244929 pts/1    00:00:00 spell
 245888 pts/1    00:00:00 ps
```

monica@kali: ~

File Actions Edit View Help

/home/monica

```
 144008 pts/1    00:00:00 zsh
 144094 pts/1    00:00:00 bash
 144160 pts/1    00:00:02 bash
 160617 pts/1    00:00:10 xeyes
 244929 pts/1    00:00:00 spell
 246209 pts/1    00:00:00 ps

~/Mountain/Cave
[mission 28] $ kill 244929

~/Mountain/Cave
[mission 28] $ ps
    PID TTY          TIME CMD
 144008 pts/1    00:00:00 zsh
 144094 pts/1    00:00:00 bash
 144160 pts/1    00:00:02 bash
 160617 pts/1    00:00:10 xeyes
 244929 pts/1    00:00:00 spell
 246370 pts/1    00:00:00 ps

~/Mountain/Cave
[mission 28] $ kill -s sigkill 244929

~/Mountain/Cave
[mission 28] $ ps
    PID TTY          TIME CMD
 144008 pts/1    00:00:00 zsh
 144094 pts/1    00:00:00 bash
 144160 pts/1    00:00:02 bash
 160617 pts/1    00:00:10 xeyes
 246816 pts/1    00:00:00 ps

~/Mountain/Cave
[mission 28] $ gsh check
```

monica@kali: ~

```
~
[mission 29] $ gsh goal

 / \
|   | Mission goal
 \_ | ============
    |
    | The imp is comparing his magic with a fairy. They met in the cellar, and imp is conjuring lumps of coal while the fairy is conjuring
    | delicate snowflakes.
    |
    | Remove the imp's spells and the coal that litters the cellar, but don't touch the snowflakes!
    |
    |
    | Remark
    | ------
    |
    | Do not kill the imp or the fairy.
    |
    |
    | Useful commands
    | ===============
    |
    | pstree PID
    | Print the list of processes with their parent / child relationship.
    |
    | If no PID is given, show the list of all processes with their parent / child relationship.
    |
    | Useful options:
    |     -p   show the PID of processes
    |     $$   This variable contains the PID of the
```

Minimize all open windows and show the desktop

monica@kali: ~

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


~/Castle/Cellar
[mission 29] $ pstree -p $$
bash(144160)─┬─mischievous_imp(342587)─┬─spell(342602)───sleep(342969)
             │                         ├─spell(342603)───sleep(343063)
             │                         ├─spell(342604)───sleep(343138)
             │                         └─tail(342605)
             ├─nice_fairy(342586)─┬─spell(342606)───sleep(342990)
             │                    ├─spell(342607)───sleep(343064)
             │                    ├─spell(342608)───sleep(343136)
             │                    └─tail(342609)
             ├─pstree(343139)
             └─xeyes(160617)

~/Castle/Cellar
[mission 29] $ kill 342602 342603 342604

~/Castle/Cellar
[mission 29] $ pstree -p $$
bash(144160)─┬─mischievous_imp(342587)───tail(342605)
             ├─nice_fairy(342586)─┬─spell(342606)───sleep(343894)
             │                    ├─spell(342607)───sleep(343947)
             │                    ├─spell(342608)───sleep(343988)
             │                    └─tail(342609)
             ├─pstree(343997)
             └─xeyes(160617)

~/Castle/Cellar
[mission 29] $ ls
```

monica@kali: ~

```
[mission 29] $ ls
1011_snowflake   18397_snowflake  30142_snowflake  3386_coal        41446_coal       46022_snowflake  51119_snowflake  59550_snowflake  6549_snowflake
10336_coal       1910_snowflake   30663_coal       34554_coal       41971_snowflake  46221_coal       51567_coal       59633_snowflake  7157_snowflake
10813_snowflake  19991_snowflake  30663_snowflake  35514_snowflake  42306_snowflake  46282_snowflake  52421_snowflake  59814_snowflake  724_snowflake
13654_snowflake  20674_snowflake  30720_bat_3      35643_snowflake  42854_snowflake  46891_snowflake  52648_coal       60310_snowflake  8474_snowflake
13848_coal       21164_snowflake  30777_snowflake  3780_coal        43010_snowflake  4817_snowflake   52652_snowflake  6041_snowflake   9129_snowflake
15547_coal       23100_snowflake  31099_bat_1      37871_snowflake  43289_coal       48487_snowflake  53599_snowflake  62785_coal       9314_snowflake
16855_snowflake  23580_snowflake  31432_bat_4      38271_coal       43475_snowflake  4877_snowflake   55430_snowflake  62940_snowflake  9336_snowflake
17169_snowflake  24043_coal       32694_bat_5      39584_snowflake  44654_snowflake  49047_snowflake  5690_snowflake   64047_snowflake
17618_snowflake  25038_snowflake  33048_snowflake  39800_coal       45120_snowflake  49950_snowflake  57306_snowflake  65264_snowflake
17737_snowflake  27739_bat_2      33454_snowflake  40862_snowflake  45375_snowflake  50072_snowflake  5806_snowflake   65358_snowflake

~/Castle/Cellar
[mission 29] $ rm *_coal

~/Castle/Cellar
[mission 29] $ ls
1011_snowflake   19991_snowflake  30142_snowflake  35643_snowflake  43010_snowflake  4817_snowflake   53599_snowflake  61953_snowflake  8474_snowflake
10813_snowflake  20674_snowflake  30663_snowflake  36709_snowflake  43475_snowflake  48487_snowflake  55430_snowflake  62414_snowflake  9129_snowflake
11381_snowflake  21164_snowflake  30720_bat_3      37871_snowflake  44654_snowflake  4877_snowflake   5690_snowflake   62940_snowflake  9314_snowflake
13654_snowflake  23100_snowflake  30777_snowflake  39584_snowflake  44875_snowflake  49047_snowflake  57306_snowflake  64047_snowflake  9336_snowflake
16855_snowflake  23341_snowflake  31099_bat_1      40496_snowflake  45120_snowflake  49950_snowflake  5806_snowflake   65264_snowflake
17169_snowflake  23580_snowflake  31432_bat_4      40862_snowflake  45375_snowflake  50072_snowflake  59550_snowflake  65358_snowflake
17618_snowflake  24993_snowflake  32694_bat_5      41135_snowflake  46022_snowflake  50683_snowflake  59633_snowflake  6549_snowflake
17737_snowflake  25038_snowflake  33048_snowflake  41971_snowflake  46282_snowflake  51119_snowflake  59814_snowflake  7157_snowflake
18397_snowflake  26196_snowflake  33454_snowflake  42306_snowflake  46312_snowflake  52421_snowflake  60310_snowflake  724_snowflake
1910_snowflake   27739_bat_2      35514_snowflake  42854_snowflake  46891_snowflake  52652_snowflake  6041_snowflake   758_snowflake

~/Castle/Cellar
[mission 29] $ gsh check

Congratulations, mission 29 has been successfully completed!

Killed
```

```
 | / |                                                                  | \ |
 | / |  Get ready, because Merlin is about to test your precision with sums.  | \ |
 | / |                                                                  | \ |
 | / |  Run the command ``gsh check`` to start.                         | \ |
 | / |                                                                  | \ |
 |___|                                                                  |___|
(_____)------------------------------------------------------------------(_____)


~
[mission 30] $ gsh goal

    ____________________________________________________________________
   /                                                                    \
(0)===)>◇◇◇◇◇◇◇◇◇◇◇◇◇◇◇◇◇◇◇◇◇◇◇◇◇◇◇◇◇◇◇◇◇◇◇◇◇◇◇◇◇◇◇◇◇◇<)==(0)
   \/''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''/
    (                                                                   (
     )  Mission goal                                                    )
    (   ============                                                    (
     )                                                                  )
    (   To get better in the magical art, one needs to know mental math.  (
     )                                                                  )
    (   Get ready, because Merlin is about to test your precision with sums.  (
     )                                                                  )
    (   Run the command ``gsh check`` to start.                         (
     )                                                                  )
    (                                                                   (
    /\''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''\
(0)===)>◇◇◇◇◇◇◇◇◇◇◇◇◇◇◇◇◇◇◇◇◇◇◇◇◇◇◇◇◇◇◇◇◇◇◇◇◇◇◇◇◇◇◇◇◇◇<)==(0)
   \/____________________________________________________________________/


~
[mission 30] $
```

