Coding in Angular

Write a Angular single-page-application that reads text from a file, splits it into words at spaces and newline characters and constructs an (unbalanced) binary tree where each leaf node represents a unique word.

The tree construction shall start by creating a node for each unique word, where a node has a field to keep track of the occurrence count.

The algorithm starts with the two least occurring nodes and creates a parent node. The parent node gets assigned an occurrence count that is the sum of the word occurrences. The process then repeats, i.e., it locates the two nodes with the least occurrence count, creates a parent node, and so on, until all nodes are part of the tree.

The app should then render the following elements on the UI:

- An editable text area
- The tree structure (very basic output is sufficient)

Any change to the text in the text area must automatically update the tree.

For example, the text "She had had to address problems" results in this tree (note that there are multiple variants):

```
6
|
+- 2 (had)
|
+- 4
| |
| +- 2
| | |
| | +- 1 (to)
| | |
| | +- 1 (problems)
| |
| +- 2
| | |
| | +- 1 (address)
| | |
| | +- 1 (She)
```

Remarks:

You may not use any 3rd party code or libraries. Use of the standard angular libraries is allowed and encouraged.