For this lab, you will modify the work done in the previous lab to get a little experience on MATLAB structures. Some parts in your function are the same as the previous lab, including:

- Read the text file (use the same text file as the last lab).
- Extract the individual words.
- Identify the unique words and their counts.

Below explains what are different from the previous lab:

The function header becomes

```
A = mylab8(fn, sort mode)
```

Here fn is the path to the file. The output A is an array of structures with three fields: word is the word itself (an array of characters), len is the length of the word, and count is its times of occurrence. Example:

```
A(1).word is 'she', A(1).len is 3, and A(1).count is 4. A(2).word is 'sells', A(2).len is 5, and A(2).count is 4.
```

The second input sort_mode is a string that indicates how the words should be sorted. It can be 'none', meaning no sorting; 'word', meaning sorting in dictionary order; 'len', meaning sorting by length; 'count', meaning sorting by count.

You can use [A.field] to put all the values of the same field in the structure array into a vector, and sort this vector. This applies to [A.len] and [A.count]. For sorting the words, use {A.word} to put all the words into a cell array of strings, and they apply sort to this cell array.

The following is an example illustrating how to use sorted indices to reorder the array elements:

```
[~, k] = sort([A.len]);
A = A(k);
```

Finally, if you call the function without an output argument, let the function print out the words and their counts (in the sorted order if applicable).