monica@kali: ~

```
   | Mission goal                                                    |.
   \_ | ==========                                                    |.
      |                                                               |.
      | To get better in the magical art, one needs to know mental math.  |.
      |                                                               |.
      | Get ready, because Merlin is about to test your precision with sums. |.
      |                                                               |.
      | Run the command ``gsh check`` to start.                       |.
      |                                                               |.
      |_______________________________________________________________|___
      |  /                                                              /.
      \_/_______________________________________________________________/.


~/Castle/Cellar
[mission 30] $ gsh check
10 + 93 = ?? 103
28 + 48 = ?? 76
73 + 84 = ?? 157
34 + 51 = ?? 85
44 + 86 = ?? 130

Congratulations, mission 30 has been successfully completed!


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

monica@kali: ~

Applications Edit View Help

```
      |                                                                      |
      | Mission goal                                                         |
      | ============                                                         |
      |                                                                      |
      | To get better in the magical art, one needs to know mental math.     |
      |                                                                      |
      | Get ready, because Merlin is about to test you speed with products.  |
      |                                                                      |
      | Run the command ``gsh check`` to start.                              |
      |                                                                      |
      | Remark                                                               |
      | ======                                                               |
      |                                                                      |
      | There now is a time constraint.                                      |
      |                                                                      |
      | Hint                                                                 |
      | ====                                                                 |
      |                                                                      |
      | The library is rumored to contain some mathematics books and hidden volumes.
      |                                                                      |
      |                                                                      |
      | Useful commands                                                      |
      | ===============                                                      |
      |                                                                      |
      | COMMAND < FILE                                                       |
      | Replace the command's standard input by a file.                      |
      | Instead of reading lines from the keyboard device, the command will read lines from the file.
      |                                                                      |
    __)______________________________________________________________________|
()=(_______________________________________________________________________(@=()
    '______________________________________________________________________'


~
[mission 31] $
```

monica@kali: ~

```
~/Castle/Main_building/Library
[mission 31] $ ls
Greek_Latin_and_other_modern_languages  Mathematics_101  Merlin_s_office/

~/Castle/Main_building/Library
[mission 31] $ la
.How_to_cheat_for_exams  Greek_Latin_and_other_modern_languages  Mathematics_101  Merlin_s_office/

~/Castle/Main_building/Library
[mission 31] $ cat .How_to_cheat_for_exams
The book 'Mathematics_101' contains all the anwsers.
Just copy all its lines to get perfect score.

~/Castle/Main_building/Library
[mission 31] $ cat Mathematics_101
7030
210
7840
855
5760
3024
9700
294
675
1250
4416
544
6392
568
1650
4830
198
2408
2193
```

monica@kali: ~

```
1450
860
4131
620

~/Castle/Main_building/Library
[mission 31] $ gsh check
74 * 95 = ?? 7030
210
7840
855
5760
3024
9700
294
675
1250
4416
544
6392
568
1650
4830
198
2408
2193
5621
1566
6399
945
2088
798
1900
1530
```

monica@kali: ~

File Actions Edit View Help

