

Assignment 3

L445 / L545

Due Wednesday, February 22 (changed from original)

Note that you may work in **pairs** for this assignment and turn in only one set of files for that pair.

1. Using `foma`, implement your Japanese FST from the last assignment.
2. Using `foma`, implement the Soundex algorithm you wrote in the last assignment.
3. Using `foma`, complete one of the exercises **of your choice** under *Additional exercises* at <http://www.stanford.edu/~laurik/fsmbook/home.html>
 - Note that some exercises build from exercises which feature solutions in `xfst`
 - Note that the `xfst` syntax should more or less be the same as with `foma`
4. **[Bonus]** Take a look at this page describing syllabification in Finnish, in a `foma`-like framework:
<http://www.stanford.edu/~laurik/fsmbook/exercises/FinnishSyllabification.html>
 - (a) Following our discussion of composition from Roark & Sproat, rephrase the Syllabify rule, such that represents a transducer which composes on top of Finnish words.
 - (b) Describe the alterations to your transducer (or series of transducers) which must be made to account for the more complicated version of Finnish vowels given on this page. (Note: you are not being asked to implement this.)