Progetto finale modulo 2

```
Mission goal

Translate text

Translate text

Translate text

Doll doc

Go to the top of the main tower of the castle.
```

```
[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 goal

Go the castle's cellar.
```

```
[mission 2] $ pwd
/home/kali/gameshell/World/Castle/Main_tower/First_floor/Second_floor/Top_of_the_tower
[mission 2] $ ls
[mission 2] $ cd 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
```

```
Mission goal

Translate text

Go back to the starting location and then go to the throne room using only two commands.
```

```
[mission 3] $ pwd
/home/kali/gameshell/World/Castle/Main_building/Throne_room
[mission 3] $ cd
[mission 3] $ cd Castle/Main_building/Throne_room
[mission 3] $ gsh check
```

```
Mission goal

These placeholders can be used to delay the current working directory.

Build a "Hut" in the forest, and then build a "Chest" in the hut.
```

```
~/Castle/Main_building/Throne_room
[mission 4] $ cd
[mission 4] $ ls
Castle Forest Garden Mountain Stall
[mission 4] $ cd forest
bash: cd: forest: No such file or directory haracter '7' sland
[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] $ gsh check
Congratulations, mission 4 has been successfully completed!
```

```
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.
```

```
//Forest/Hut
[mission 5] $ cd

// The character ? stands for any sing
[mission 5] $ cd Castle/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] $ ls
carrel_of_apples bat_1 bat_2

// Castle/Cellar
[mission 5] $ gsh check
Congratulations, mission 5 has been successfully completed!
```

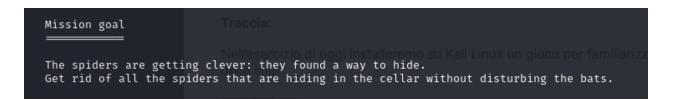
Collect all the coins that you can find in the garden in front of the castle, and put them in your chest in your hut in the forest.

```
~/Castle/Cellar
[mission 6] $ cd
[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 ~/Forest/Hut/Chest/
~/Garden
[mission 6] $ ghs check
Command 'ghs' not found, did you mean:
  command 'gss' from deb libgss-dev
 command 'ghc' from deb ghc
command 'gh' from deb gh
command 'gjs' from deb gjs
 command 'gs' from deb ghostscript
  command 'ghb' from deb handbrake
Try: sudo apt install <deb name>
~/Garden
[mission 6] $ gsh check
Congratulations, mission 6 has been successfully completed!
```

Collect all the coins hidden in the garden in front of the castle, and put them in your chest (in your hut in the forest).

```
Talsation 8) $ poof
//home/kall/gameshell./Meorid
//home/kall/game
```

```
~/Castle/Cellar
[mission 8] $ rm -v *spider*
```



~/Castle/Cellar [mission 9] \$ rm -v .*spider*

Missione 10

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.

```
~/Castle/Great_hall
[mission 10] $ cp *standard_* ~/
.bashrc .lesshst Castle/ Forest/ Garden/ Mountain/ Stall/

~/Castle/Great_hall
[mission 10] $ cp *standard_* ~/Forest/Hut/Chest/

~/Castle/Great_hall
[mission 10] $ gsh check

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



Missione 12

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.

```
[mission 12] $ cd Castle/
Cellar/
            Great hall/
                         Main_building/ Main_tower/
                                                   Observatory/
[mission 12] $ cd Castle/
Cellar/
            Great_hall/
                         Main_building/ Main_tower/
                                                   Observatory/
[mission 12] $ cd Castle/Main_tower/First_floor/
[mission 12] $ ls
Second_floor/ painting_QXsnrnOE painting_dtNTmhUi painting_ndHTnpBd
~/Castle/Main_tower/First_floor
[mission 12] $ ls -l
total 16
drwxr-xr-x 3 kali kali 4096 Dec 15 19:40 Second_floor/
-rw-r--r-- 1 kali kali 1054 Sep 24 1997 painting_QXsnrnOE
-rw-r--r-- 1 kali kali 1503 Nov 12 2013 painting_dtNTmhUi
-rw-r--r-- 1 kali kali 1455 Jun 25 1984 painting_ndHTnpBd
```

```
Nostradamus predicted a spectacular star conjunction on the 12-20-2004. But what will the day of the week be on that date?