```
6298
224
1850
750
1200
2184
84
4480
5044
783
6210
2460
3003
3360
5280
2686
1456
860
4131
620
42 * 5 = ?? 98 * 80 = ?? 45 * 19 = ?? 60 * 96 = ?? 36 * 84 = ?? 97 * 100 = ?? 42 * 7 = ?? 75 * 9 = ?? 50 * 25 = ?? 64 * 69 = ?? 8 * 68 = ?? 68 * 94 = ?? 8 * 71 = ?? 55
 * 30 = ?? 70 * 69 = ?? 66 * 3 = ?? 43 * 56 = ?? 51 * 43 = ?? 73 * 77 = ?? 54 * 29 = ?? 81 * 79 = ?? 27 * 35 = ?? 29 * 72 = ?? 21 * 38 = ?? 76 * 25 = ?? 90 * 17 = ?? 8
4 * 59 = ?? 83 * 10 = ?? 22 * 60 = ?? 9 * 21 = ?? 85 * 24 = ?? 52 * 38 = ?? 50 * 48 = ?? 43 * 53 = ?? 81 * 92 = ?? 27 * 75 = ?? 61 * 52 = ?? 95 * 100 = ?? 88 * 87 = ??
 80 * 83 = ?? 47 * 23 = ?? 94 * 19 = ?? 54 * 82 = ?? 27 * 42 = ?? 100 * 68 = ?? 74 * 91 = ?? 84 * 1 = ?? 43 * 80 = ?? 7 * 95 = ?? 13 * 64 = ?? 72 * 7 = ?? 44 * 23 = ??
 44 * 13 = ?? 89 * 81 = ?? 67 * 35 = ?? 92 * 65 = ?? 96 * 37 = ?? 11 * 66 = ?? 49 * 2 = ?? 87 * 77 = ?? 79 * 40 = ?? 36 * 95 = ?? 62 * 68 = ?? 15 * 71 = ?? 99 * 60 = ?
? 26 * 74 = ?? 44 * 96 = ?? 96 * 85 = ?? 99 * 15 = ?? 1 * 94 = ?? 39 * 81 = ?? 87 * 14 = ?? 36 * 46 = ?? 20 * 85 = ?? 50 * 63 = ?? 31 * 88 = ?? 15 * 41 = ?? 40 * 73 =
?? 96 * 1 = ?? 94 * 67 = ?? 7 * 32 = ?? 25 * 74 = ?? 75 * 10 = ?? 75 * 16 = ?? 78 * 28 = ?? 6 * 14 = ?? 64 * 70 = ?? 97 * 52 = ?? 27 * 29 = ?? 69 * 90 = ?? 82 * 30 = ?
? 33 * 91 = ?? 48 * 70 = ?? 55 * 96 = ?? 34 * 79 = ?? 26 * 56 = ?? 10 * 86 = ?? 81 * 51 = ?? 20 * 31 = ??
Congratulations, mission 31 has been successfully completed!

While you are waiting, you see a fish swimming in circles ...

  |                                    |
--+------------------------------------+--
```

monica@kali: ~

```
~
[mission 32] $ gsh goal

Mission goal
============

Merlin's old spell books are kept in his office, in the library. You need to save a list of all those spell books (and nothing else) in
a file called "inventory.txt", in the drawer ...


Useful commands
===============

COMMAND > FILE
Send the command's output to a file instead of printing it on the screen.

less FILE
display the content of a file, one page at a time

Important keybindings are
    q         quit
    Space     scroll down one page
/ STRING search for a string
    n         go to the next occurrence of the
search string

ls FILE1 ... FILEn
```

Minimize all open windows and show the desktop

monica@kali: ~

```
~/Castle/Main_building/Library/Merlin_s_office
[mission 32] $  ls -S grimoire_* > inventory.txt

~/Castle/Main_building/Library/Merlin_s_office
[mission 32] $ cat inventory.txt
grimoire_10126
grimoire_1013
grimoire_1064
grimoire_10813
grimoire_11100
grimoire_11510
grimoire_117
grimoire_11843
grimoire_133
grimoire_13748
grimoire_13757
grimoire_13784
grimoire_13927
grimoire_14130
grimoire_1428
grimoire_14319
grimoire_14937
grimoire_15557
grimoire_1591
grimoire_16009
grimoire_16065
grimoire_1612
grimoire_16171
grimoire_17320
grimoire_18127
grimoire_18351
grimoire_18772
grimoire_1892
```

```
grimoire_7162
grimoire_7359
grimoire_7407
grimoire_7817
grimoire_8812
grimoire_9017
grimoire_9213
grimoire_9538
grimoire_9801
grimoire_9816
grimoire_9854

~/Castle/Main_building/Library/Merlin_s_office
[mission 32] $ mv inventory.txt ~/Castle/Main_building/Library/Merlin_s_office/Drawer/

~/Castle/Main_building/Library/Merlin_s_office
[mission 32] $ gsh check

Congratulations, mission 32 has been successfully completed!

While you are waiting, a snake slithers by ...

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


~/Castle/Main_building/Library/Merlin_s_office
[mission 33] $  ls -S grimoire_* > inventory.txt
```

Applications

monica@kali: ~

File Actions Edit View Help

```
~
[mission 33] $ gsh goal

  __^__                                                                                                                  __^__
( ___ )------------------------------------------------------------------------------------------------------------------( ___ )
 | / |                                                                                                                  | \ |
 | / |  Mission goal
 | / |  ============
 | / |
 | / |  Merlin's old alchemy books are kept in his office, in the library. You need to output a list of all the books containing the alchemical
 | / |  compound 'gsh' (for "Glutathione").
 | / |  Beware, it can be spelled with a mix of letters in upper and lowercase.
 | / |
 | / |  Some of those books are locked, and you are not allowed to consult them. Ignore them.
 | / |
 | / |  Remark
 | / |  ------
 | / |
 | / |  Your last command should display the list of books mentioning 'gsh', and nothing else.
 | / |  In particular, you should not show the chemical compounds themselves and no error message should appear.
 | / |
 | / |
 | / |  Useful commands
 | / |  ================
 | / |
 | / |  grep STRING FILE1 ... FILEn
 | / |  Search for a string inside a file and print the corresponding lines.
 | / |  Some interesting options are
 | / |  -l : do not print the lines, but only the filenames containing
 | / |  the string
 | / |  -i : do not differentiate between uppercase and lowercase
 | / |
```

monica@kali: ~/Downloads

