02. The Squirrel



An intern from a big company must solve the game - "The squirrel". He doesn't have enough experience, so he needs vour help.

Here are the rules of the game:

The game starts with 0 collected hazelnuts. Your goal is to collect all of them.

You get as input the size of the field, which will be always a square shape. After that, you will receive the directions in which the squirrel can move - "left", "right", "down", and "up" in a sequence, each value separated by a comma and a space (", "). On the next rows, you will receive the field.

Possible characters in the field:

- **s** represents the squirrel's position.
- **h** represents a hazelnut.
- * the asterisk represents an empty position.
- t represents a trap.

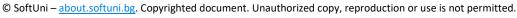
The squirrel starts from the **s** - **position**.

- If the squirrel steps on a hazelnut, you have to increase them by 1. You have to track the number of hazelnuts because you may need them. The field should be marked with an asterisk (*).
 - If the squirrel collects all 3 hazelnuts, the game ends and the squirrel stays in its last position.
- Asterisk ("*") does nothing, so nothing happens if the squirrel steps on it.
- If it steps on a trap, the game ends and the squirrel disappears from the screen.
- If the squirrel moves out of the field, the game ends and disappears from the screen.

After all commands you will have 4 possible results:

- You win if the squirrel collects all of the hazelnuts.
- The squirrel has collected less than 3 hazelnuts.
- The squirrel steps on a trap.
- The squirrel moves out of the field.



















Input

- On the first line, you will receive the length of the field an integer number in the range [3, 5].
- On the second line, you will receive the commands to move the squirrel an array of strings separated by
- In the next N lines, you will receive the values for every row.

Output

- On the first line:
 - o If the squirrel goes out of the field "The squirrel is out of the field.".
 - o If the squirrel steps on a trap "Unfortunately, the squirrel stepped on a trap...".
 - o If the squirrel hasn't collected all hazelnuts "There are more hazelnuts to collect.".
 - o If the squirrel has collected all hazelnuts "Good job! You have collected all hazelnuts!".
- On the second line, print the number of collected hazelnuts "Hazelnuts collected: {hazelnuts_count}"

Constraints

- The size of the field will be between [3,5].
- There could be **one** or **no trap** on the field.
- There will always be 3 hazelnuts on the field.

Examples

| Input | Output | Comments |
|--|--|---|
| 5 left, left, up, right, up, up **h** t*** *h** *h*** *h*s* **** | Good job! You have collected all hazelnuts! Hazelnuts collected: 3 | The squirrel moves 2 times to the left and collects its first hazelnut. After that collect the second one. Finally, with the last "up" command, the squirrel collects its final hazelnut. |
| 4 down, down, right, right *s*h ***h ****t h*** | Unfortunately, the squirrel stepped on a trap Hazelnuts collected: 0 | |
| 4 down, down, right, right h*** ***h *s*t | The squirrel is out of the field. Hazelnuts collected: 0 | |

















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