

Lecture 24: ASCII ART Overview

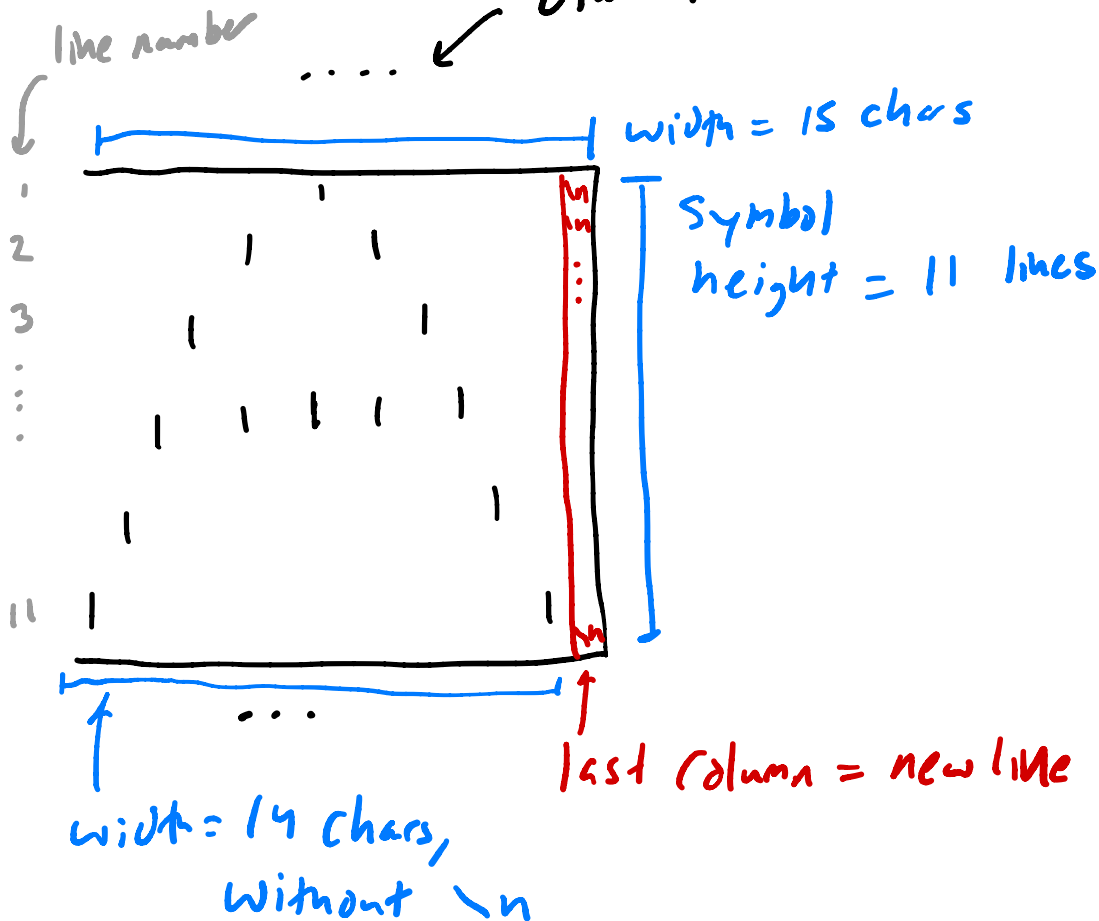
font Alphabet.txt

A B C D ... a b c d ... ? !
64 in total

} alphabet: all
Symbols we can
convert to ASCII
art.

font Symbols.txt

Other Symbols



Suggested way to organize each ASCII art

Symbol: Dictionary

keys: single characters in ASCII font
e.g. 'A', 'B', 'C', ...

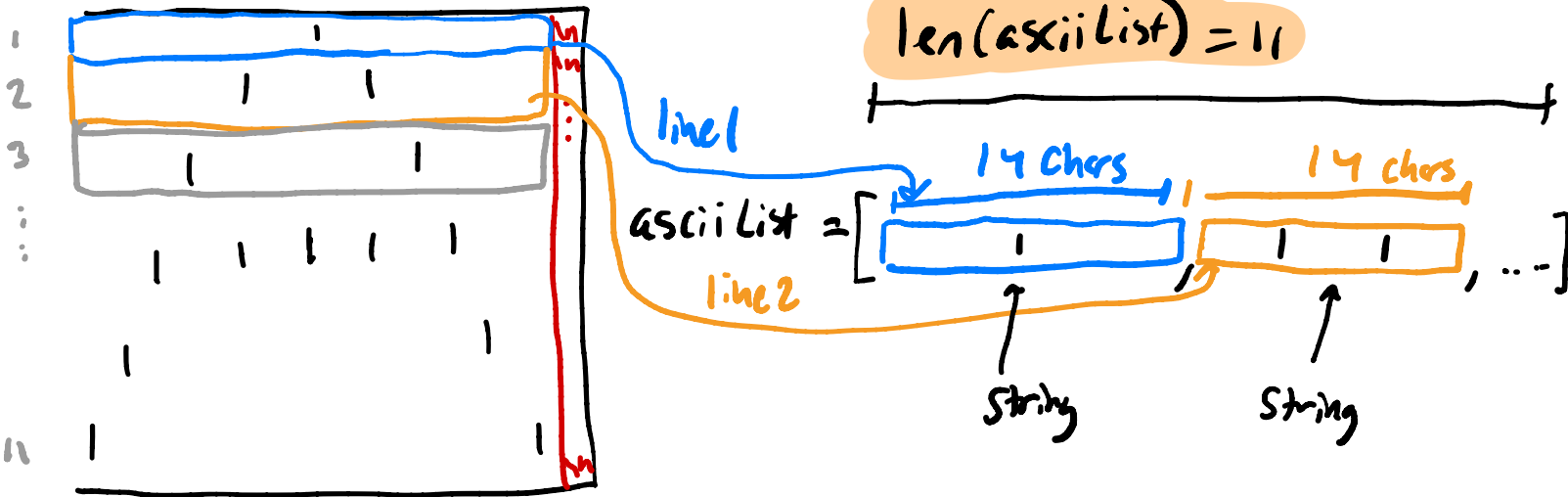
Values: List of 11 strings making up each
of the 11 lines of each symbol.