```
/home/monica/Downloads/gameshell/World
[mission 33] $ ls
Castle  Forest  Garden  Mountain  Stall
[mission 33] $ cd Castle/
[mission 33] $ cd Main_building/Library/Merlin_s_office/
[mission 33] $ ls -a
.
..
Drawer
candle
grimoire_AOZBMiEOYUJHzI
grimoire_AaCjYowYGHHZTfMTMvLlTH
grimoire_AdGZSukesdrmmjZKMrshThkR
grimoire_AeotRoNXxgozshbQtUWITtz
grimoire_BSpGeSDYjQRwZLIkOtWRXZGJTu
grimoire_BWALXqAwYqXRVYsLdMUZL
grimoire_BlXrhGqwhzzr
grimoire_BmuVcjhQqIwPhOLoUqGtSWYBENp
grimoire_CEhQjVnD
grimoire_CEysdvNfjrwyPbpRWNwonRUR
grimoire_DRarWehZyYZLSSWLFvgStaqTgDh
grimoire_ECOPcXjHZfJVeCkpaO
grimoire_FjpZBZTGK
grimoire_FretBUfubqDJQuJNuniUXfgDQYcl
grimoire_HSTgdRJLAHU
grimoire_IQODbmpAPhyPSuNAF
grimoire_IgNBgLuDzhOflouhZrAFbfXsliWRTJ
grimoire_JkMgzTHcbpYlNYtaivhiRB
grimoire_KIpQAUrNwfjAgqeTEVOcElC
grimoire_KajBqEArVXrvLivl
grimoire_LUaTNcqgouqmRDHihYl
grimoire_MFjZAmVt
grimoire_MTHImbYwkpQPPtmdBRyjr
grimoire_MrQWpGkXLvdGWWvrRvs
grimoire_MuMXIHRYnhtlkwRYwr
grimoire_OBooZZKkOcNWqRSzNXaLzocCR
grimoire_OSEEqxbmzFrblEJKlZTdUifymFB
grimoire_OTEmzaWJUualUWqIQXlTtAti
grimoire_OtYDxyuJeimXsuZTmBYfKvopZY
grimoire_PkYBEvbKXHkmwaEWcCEWukVNshbxefH
grimoire_QDLMXfegVSZOawjuIXOYUDZ
grimoire_QLNhvXyrB
grimoire_QMWinJvUAlIcWsdqICxTBMmiZm
grimoire_QsQXOVTkqABIgFtkBu
grimoire_RAwQYbYBm
grimoire_SJkPFLXoJP
grimoire_SRopZMGJlvwUPJqhYycd
grimoire_SVozeoITmzinR
grimoire_SYmiUlJtJfDTpNNhLqAfsViM
grimoire_TDcbEqhrJPbVMcGHSUeHTJKzxPhOPH
grimoire_TIEkiyGzMKkHufuEsmNWhlYSvo
grimoire_URCTlMbRQIrRnJmmVyPKLmVZ
grimoire_USZLbUBPbrFgsPjjyVRxDLIze
grimoire_UgLOSVsARxHhKYhQV
grimoire_VDAwiTZIJBWUndjMesWGUJD
grimoire_VEbjENDhjjIzMYpXv
grimoire_VWtjIbpcHIMGJgHjtLsVoTGfk
grimoire_VntIgpFfsPNeTGTeDTINuAEv
grimoire_WeeQiZERrBTtwRNMsrtdpHQ
grimoire_XEYpfgcrXdaeGRG
grimoire_XRGQfZQCYcQvBuexJZGFgCQndfh
grimoire_XbPwxKtXzqiDnB
grimoire_YKfQJVwkzcltIOV
grimoire_YuNjfmLtAQkqnzATQnMaixNrkMGLw
grimoire_ZIUacywoqBuslLahkops
grimoire_asGhrPOtkibH
grimoire_bQnaTGPvGadwsiSWbHvemeKMVd
grimoire_cTvxEEXlcruIrszekzkjouXxjQjy
grimoire_cVcTZlzzokWLMAbTmkFzCuic
grimoire_cZgKAxsGIkKQTEsEY
grimoire_cfAzETfQMVGfXV
grimoire_dSTDeuizYkCZEyiplfCABzq
grimoire_dxGDjDajZqsdQPSYl
grimoire_eCOBUbFnQgwhUQxYbdGeWDjDnnNG
grimoire_fDuPbnrraxXhkRP
grimoire_fQSehyzlxgAgzRiDkUasqtlgcARKE
grimoire_gbwKUVFxJCJNtTqRggh
grimoire_gukZxOjcSaB
grimoire_hDcXHgKRmaerAp
grimoire_heGxKjlkdRtV
grimoire_iLgjpRixvQTIHqEjVIxJpFHOBCo
grimoire_iOJKjnvVoT
grimoire_iWBcKCcBQISzlKjCQx
grimoire_jmIynzlTsXCoYuKirMUQSEppJOf
grimoire_lDNEWKdsALyqgTcpnbbScgE
grimoire_mVBPvuXb
grimoire_mZDZRrAKHYgkmLGgNLcJNoSW
grimoire_mlmUNgLhs
grimoire_nAprzMeoNqiHNnKnBqbToqKq
grimoire_nRmjLcYYwfFjBePGmEwhOEwPEcIwwbe
grimoire_poxskiYbBiiyLYBcNkudfEcaQeRXoL
grimoire_qDizWKIJuRleNGzPryX
grimoire_qqzOHumaLsQtdIqgKHUIQH
grimoire_rQpJawGNLPZGhCBgLlP
grimoire_rSybfwwnvsVRlpX
grimoire_tpPkbdQmqzwzHGSdoEJTAWxWitCzK
grimoire_tpeLqxfRfGLNotRqDdikldXwwgaOx
grimoire_vkljXTuUfRJALukdEssS
grimoire_vtRNRoHZurTIARnuCom
grimoire_vyQIDVwNSkpdXCAhHUowOdT
grimoire_wFosvhjZeJDSHZzkMPnbGtaldSUtqo
grimoire_wiiHDbTtRiGzDV
grimoire_wngQtODwvLTmHaiMn
grimoire_xytrfKLt
grimoire_yPinbwAlkhTUXnCqjrApxKae
grimoire_yflvDmRWlSSzZoBun
grimoire_zFtsUcOm
grimoire_zPMxxFafPNqYUKdXtKgLXIhVLah
grimoire_zkFimMLLIqTuQu
grimoire_zooFxKXmhXDHIAeRn
[mission 33] $ grep -i -l -s gsh grimoire_*
grimoire_AOZBMiEOYUJHzI
```

monica@kali: ~/Downloads

```
grimoire_FjpZBZTGK
grimoire_OBooZZKkOcNWqRSzNXaLzocCR
grimoire_OTEmzaWJUualUWqIQXlTtAti
grimoire_QsQXOVTkqABIgFtkBu
grimoire_SVozeoITmzinR
grimoire_SYmiUlJtJfDTpNNhLqAfsViM
grimoire_VWtjIbpcHIMGJgHjtLsVoTGfk
grimoire_XbPwxKtXzqiDnB
grimoire_bQnaTGPvGadwsiSWbHvemeKMVd
grimoire_cTvxEEXlcruIrszekzkjouXxjQjy
grimoire_dSTDeuizYkCZEyiplfCABzq
grimoire_eCOBUbFnQgwhUQxYbdGeWDjDnnNG
grimoire_fDuPbnrraxXhkRP
grimoire_iOJKjnvVoT
grimoire_lDNEWKdsALyqgTcpnbbScgE
grimoire_nRmjLcYYwfFjBePGmEwhOEwPEcIwwbe
grimoire_poxskiYbBiiyLYBcNkudfEcaQeRXoL
grimoire_rSybfwwnvsVRlpX
grimoire_tpPkbdQmqzwzHGSdoEJTAWxWitCzK
grimoire_vkljXTuUfRJALukdEssS
grimoire_wngQtODwvLTmHaiMn
grimoire_zkFimMLLIqTuQu
[mission 33] $ gsh check

Congratulations, mission 33 has been successfully completed!

