lecture 24: ASCII ART Overview

font Alphabet.txt

font Symbols.txt

alphabet: all symbols we can convert to ASCII art.

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.
- 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
  len(asciiList) = 11
  ```

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

  ```
  d['A'] = [14, 14, 14, 1, 1, ..., 1, 1, 1, ...]
  d['B'] = [14, 14, 14, 1, 1, ..., 1, 1, 1, ...]
  d['C'] = [14, 14, 14, 1, 1, ..., 1, 1, 1, ...]
  ...
  d['!]'] = [14, 14, 14, 1, 1, ..., 1, 1, 1, ...]
  ```

  # Keys = # font Symbols in alphabet

  len(d.keys()): 64 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.

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<p>| | | |</p>
<table>
<thead>
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</tbody>
</table>
```

- String:
  ```
  art = 11\n  + 12\n  + 'n' + 2
  + 2\n  + 'n' + ...
  ```
How to build these rows of the ASCII art?

\[ \partial [\text{'A'}] = \left[ 11 \text{ lines (strings)} \right. \text{ McKny up A symbol}, \]
\[ \partial [\text{'t'}] = \left[ 11 \text{ lines (strings)} \right. \text{ McKny up + symbol}, \]

\[ \text{art} = \partial [\text{'A'}][0] + \partial [\text{'t'}][0] + \text{'\n'} \]
\[ + \partial [\text{'A'}][1] + \partial [\text{'t'}][1] + \text{'\n'} \]
\[ + \ldots \]
\[ + \partial [\text{'A'}][10] + \partial [\text{'t'}][10] + \text{'\n'} \]