When you have it, run the command `gsh check`.
```

```
~/Castle/Main_tower/First_floor
[mission 13] $ cal 2004
                           2004
     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
                                 5 6 7
                           3 4
                                               1
            8
              9 10
                     8 9 10 11 12 13 14
                                               8
                                                  9 10 11 12 13
      6
11 12 13 14 15 16 17
                     15 16 17 18 19 20 21
                                           14 15 16 17 18 19 20
18 19 20 21 22 23 24
                     22 23 24 25 26 27 28 21 22 23 24 25 26 27
25 26 27 28 29 30 31
                     29
                                           28 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
               2 3
                                                     2
            1
                                        1
                                                  1
                                                       3 4 5
      6
            8
              9 10
                      2 3 4 5
                                 6
                                       8
                                            6
                                                  8
                                                    9 10 11 12
11 12 13 14 15 16 17
                      9 10 11 12 13 14 15
                                           13 14 15 16 17 18 19
18 19 20 21 22 23 24
                    16 17 18 19 20 21 22
                                          20 21 22 23 24 25 26
25 26 27 28 29 30
                     23 24 25 26 27 28 29
                                          27 28 29 30
                     30 31
        July
                            August
                                                September
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
              9 10
                     8 9 10 11 12 13 14
                                            5 6
  5
      6
            8
                                                  7
                                                    8 9 10 11
11 12 13 14 15 16 17
                    15 16 17 18 19 20 21
                                          12 13 14 15 16 17 18
18 19 20 21 22 23 24
                     22 23 24 25 26 27 28 19 20 21 22 23 24 25
25 26 27 28 29 30 31
                    29 30 31
                                           26 27 28 29 30
                           November
     October 0
                                                 December
Su Mo Tu We Th Fr Sa
                     Su Mo Tu We Th Fr Sa Su Mo Tu We Th Fr Sa
                                 4 5 6
               1
                 2
                         1
                            2
                              3
                                                     1 2 3 4
               8
                 9
                         8
                            9 10 11 12 13
                                            5 6
                                                       9 10 11
      5
         6
                                                     8
10 11 12 13 14 15 16
                     14 15 16 17 18 19 20
                                          12 13 14 15 16 17 18
17 18 19 20 21 22 23
                     21 22 23 24 25 26 27
                                          19 20 21 22 23 24 25
24 25 26 27 28 29 30
                                           26 27 28 29 30 31
                     28 29 30
31
~/Castle/Main_tower/First_floor
[mission 13] $ gsh check
What was the day of the week for the 12-20-2004?
 1 : Monday
 2 : Tuesday
 3 : Wednesday
 4 : Thursday
 5 : Friday
 6 : Saturday
 7 : Sunday
Your answer: 1
Congratulations, mission 13 has been successfully completed!
```

10

Missione 15

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.

Create an alias "journal" in order to easily edit your journal file wherever you are.

Missione 17

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).

```
~/Castle/Cellar
[mission 17] $ cd ~/Castle/Cellar/.Lair_of_the_spider_queen\ boINZJVnEzhDeMJR TWxNWDYoGtSOvHeo/
~/Castle/Cellar/.Lair_of_the_spider_queen boINZJVnEzhDeMJR TWxNWDYoGtSOvHeo
[mission 17] $ la
QSNCLVLjyjqMvCBd_spider_queen_iRLzQQxbHoDEUxdf dwZiUBAeyXyytIPe_baby_bat_ewYqvkxKEYlRmGjY
~/Castle/Cellar/.Lair_of_the_spider_queen boINZJVnEzhDeMJR TWxNWDYoGtSOvHeo
[mission 17] $ rm QSNCLVLjyjqMvCBd_spider_queen_iRLzQQxbHoDEUxdf
~/Castle/Cellar/.Lair_of_the_spider_queen boINZJVnEzhDeMJR TWxNWDYoGtSOvHeo
[mission 17] $ gsh checl
Error: unknown gsh command 'checl'.
Jse one of the following commands: check, goal, help, reset
~/Castle/Cellar/.Lair_of_the_spider_queen boINZJVnEzhDeMJR TWxNWDYoGtSOvHeo
[mission 17] $ gsh check
Perfect, it took you only 18 seconds to complete this mission!
Congratulations, mission 17 has been successfully completed!
```

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.

