

# Plotter

Write a Python program to draw figures in a square of  $20 \times 20$  cells.

Each cell can contain a single character. At the beginning of the program, all cells contain the character '.'. Cells are numbered from (0,0) (lower left corner) to (19, 19) (upper right corner).

The program must read and execute the drawing operations contained in the file "*plotter.txt*".

Each line of the file reports a single instruction. The possible instructions are:

- P x y draw a point in cell (x, y). the point is represented by character '\*'.
- H x y l draw a horizontal starting from cell at (x, y) of length l (including the starting cell). The line must extend towards the right of the starting cell. The line must be drawn using the character '-'
- V x y l draw a vertical starting from cell at (x, y) of length l (including the starting cell). The line must extend from the starting cell upwards. The line must be drawn using the character '|'
- Whenever a horizontal line crosses a vertical one, or vice-versa, the corresponding cell must be updated with the character '+'. In all other cases, the last drawing instruction overwrites the preceding ones.

At the end, the program must print the resulting square.

## Example

Assuming a square of  $5 \times 5$  cells, and a file *plotter.txt* with contents

```
P 2 2
H 1 1 3
H 1 3 3
V 3 0 5
P 1 1
```

the program should print

```
...|.
.--+.
..*|.
.*-+.
...|.
```