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

monica@kali: ~

Applications File Actions Edit View Help

```
[mission 34] $ gsh goal

Mission goal
============

Merlin has turned crazy... He paces around the observatory tower and mumbles incoherently.

You need to filter out his ramblings to discover the secret key he is the only one to know.

Hint
====

It is likely that Merlin's message is riddled with errors.
To complete this mission, you have to give the secret key **using a file redirection**.


Useful commands
===============

./FILE
Run an executable file as a program. Needless to say that Merlin is executable...

COMMAND > FILE
Send standard output (stdout) for the command to a file.
(The file is overwritten.)
```

```
~/Castle/Observatory
[mission 34] $ touch error.txt

~/Castle/Observatory
[mission 34] $ ./merlin > star_chart 2> error.txt

~/Castle/Observatory
[mission 34] $ gsh check < error.txt
What is the secret key?
Congratulations, mission 34 has been successfully completed!

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

~/Castle/Observatory
[mission 35] $
```

Applications Edit View Help

monica@kali: ~

```
~
[mission 35] $ gsh goal

    _____________________________________________________________
   / \                                                           \.
  |   | Mission goal                                              |.
   \_ | ============                                              |.
      |                                                           |.
      | The door to the King's quarter is in the throne room.     |.
      | Go to the King's quarter.                                 |.
      |                                                           |.
      | Remark                                                    |.
      | ======                                                    |.
      |                                                           |.
      | Access to this part of the castle is probably restricted. |.
      |                                                           |.
      | Useful commands                                           |.
      | ===============                                           |.
      |                                                           |.
      | ls -l                                                     |.
      | List the files with their important meta-data.            |.
      |                                                           |.
      | Access permissions are listed first on each line.         |.
      |                                                           |.
      | chmod [OPTIONS] FILE                                      |.
      | Modify the permissions for the file (or directory).       |.
      |                                                           |.
      | Refer to the manual to discover which options are available. |.
      |   _____________________________________________________|___
      |  /                                                       /.
      \_/_______________________________________________________/.
```

```
~/Castle/Main_building/Throne_room
[mission 35] $ ls
Kings_quarter/
~/Castle/Main_building/Throne_room
[mission 35] $ cd Kings_quarter/
bash: cd: Kings_quarter/: Permission denied
~/Castle/Main_building/Throne_room
[mission 35] $ ls -l
total 4
drw-r--r-- 2 monica monica 4096 Dec 15 18:05 Kings_quarter/
~/Castle/Main_building/Throne_room
[mission 35] $ chmod 777 Kings_quarter/
~/Castle/Main_building/Throne_room
[mission 35] $ cd Kings_quarter/
~/Castle/Main_building/Throne_room/Kings_quarter
[mission 35] $ gsh check
Congratulations, mission 35 has been successfully completed!

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

Applications

monica@kali: ~

Edit View Help

```
~
[mission 36] $ gsh goal

  .-------------------------------------------------------------------------------------------------------.
 /  .-.                                                                                                 .-.  \
|  /   \                                                                                               /   \  |
| |\_.  |   Mission goal                                                                              |    /| |
|\|   | /|   ============                                                                            |\   | |/|
| `---' |                                                                                             | `---' |
|       |   The King is rumored to keep the combination to his safe written on a note in his room.    |       |
|       |   Find that combination.                                                                    |       |
|       |                                                                                             |       |
|       |   Remark                                                                                    |       |
|       |   ======                                                                                    |       |
|       |                                                                                             |       |
|       |   The King probably tried to make this note unreadable!                                     |       |
|       |                                                                                             |       |
|       |   Useful commands                                                                           |       |
|       |   =================                                                                         |       |
|       |                                                                                             |       |
|       |   ls -l                                                                                     |       |
|       |   Lists the files with their important meta-data.                                           |       |
|       |                                                                                             |       |
|       |   Access permissions are listed first on each line.                                         |       |
|       |                                                                                             |       |
|       |   chmod [OPTIONS] FILE                                                                      |       |
|       |   Modifies the permissions for eth file (or directory).                                     |       |
|       |                                                                                             |       |
|       |   Refer to the manual to discover which options are available.                              |       |
|       |                                                                                             |       |
|       |                                                                                             |       |
|       |-----------------------------------------------------------------------------------------------|       |
\       |                                                                                             |       /
```

```
~/Castle/Main_building/Throne_room/Kings_quarter
[mission 36] $ la
.secret_note  note

~/Castle/Main_building/Throne_room/Kings_quarter
[mission 36] $ cat .secret_note
cat: .secret_note: Permission denied

~/Castle/Main_building/Throne_room/Kings_quarter
[mission 36] $ chmod 777 .secret_note

~/Castle/Main_building/Throne_room/Kings_quarter
[mission 36] $ cat .secret_note
6356030266

~/Castle/Main_building/Throne_room/Kings_quarter
[mission 36] $ gsh check < .secret_note
What's the combination to open the King's safe?
Congratulations, mission 36 has been successfully completed!