```
~/Castle/Cellar/.Lair_of_the_spider_queen boINZJVnEzhDeMJR TWxNWDYoGtSOvHeo
[mission 18] $ xeyes&
[2] 230063

~/Castle/Cellar/.Lair_of_the_spider_queen boINZJVnEzhDeMJR TWxNWDYoGtSOvHeo
[mission 18] $ xeyes
^C
```

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/kali/gameshell.1/World/Garden/Maze

~/Garden/Maze/4aa2c35e1ad5341b2cbafc43f/cc932741f5a2b3dfd1250e742c91a/a4649d36eced2c980 [mission 19] \$ ls 00000_copper_coin_00000

~/Garden/Maze/4aa2c35e1ad5341b2cbafc43f/cc932741f5a2b3dfd1250e742c91a/a4649d36eced2c980 [mission 19] \$ mv 00000_copper_coin_00000 ~/Forest/Hut/Chest/

Missione 20

Find the silver coin in the maze in the garden and move it to your chest using the shell.



```
~/Garden/Maze
[mission 20] $ mv 11f0ef90/50db2434b4e5010257a/7bd16dbe21eeb4cc0f07/00000_silver_coin_00000 ~/Forest/Hut/Chest/
~/Garden/Maze
[mission 20] $ gsh check
Congratulations, mission 20 has been successfully completed!and, || gloco pub essere lancato con || comando bash game
```

Find the gold coins in the maze hidden in the garden and move them to your chest.

```
1111 directories, 2 files

-/Garden/Maze
[mission 21] $ find -/Garden/Maze/ -name *coin*
[mission 21] $ find -/Garden/Maze/ -name *coin*
[mission 21] $ find -/Garden/Maze/ -name *coin*
[mission 21] $ find -/Garden/Maze/ -name *in, 2*

-/Garden/Maze
[mission 21] $ find -/Garden/Maze/ -name *in, 2*

-/Mome/kali/gameshell.1/World/Garden/Maze/1243953794970a2e9b3/16c445c11ad885d293cf744eff/8694d7e08535f40e/gold_coin_1 -/Forest/Hut/Chest/

-/Garden/Maze
[mission 21] $ my /home/kali/gameshell.1/World/Garden/Maze/242953794970a2e9b3/16c445c11ad885d293cf744eff/8694d7e08535f40e/gold_coin_1 -/Forest/Hut/Chest/

-/Garden/Maze
[mission 21] $ my /home/kali/gameshell.1/World/Garden/Maze/2429535794970a
```

Missione 22

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.

```
-/Mountain/Cave [mission 22] $ cd Book_of_potions/

-/Mountain/Cave/Book_of_potions [mission 22] $ 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 22] $ head 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 11 |
10. Toadstool stew | page 12 |
```

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

Per installare il gioco GameShell
connettività ad internet prima e il
3) Let it sit for five minutes and drink while hot.

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

Congratulations, mission 22 has been successfully completed and, il g

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.

[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!

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.

[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. Crush 2 scoops of lacewing flies to a fine paste. 8) Add 2 measures of the crushed lacewings to the cauldron. 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!

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.

```
~/Mountain/Cave
[mission 25] $ cat Book_of_potions/page_03 Book_of_potions/page_04 | tail -n 16
1) Fill a cauldron with used bath water.
2) Put a moderately large frog in the water.
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!
```

20

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.

```
~/Mountain/Cave
[mission 26] $ head -n 6 Book_of_potions/page_13 | tail -n 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!
```

Missione 27

A mischievous imp cast a spell that puts smudges of coal everywhere in the castle. Find this spell and remove it.

```
ps
PID TTY
TIME CMD
164761 pts/1 00:00:04 zsh
166048 pts/1 00:00:00 bash
166258 pts/1 00:00:02 bash
352460 pts/1 00:00:00 spell
353380 pts/1 00:00:00 ps
```

~/Mountain/Cave [mission 27] \$ kill 352460

```
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
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
                 list available signals
Clear the screen.
The keybinding "Control-L" does the same and is often quicker to use in the terminal.
Details
By default ``kill`` sends the "TERM" signal to the processes (TERM stands for "termination"). Processes may ignore some signals, but the "KILL" signal cannot be ignored!
```

```
kill -s TERM 362909
You'll need to do better than that to kill my spell!
```

```
~/Mountain/Cave
[mission 28] $ kill -s KILL 368778
```

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!