Step 1 • read in each line of ASCII symbol as a String without new line characters.

- Append 11 consecutive line strings into a list:

Each list has
11 items → all
/ Strings

$\text{len}(\text{asciiList}) = 11$



- Add the list composing the 11 line strings for each ASCII symbol to a dictionary:

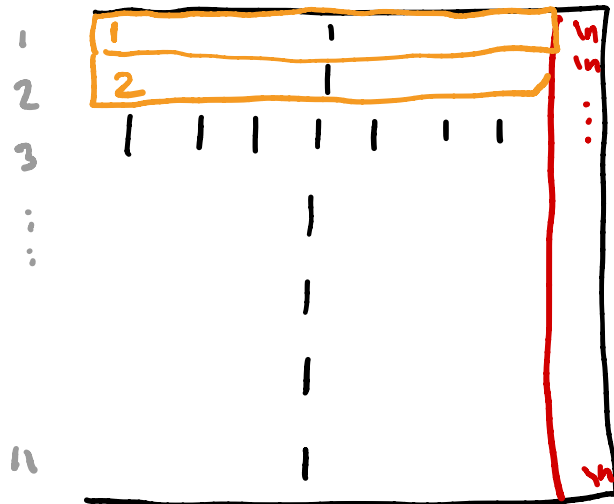
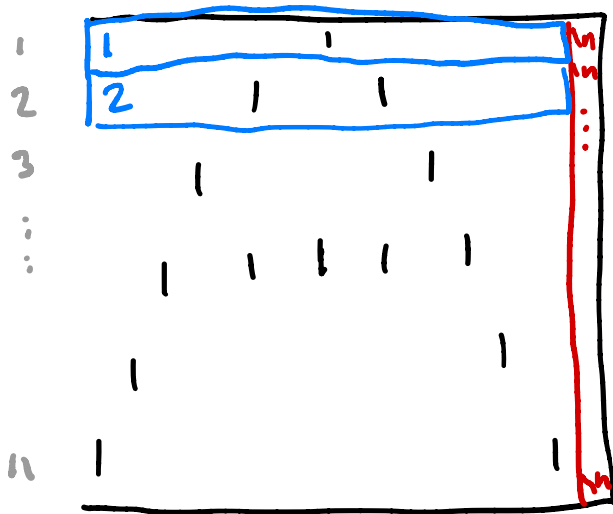
$d['A'] = [\text{14 Chars String}, \text{14 Chars String}, \text{14 Chars String}, \dots]$
 $d['B'] = [\text{14 Chars String}, \text{14 Chars String}, \text{14 Chars String}, \dots]$
 $d['C'] = [\text{14 Chars String}, \text{14 Chars String}, \text{14 Chars String}, \dots]$
 $\vdots$
 $d['!'] = [\text{14 Chars String}, \text{14 Chars String}, \text{14 Chars String}, \dots]$

Keys = # font Symbols in alphabet

$\text{len}(d.\text{keys}()) : 64 \text{ A-Z, a-z, 0-9, ?, !}$

Step 2 Concatenate rows of ASCII symbol strings representing characters of the input string one row at a time.

Example: Convert input string 'A+' to ASCII art.



String

Art = [1] + [1] + '\n' + [2] + [2] + '\n' + ...

How to build these rows of the ASCII art?

$d['A'] = [11 \text{ lines (strings) making up } A \text{ Symbol}]$,

$d['t'] = [11 \text{ lines (strings) making up } t \text{ Symbol}]$,

$$\begin{aligned} \text{art} &= d['A'][0] + d['t'][0] + '\n' \\ &+ d['A'][1] + d['t'][1] + '\n' \\ &+ \dots \\ &+ d['A'][10] + d['t'][10] + '\n' \end{aligned}$$