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

monica@kali: ~

Applications File Actions Edit View Help

```
 .-----------------------------------------------------------------------------------------------------------------------------------'
/  .-.                                                                                                                              |
|  /   \                                                                                                                            |
| |\_.  |   Mission goal                                                                                                              |
|\|   | /|   ==============                                                                                                          |
| `__'  |                                                                                                                             |
|       |   The safe in the throne room contains the king's crown.                                                                    |
|       |   Steal it and store it in your chest.                                                                                      |
|       |                                                                                                                             |
|       |   Also, the base of the crown is inscribed with a magical sequence of digits. Look at those digits and remember them.       |
|       |                                                                                                                             |
|       |                                                                                                                             |
|       |   Useful commands                                                                                                           |
|       |   =================                                                                                                         |
|       |                                                                                                                             |
|       |   ls -l                                                                                                                     |
|       |   List the files with their important meta-data.                                                                            |
|       |                                                                                                                             |
|       |   Access permissions are listed first on each line.                                                                         |
|       |                                                                                                                             |
|       |   chmod [OPTIONS] FILE                                                                                                      |
|       |   Modify the permissions for the file (or directory).                                                                       |
|       |                                                                                                                             |
|       |   Refer to the manual to discover which options are available.                                                              |
|       |                                                                                                                             |
|       |                                                                                                                            /
|       |___________________________________________________________________________________________________________________________'
\       |
 \  `__'  /


~
[mission 37] $
```

monica@kali: ~

```
~/Castle/Main_building/Throne_room/Kings_quarter
[mission 37] $ cd ..

~/Castle/Main_building/Throne_room
[mission 37] $ ls
Kings_quarter/  Safe/

~/Castle/Main_building/Throne_room
[mission 37] $ cd Safe/
bash: cd: Safe/: Permission denied

~/Castle/Main_building/Throne_room
[mission 37] $ chmod 777 Safe/

~/Castle/Main_building/Throne_room
[mission 37] $ cd Safe/

~/Castle/Main_building/Throne_room/Safe
[mission 37] $ ls
crown

~/Castle/Main_building/Throne_room/Safe
[mission 37] $ cat crown
cat: crown: Permission denied

~/Castle/Main_building/Throne_room/Safe
[mission 37] $ chmod 777 crown

~/Castle/Main_building/Throne_room/Safe
```

```
~/Castle/Main_building/Throne_room/Safe
[mission 37] $ chmod 777 crown

~/Castle/Main_building/Throne_room/Safe
[mission 37] $ cat crown
  _.+._
(^\/^\/^)
 \@*@*@/
 {_287_}

~/Castle/Main_building/Throne_room/Safe
[mission 37] $ mv crown ~/Forest/Hut/Chest/

~/Castle/Main_building/Throne_room/Safe
[mission 37] $ ls

~/Castle/Main_building/Throne_room/Safe
[mission 37] $ gsh check
What are the 3 digits inscribed on the base of the crown? 287

Congratulations, mission 37 has been successfully completed!

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

```
~
[mission 38] $ gsh goal
```

Mission goal

Look for the ruby in the maze in the garden, and move it to your chest.

Hint

The filename does not contain the string "ruby". Since there aren't many files in the maze, a possible strategy is to look for all **file** (as opposed to directories), and check by hand which one contains the string "ruby".

Useful commands

find
Search files / directories from the current working directory.

Conditions may be added about names, size, modification date, etc.
An interesting condition is:
-type TYPE

cat FILE
Output the content of the file on the screen.

Applications

monica@kali: ~

Edit View Help

```
[mission 38] $ find /home/monica/gameshell.2/World/Garden/Maze -type f | grep ".r"
/home/monica/gameshell.2/World/Garden/Maze/e2280f86715cdf/37b803ed2edf8fd882f80051/035877cf/15601
/home/monica/gameshell.2/World/Garden/Maze/e2280f86715cdf/37b803ed2edf8fd882f80051/d5258a8f8daf3/38846
/home/monica/gameshell.2/World/Garden/Maze/a29224842f39c9270e/4b0c7afc/a7a508df5e609a909e0/31122
/home/monica/gameshell.2/World/Garden/Maze/a29224842f39c9270e/3f0ed20a77a8090ff138/de75e70a946/63029
/home/monica/gameshell.2/World/Garden/Maze/30a972801ad0e03e66b5a6f/e333e2c2bb1e3d/1583b74756524246b77c8/61889
/home/monica/gameshell.2/World/Garden/Maze/165049895f5693371b207c/d83d8bced4b/6760c576f0823593eb52b33/28080
~/Garden/Maze
[mission 38] $ cat e2280f86715cdf/37b803ed2edf8fd882f80051/035877cf/15601 cat e2280f86715cdf/37b803ed2edf8fd882f80051/d5258a8f8daf3/38846 cat a29224842f39c9270e/4b0c7
afc/a7a508df5e609a909e0/31122 cat a29224842f39c9270e/3f0ed20a77a8090ff138/de75e70a946/63029 cat 30a972801ad0e03e66b5a6f/e333e2c2bb1e3d/1583b74756524246b77c8/61889 cat
 165049895f5693371b207c/d83d8bced4b/6760c576f0823593eb52b33/28080
15601 stone f1794b16b7d9826180fbd68118a548d924320c92
cat: cat: No such file or directory
38846 stone b6e01b963b7c1c82b314826bcd51ce8c45e2ae6b
cat: cat: No such file or directory
31122 stone e99c88f2f7592921e24adc5c85f5500c55774c96
cat: cat: No such file or directory
63029 ruby ae4e14056db27b47e4cdf3d913ca904eca9bc5a4
cat: cat: No such file or directory
61889 stone 930d927aa1ba83923a74df54de9af51f038ac67b
cat: cat: No such file or directory
28080 stone 7d54c5f8df4c873b719aa703bf6542312066f974
~/Garden/Maze
[mission 38] $ cd a29224842f39c9270e/3f0ed20a77a8090ff138/de75e70a946/
~/Garden/Maze/a29224842f39c9270e/3f0ed20a77a8090ff138/de75e70a946
[mission 38] $ ls
63029
~/Garden/Maze/a29224842f39c9270e/3f0ed20a77a8090ff138/de75e70a946
[mission 38] $ mv 63029 ~/Forest/Hut/Chest/
```

```
63029 ruby ae4e14050bd27047e4cdf3d913ca904eca9bc5a4
cat: cat: No such file or directory
61889 stone 930d927aa1ba83923a74df54de9af51f038ac67b
cat: cat: No such file or directory
28080 stone 7d54c5f8df4c873b719aa703bf6542312066f974

~/Garden/Maze
[mission 38] $ cd a29224842f39c9270e/3f0ed20a77a8090ff138/de75e70a946/

~/Garden/Maze/a29224842f39c9270e/3f0ed20a77a8090ff138/de75e70a946
[mission 38] $ ls
63029

~/Garden/Maze/a29224842f39c9270e/3f0ed20a77a8090ff138/de75e70a946
[mission 38] $ mv 63029 ~/Forest/Hut/Chest/

~/Garden/Maze/a29224842f39c9270e/3f0ed20a77a8090ff138/de75e70a946
[mission 38] $ gsh check

Congratulations, mission 38 has been successfully completed!