```
~/Castle/Cellar
[mission 29] $ pstree -p $$
bash(166258) ___mischievous_imp(675034) ___spell(675049) ___sleep(675430)
                                            -spell(675052)---sleep(675281)
                                             -spell(675053)---sleep(675355)
                                            Ltail(675055)
                                       —spell(675043)——sleep(675429)
—spell(675045)——sleep(675282)
—spell(675046)——sleep(675356)
               —nice_fairy(675033)—
                                        -tail(675048)
                -pstree(675431)
~/Castle/Cellar
[mission 29] $ kill -s 675049 675052 675053
bash: kill: 675049: invalid signal specification
~/Castle/Cellar
[mission 29] $ kill -s KILL 675049 675052 675053
~/Castle/Cellar
[mission 29] $ rm *coal*
~/Castle/Cellar
[mission 29] $ gsh check
Congratulations, mission 29 has been successfully completed!
Killed
```

```
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

23 + 40 = ?? 63

90 + 36 = ?? 126

26 + 70 = ?? 96

33 + 55 = ?? 88

11 + 66 = ?? 77

Congratulations, mission 30 has been successfully completed!
```

| Mission goal Debner | Traccia: |
|---|-------------------|
| 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 | |
| ₩8D4 - Consegna | |
| There now is a time constraint. | |
| Hint enchilark M2 | |
| Dicci come sta andando! The library is aumonad to contain come mathematics backs and hidden values. | |
| The library is rumored to contain some mathematics books and hidden volumes. | |
| Useful commands | |
| <u> </u> | |
| COMMAND < FILE Replace the command's standard input by a file. Instead of reading lines from the keyboard device, the command will read lin | es from the file. |

| ~/Castle/Cellar | | |
|---|---|--|
| -/Castle/Main_building/Library [mission 31] % Is -a .///bow_to_cheat_for_exams Greek_Latin_and_other_modern_languages Mathe | | |
| -/Castle/Main_building/Library [mission 31] \$ cat .How_to_cheat_for_exams The book 'Mathematics_1021' contains all the anwsers. Just copy all its lines to get perfect score. | | |
| 34 - ?? 44 * 19 - ?? 96 * 79 - ?? 72 * 78 - ?? 100 * 69 - ?? 85 * 82 - ?? 92 * ? 82 * 14 = ?? 87 * 4 = ?? 90 * 100 - ?? 78 * 25 - ?? 91 * 12 - ?? 48 * 28 - ?? * 54 - ?? 53 * 6 - ?? 43 * 85 - ?? 52 * 52 - ?? 31 * 41 - ?? 13 * 13 - ?? 35 * | 53 * 55 = 77 72 * 99 = 77 14 * 55 = 77 63 * 76 = 77 58 * 58 = 77 1 * 36 = 77 25 * 62 = 77 1 * 89 = 77 56 * 24 = 77 7 * 2 - 77 25 * 62 = 77 1 * 89 = 77 56 * 24 = 77 7 * 2 - 77 68 * 58 = 77 11 * 23 = 77 74 * 3 = 77 64 * 72 = 77 88 * 63 = 77 68 * 48 = 77 7 * 78 5 * 78 7 7 7 7 8 7 8 7 8 7 8 7 7 7 8 8 7 8 | 18 * 23 - ?? 85 * 98 - ?? 10 * 50 - ? • 95 = ?? 50 * 13 = ?? 73 * 25 = ?? 43 - ?? 26 * 75 - ?? 27 * 82 - ?? 77 * 1 |
| While you are waiting, you see a fish swimming in circles | | |
| V (3) MS. Security Operation & Threat In | | |

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..

```
| Castle/Main_publishery/Merlin_s_office | Indicate | I
```

Missione 33

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

```
-/Castle/Main_building/library/Merlin_s_office
[mission 33] $ 1s

grimoire_licyMcAcc3pGEXUS
grim
```

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.

