



18

Framing

7 points

Introduction

A new app for messaging Internet Frames is being developed. In this app every single message is printed having a word per line inside a frame like in this example.

```
#####  
# Hello #  
# World! #  
#####
```

To make things easier you think about coding a program to build several Internet Frames one after the other. The height of the frame is defined by the number of words inside the Internet Frame. And the width of a frame depends on the longest word in the message. When concatenating Internet Frames of different width, print a single horizontal line between the frames with the wider size of previous and next frame.

Input

A line or more with one or more words per line.
A single character '#' marks the end of the input lines.

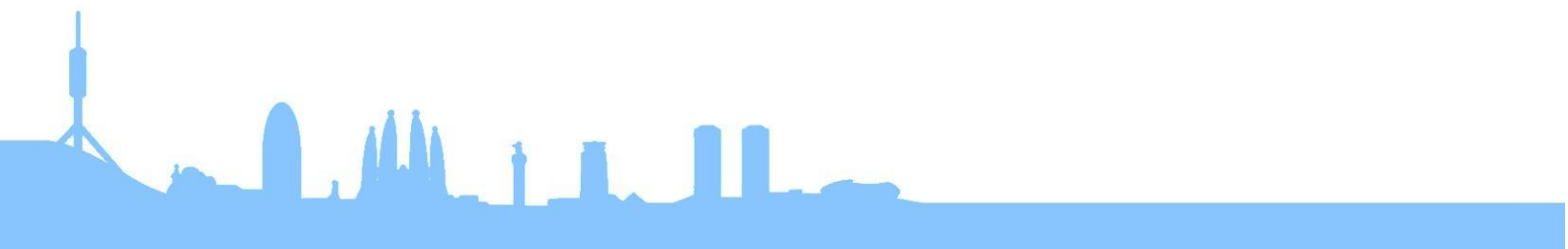
Output

One or more rectangular frames containing the words of each line printed one per line in a rectangular frame.

Example 1

Input

```
Hi! This is frame number one  
This is the 2nd  
Finally, the fantastic third frame  
#
```





Output

```
#####  
# Hi!   #  
# This  #  
# is    #  
# frame #  
# number #  
# one   #  
#####  
# This  #  
# is    #  
# the   #  
# 2nd   #  
#####  
# Finally, #  
# the      #  
# fantastic #  
# third    #  
# frame    #  
#####
```