You are back at the entrance of the maze ...

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

~/Garden/Maze
[mission 39] $
```

monica@kali: ~

```
~
[mission 39] $ gsh goal

 /&\/\_ .. ____________________________________________________________________________________________________ ._/\/&\
(      _ ||                                                                                                  || _      )
 \_/\/  ||   Mission goal                                                                                     ||  \/\_/
        ||   ============                                                                                     ||
        ||                                                                                                    ||
        ||   Combine several commands with "|" in order to find the diamond in the maze, and move it to your chest.   ||
        ||                                                                                                    ||
        ||                                                                                                    ||
        ||   Remark                                                                                           ||
        ||   ======                                                                                           ||
        ||                                                                                                    ||
        ||   The filename doesn't contain the string "diamond". You need to find a file that contains the string "diamond".   ||
        ||                                                                                                    ||
        ||                                                                                                    ||
        ||   Useful commands                                                                                  ||
        ||   ================                                                                                 ||
        ||                                                                                                    ||
        ||   find                                                                                             ||
        ||   Search files from the current working directory.                                                 ||
        ||   Conditions on the file may be added about filenames, size, modification date, etc.               ||
        ||                                                                                                    ||
        ||   grep [OPTIONS] STRING FILE1 ... FILEn                                                            ||
        ||   Search for a string inside the files.                                                            ||
        ||                                                                                                    ||
        ||   Useful option:                                                                                   ||
        ||   -l only print the names of files containing the string.                                          ||
        ||                                                                                                    ||
        ||   xargs COMMAND                                                                                    ||
        ||   read lines from stdin and run the command                                                        ||
        ||   COMMAND LINE1 LINE2 ... LINEn                                                                    ||
```

```
monica@kali: ~

|       |   read lines from stdin and run the command                                                    |       |
|       |   COMMAND LINE1 LINE2 ... LINEn                                                                |       |
|       |   ``xargs`` is particularly useful after a ``|`` redirection.                                  |       |
|       |                                                                                                |       |
|       |────────────────────────────────────────────────────────────────────────────────────────────────|       |
\       |                                                                                                |       /
 \ __ ,/                                                                                                \ __ ,/
  `--'                                                                                                   `--'

~/Garden/Maze
[mission 39] $ find . -type f | xargs grep -i -l diamond
./93711bbb4/eda03a84dc469fa/79a023f74fb08b19c778017

~/Garden/Maze
[mission 39] $ mv 93711bbb4/eda03a84dc469fa/79a023f74fb08b19c778017 ~/Forest/Hut/Chest/

~/Garden/Maze
[mission 39] $ gsh check

Congratulations, mission 39 has been successfully completed!


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

(0)
~/Garden/Maze
[mission 40] $
```

monica@kali: ~

```
~
[mission 40] $ gsh goal

                                                                                                                                                                  .___.
                                                                                                                                                                 /   .  \
                                                                                                                                                                |\_/|    |
                                                                                                                                                                |   |   /|
 ._____________________________________________________________________________________________________________________________________________________.'|
 /  .-.                                                                                                                                                          |
|  /   \                                                                                                                                                          |
| |\_.  |   Mission goal                                                                                                                                            |
|\|  | /|   ═══════════                                                                                                                                            |
| `___.' |                                                                                                                                                          |
|        |   Next to the castle, there is a merchant stall. People often buy on credit and reimburse their debt when they can.                                          |
|        |   The shopkeeper keeps books on everyone's debt on a scroll. Whenever someone pays his debt, he inscribes "PAID" next to the corresponding                     |
|        |   transaction.                                                                                                                                            |
|        |                                                                                                                                                           |
|        |   Combine several commands with ``|`` in order to find the King's debt.                                                                                    |
|        |                                                                                                                                                           |
|        |   Remark                                                                                                                                                  |
|        |   ══════                                                                                                                                                  |
|        |                                                                                                                                                           |
|        |   You are only allowed 3 commands to find the King's debt.                                                                                                |
|        |   You can always reset the counter with `gsh reset`, but the whole stall and the debts of everyone will be re-generated as well.                                |
|        |                                                                                                                                                           |
|        |                                                                                                                                                           |
|        |   Hint                                                                                                                                                    |
|        |   ═══                                                                                                                                                     |
|        |                                                                                                                                                           |
|        |   When there are no sub-directories, an alternative to ``find . -name '*boring_object*'`` is to use `ls` and filter the result with grep:                  |
|        |   $ ls | grep "boring_object"                                                                                                                                     |
|        |                                                                                                                                                           |
|        |                                                                                                                                                           |
|        |   Useful commands                                                                                                                                         |
```

monica@kali: ~

```
 / . .
|  /  \
| |\_.  |   Mission goal
|\|  | /|   ═══════════
| `__' |

|       |   Next to the castle, there is a merchant stall. People often buy on credit and reimburse their debt when they can.
|       |   The shopkeeper keeps books on everyone's debt on a scroll. Whenever someone pays his debt, he inscribes "PAID" next to the corresponding
|       |   transaction.
|       |
|       |   Combine several commands with ``|`` in order to find the King's debt.
|       |
|       |   Remark
|       |   ──────
|       |
|       |   You are only allowed 3 commands to find the King's debt.
|       |   You can always reset the counter with `gsh reset`, but the whole stall and the debts of everyone will be re-generated as well.
|       |
|       |
|       |   Hint
|       |   ────
|       |
|       |   When there are no sub-directories, an alternative to ``find . -name '*boring_object*'`` is to use `ls` and filter the result with grep:
|       |   $ ls | grep "boring_object"
|       |
|       |
|       |   Useful commands
|       |   ═══════════════
|       |
|       |   grep [OPTIONS] STRING FILE1 ... FILEn
|       |   Filter the files lines, keeping only those that contain the given string.
|       |   If no file is given, ``grep`` uses stdin.
|       |
|       |   Useful option
|       |   -v : only show the lines that **do not contain** the string.
```

monica@kali: ~

File Actions Edit View Help