```
-/Castle/Observatory
[mission 3k] $ ./merlin > merlin_stdout.txt
WyFODgolfMRNqsyMuxQECItygPpeOjronnsTignlkECOsmhstDvjoEBMQQhTyjoAamaBZXQPlZsqDQGcufKPYqaFOssNFXjmbXnmyfKdclbGgZBzOrieUjRtuqKtktFueTiicsgQmKGTgqpemeIkvkIurfAZeeKsgLYzsRFnwqQiTyyrnzModLotTKbbhYzgFNMjjRNe
-/Castle/Observatory
[mission 3k] $ cat merlin_stdout.txt
THESCGETKEYISONSTDERR
-/Castle/Observatory
[mission 3k] $ ./merlin > merlin_stdout.txt

Installazione:
THESCGETKEYISONSTDERR
-/Castle/Observatory
[mission 3k] $ ./merlin_stderr.txt

WyFODgolfMRNqsyMuxQECItygPpeOjronnsTignlkECOsmhstDvjoEBMQQhTyjoAamaBZXQPlZsqDQGcufKPYqaFossNFXJmbxmyfKdclbGgZBzOrieUjRtuqKtkTpueTiicsgQmKGTgqpemeIkvkIurfAZeeKsgLYzsRFnwQQiTyyrnzModLotTKbbhYzgFNMjjRNe
-/Castle/Observatory
[mission 3k] $ cat merlin_stderr.txt

WyFODgolfMRNqsyMuxQECItygPpeOjronnsTignlkECOsmhstDvjoEBMQQhTyjoAamaBZXQPlZsqDQGcufKPYqaFossNFXJmbxmyfKdclbGgZBzOrieUjRtuqKtkTpueTiicsgQmKGTgqpemeIkvMIurfAZeeKsgLYzsRFnwQiTyyrnzModLotTKbbhYzgFNMjjRNe
-/Castle/Observatory
[mission 3k] $ gain beek < merlin_stderr.txt

WyFODgolfMRNqsyMuxQECItygPpeOjronnsTignlkECOsmhstDvjoEBMQQhTyjoAamaBZXQPlZsqDQGcufKPYqaFossNFXJmbxmyfKdclbGgZBzOrieUjRtuqKtkTpueTiicsgQmKGTgqpemeIkvMIurfAZeeKsgLYzsRFnwQiTyyrnzModLotTKbbhYzgFNMjjRNe
-/Castle/Observatory
[mission 3k] $ gain beek < merlin_stderr.txt

WyFODgolfMRNqsyMuxQECItygPpeOjronnsTignlkECOsmhstDvjoEBMQQhTyjoAamaBZXQPlZsqDQGcufKPYqaFossNFXJmbxmyfKdclbGgZBzOrieUjRtuqKtkTpueTiicsgQmKGTgqpemeIkvMIurfAZeeKsgLYzsRFnwQiTyyrnzModLotTKbbhYzgFNMjjRNe
-/Castle/Observatory
[mission 3k] $ gain beek < merlin_stderr.txt

WyFODgolfMRnqsyMuxQECItygPpeOjronnsTignlkECOsmhstDvjoEBMQQhTyjoAamaBZXQPlZsqDQGcufKPYqaFossNFXJmbxmyfKdclbGgZBzOrieUjRtuqKtkTpueTiicsgQmKGTgqpemeIkvMIurfAZeeKsgLYzsRFnwQiTyyrnzModLotTKbbhYzgFNMjjRNe
-/Castle/Observatory
[mission 3k] $ gain beek < merlin_stderr.txt

WyFODgolfMRnqsyMuxQECItygPpeOjronnsTignlkECOsmhstDvjoEBMQQhTyjoAamaBZXQPlZsqDQGcufKPYqaFossNFXJmbxmyfKdclbGgZBzOrieUjRtuqKtkTpueTiicsgQmKGTgqpemeIkvMIurfAZeeKsgLYzsRFnwQiTyyrnzModLotTKbbhYzgFNMjjRNe
-/Castle/Observato
```

Missione 35

The door to the King's quarter is in the throne room. Go to the King's quarter.

```
~/Castle/Observatory
[mission 35] $ cd ~/Castle/Main_building/Throne_room/
~/Castle/Main_building/Throne_room
[mission 35] $ ls -l
total 4
drw-r--r-- 2 kali kali 4096 Dec 15 19:40 Kings_quarter/
```

The King is rumored to keep the combination to his safe written on a note in his room. Find that combination.

```
~/Castle/Main_building/Throne_room/Kings_quarter
[mission 36] $ ls -la
total 16
drwxrwxrwx 2 kali kali 4096 Dec 16 23:01
drwxr-xr-x 3 kali kali 4096 Dec 15 19:40 ../
--w----- 1 kali kali 10 Dec 16 23:04 .secret_note
-rw-r--r-- 1 kali kali 11 Dec 16 23:04 note
~/Castle/Main_building/Throne_room/Kings_quarter
[mission 36] $ chmod 777 .secret_note
~/Castle/Main_building/Throne_room/Kings_quarter
[mission 36] $ cat .secrt
cat: .secrt: No such file or directory
~/Castle/Main_building/Throne_room/Kings_quarter
[mission 36] $ cat .secret_note
393489096
~/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!
```

The safe in the throne room contains the king's crown. Steal it and store it in your chest.

Installazione:

Also, the base of the crown is inscribed with a magical sequence of digits. Look at those digits and remember them.

```
~/Castle/Main_building/Throne_room/Kings_quarter
[mission 37] $ cd ..
~/Castle/Main_building/Throne_room
[mission 37] $ ls -la
total 16
drwxr-xr-x 4 kali kali 4096 Dec 16 23:06 ./
drwxr-xr-x 4 kali kali 4096 Dec 15 19:40 .../
drwxrwxrwx 2 kali kali 4096 Dec 16 23:01 🚾
d——— 2 kali kali 4096 Dec 16 23:06 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
[mission 37] $ cat crown
                jgs
(^\\/^\/^)
 \a*a*a/
{_159_}
~/Castle/Main_building/Throne_room/Safe
[mission 37] $ mv crown ~/Forest/Hut/Chest/
~/Castle/Main_building/Throne_room/Safe
[mission 37] $ gsh check
What are the 3 digits inscribed on the base of the crown? 159
Congratulations, mission 37 has been successfully completed!
```

30

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

Combine several commands with "|" in order to find the diamond in the maze, and move it to your chest.

```
~/Garden/Maze
[mission 39] $ find . -type f -exec grep -l diamond {}+
find: missing argument to `-exec'

~/Garden/Maze
[mission 39] $ find . -type f -exec grep -l diamond {}+
./87ad9ad0f35977a/5612856e745/de0418d9fc82c8dc661af64aa18

~/Garden/Maze
[mission 39] $ cat ./87ad9ad0f35977a/5612856e745//de0418d9fc82c8dc661af64aa18
de0418d9fc82c8dc661af64aa18 diamond 0a7dc9850313277f234cb61dfa174db1a7b0f01b

~/Garden/Maze
[mission 39] $ mv ./87ad9ad0f35977a/5612856e745//de0418d9fc82c8dc661af64aa18 ~/Forest/Hut/Chest/
~/Garden/Maze
[mission 39] $ gsh check