```
|       ├──────────────
```

monica@kali: ~

```
~
[mission 41] $ gsh goal

()=(                                                                                                  (@=()
    '                                                                                                   '|
      |                                                                                                 |
      | Mission goal                                                                                    |
      | ============                                                                                    |
      | Combine several commands with ``|`` in order to find the number of unpaid items.                |
      |                                                                                                 |
      | Remark                                                                                          |
      | ======                                                                                          |
      |                                                                                                 |
      | You are only allowed a single command.                                                          |
      |                                                                                                 |
      | You can always reset the counter with `gsh reset`, but the whole stall will be re-generated.    |
      |                                                                                                 |
      |                                                                                                 |
      | Useful commands                                                                                 |
      | ===============                                                                                 |
      |                                                                                                 |
      | grep [OPTIONS] STRING FILE1 ... FILEn                                                           |
      | Filter the files lines, keeping only those that contain the given string.                       |
      | If no file is given, the command uses stdin.                                                    |
      |                                                                                                 |
      | Useful option                                                                                   |
      | -v : only show the lines that **do not contain** the string.                                    |
      |                                                                                                 |
      | wc FILE                                                                                         |
      | Count the number of lines / words / characters in a file                                        |
      | If no file is given, ``wc`` counts lines / words / characters on stdin.                         |
    __)_________________________________________________________________________________________________|
```

/home/monica

monica@kali: ~

File Actions Edit View Help

```
 ____________________________________________________________________________________________
/  __                                                                                      \
|  /  \   Mission goal                                                                      |
|\ \   |  ==========                                                                        |
| \___/|                                                                                    |
|      |  Combine several commands with ``|`` in order to find the number of unpaid items.   |
|      |                                                                                    |
|      |  Remark                                                                            |
|      |  ======                                                                            |
|      |                                                                                    |
|      |  You are only allowed a single command.                                            |
|      |                                                                                    |
|      |  You can always reset the counter with `gsh reset`, but the whole stall will be re-generated.  |
|      |                                                                                    |
|      |  Useful commands                                                                   |
|      |  ===============                                                                   |
|      |                                                                                    |
|      |  grep [OPTIONS] STRING FILE1 ... FILEn                                             |
|      |  Filter the files lines, keeping only those that contain the given string.         |
|      |  If no file is given, the command uses stdin.                                      |
|      |                                                                                    |
|      |  Useful option                                                                     |
|      |  -v : only show the lines that **do not contain** the string.                      |
|      |                                                                                    |
|      |  wc FILE                                                                           |
|      |  Count the number of lines / words / characters in a file                          |
|      |  If no file is given, ``wc`` counts lines / words / characters on stdin.           |
|      |                                                                                    |
 \     |____________________________________________________________________________________|
  \___/                                                                                     \___/

(0)
~/Stall
```

```
monica@kali: ~
File  Actions  Edit  View  Help
|      |                                                                      |      |
|      | Useful option                                                        |      |
|      |  -v : only show the lines that **do not contain** the string.        |      |
|      |                                                                      |      |
|      |  wc FILE                                                             |      |
|      |  Count the number of lines / words / characters in a file            |      |
|      |  If no file is given, ``wc`` counts lines / words / characters on stdin.  |      |
|      |                                                                      |      |
 \     |______________________________________________________________________|     /
  \___/                                                                        \___/

(0)
~/Stall
[mission 41] $ ls | xargs grep -v "PAID" | wc
     67     598    5992
(1)
~/Stall
[mission 41] $ gsh check
How many unpaid items are there? 67

Congratulations, mission 41 has been successfully completed!


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


~/Stall
[mission 42] $
```

monica@kali: ~

Applications Edit View Help

```
[mission 42] $ gsh goal

()=(                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                )
'
|
| Mission goal
| ═══════════
|
| A secret message has been found, it is kept in the drawer in Merlin's office. It was probably enciphered using a Caesar shift cipher.
|
| Decrypt it by making an exhaustive search from the command line.
|
| Hint
| ────
|
| All other secret messages that have been found were using a shift between 10 and 16.
|
|
| Useful commands
| ═══════════════
|
| tr STRING1 STRING2
| Replace each character STRING1[i] by STRING2[i] on the standard input, and output the result.
| Remark: ``tr`` is an abbreviation for "translate".
|
| Example: if
| STRING1 = "abcdef"
| STRING2 = "klmnop"
| the file will be output with the following substitution (other characters are left unchanged)
| a → k b → l c → m
| d → n e → o f → p
|
| Note: instead of "abcdefg", it is possible to write "a-g".
```

monica@kali: ~

```
~/Castle/Main_building/Library/Merlin_s_office/Drawer
[mission 42] $ tr a-z l-za-m < secret_message
fcpc gq kw ugjj:
wms ugjj ecr kw afcqr, ylb ctcpwrfgle gr amlryglq.
rfgq afcqr gq gl rfc acjjyp, ylb rfc umpb rm kyic
gr pc-ynncyp gq: zmcm
kcpjgl rfc clafylrcp

~/Castle/Main_building/Library/Merlin_s_office/Drawer
[mission 42] $ tr a-z m-za-n < secret_message
gdqd hr lx vhkk:
xnt vhkk fds lx bgdrs, zmc dudqxsghmf hs bnmszhmr.
sghr bgdrs hr hm sgd bdkkzq, zmc sgd vnqc sn lzjd
hs qd-zoodzq hr: andn
ldqkhm sgd dmbgzmsdq

~/Castle/Main_building/Library/Merlin_s_office/Drawer
[mission 42] $ tr a-z n-za-o < secret_message
here is my will:
you will get my chest, and everything it contains.
this chest is in the cellar, and the word to make
it re-appear is: boeo
merlin the enchanter

~/Castle/Main_building/Library/Merlin_s_office/Drawer
[mission 42] $ gsh check
What's the key that will make Merlin's chest to appear?
boeo

Congratulations, mission 42 has been successfully completed!

   \ : /     \ : /     \ : /     \ : /     \ : /
```