Congratulations, mission 39 has been successfully completed!
```

```
[mission 40] $ find . -type f -exec grep -l king {} +
./0ff675149f24_s_c_r_o_l_l_0ff675149f249564
(1)
~/Stall
[mission 40] $ grep 'king' ./0ff675149f24_s_c_r_o_l_l_0ff675149f249564 | grep -v paid Lubin Messonnier bought a walking stick for 6 coppers -- PAID.
Amin Métivier bought a walking stick for 5 coppers -- PAID.
Ode Marchand bought a walking stick for 3 coppers -- PAID.
Alaric Larsonneur bought a walking stick for 2 coppers -- PAID.
Berthe Poudevigne bought a walking stick for 6 coppers -- PAID.
Clovis the Bold bought a walking stick for 2 coppers -- PAID.
Hisham Coulomb bought a walking stick for 2 coppers -- PAID.
Beatrice Poudevigne bought a walking stick for 3 coppers -- PAID.
Marcus the son of Martin bought a walking stick for 4 coppers -- PAID.
Dagobert the Bold bought a walking stick for 4 coppers -- PAID.
Emeline Aubernard bought a walking stick for 2 coppers -- PAID.
Odeline Larsonneur bought a walking stick for 4 coppers -- PAID.
Bilal Cabrera bought a walking stick for 2 coppers -- PAID.
Tiphaine Coulomb bought a walking stick for 5 coppers -- PAID.
Thierry from next town bought a walking stick for 3 coppers -- PAID.
Bernard Coulon bought a walking stick for 4 coppers -- PAID.
Crepin the Bold bought a walking stick for 4 coppers -- PAID.
Fernand du Chêne bought a walking stick for 3 coppers -- PAID.
Eloise Courtois bought a walking stick for 3 coppers -- PAID.
Zacharia Langlois bought a walking stick for 4 coppers -- PAID.
Beatrice Boulanger bought a walking stick for 5 coppers -- PAID.
Romaric Langlois bought a walking stick for 4 coppers -- PAID.
Domitille Poudevigne bought a walking stick for 4 coppers -- PAID.
Roland Coulon bought a walking stick for 2 coppers -- PAID.
```

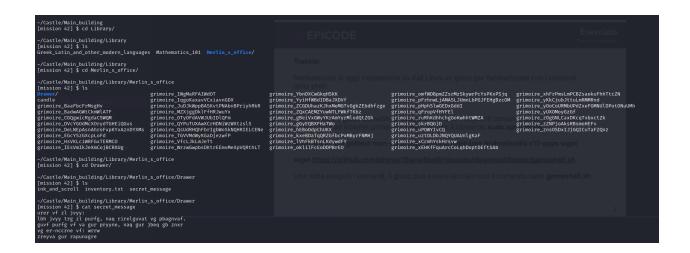
```
//Stall
[mission 40] $ grep 'King' ./0ff675149f24_s_c_r_o_l_l_0ff675149f249564 | grep -v PAID
the King bought a chackal for 3 coppers.
the King bought a shiny rock for 4 coppers.
the King bought an apple for 6 coppers.
the King bought a stool for 4 coppers.
the King bought a spade for 3 coppers.
the King bought a bottle of cider for 3 coppers.
(3)
    //Stall
[mission 40] $ gsh check
How much does the king owe? 23
Congratulations, mission 40 has been successfully completed!
```

Combine several commands with ``|`` in order to find the number of unpaid items.

```
(0)
~/Stall
[mission 41] $ find . -type f -exec grep -l "PAID" {} + | wc -l
(1)
~/Stall
[mission 41] $ gsh check
How many unpaid items are there? 1
That's not the right answer!
 | Use the command
 | $ gsh help
 | to get the list of "gsh" commands. |
(0)
~/Stall
[mission 41] $ find . -type f -exec grep -v "PAID" {} + | wc -l
(1)
~/Stall
[mission 41] $ gsh check
How many unpaid items are there? 55
Congratulations, mission 41 has been successfully completed!
  | Use the command
  | $ gsh help
 | to get the list of "gsh" commands. |
```

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.



```
~/Castle/Main_building/Library/Merlin_s_office/Drawer
[mission 42] $ tr "a-z" "j-z" < secret_message
zznz zo zu szzz:
uką szzz zzp zu yzzop, wjz zrznupzzjz zp ykjpwzjo.
pzzo yzzop zo zj pzz yzzzwn, wjz pzz sknz pk zwzz
zp nz-wllzwn zo: zzzz
zznzzj pzz zjyzwjpzn
~/Castle/Main building/Library/Merlin s office/Drawer
[mission 42] $ tr "a-z" "j-az-l" < secret_message
tr: range-endpoints of 'j-a' are in reverse collating sequence or
~/Castle/Main_building/Library/Merlin_s_office/Drawer
[mission 42] $ tr "a-z" "k-az-l" < secret_message
tr: range-endpoints of 'k-a' are in reverse collating sequence or
~/Castle/Main_building/Library/Merlin_s_office/Drawer
[mission 42] $ tr "a-z" "k-za-l" < secret_message
ebob fp jv tfii:
vlr tfii dbq jv zebpq, xka bsbovqefkd fq zlkqxfkp.
qefp zebpq fp fk qeb zbiixo, xka qeb tloa ql jxhb
fq ob-xmmbxo fp: gbbg
jboifk geb bkzexkgbo
~/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: hcch
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: iddi
ldakhm sgd dmbgzmsda
~/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: jeej
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?
jeej
```

Congratulations, mission 42 has been successfully completed!

