

## Report – G44

NAME	NUMBER	CONTRIBUTION	DETAILS
David Antunes	95551	50%	Steps 1-5 metaphoneLN and invertedmetaphoneLN
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### Options

We convert and compile the step and -in tests at the beginning. Then we create our metaphoneLN and invertMetaphoneLN transducers. After this, we test our transducers saving the output both in fst (compiled folder) and txt (tests folder) formats. Finally, the pdfs are created for every fst file existing in the compiled folder and the images are saved in the images folder.

### Viability

Even though the transducer is giving the correct output it takes a lot of time to do it, and the images created have a lot of paths for little nodes, which makes them unreadable.

### Usability of the “inverted” metaphoneLN transducer

Having the phonetic representation of a word we try to identify which words sound like that representation. For example, we can use it to recognize which word a person spoke. By using the invertMetaphoneLN transducer we get the words that sound like what was heard and then using another mechanism we can try to see which of these words makes sense with the rest of the phrase that was listened to. It's important to notice that we can't get the exact word because, especially during step 9 where the word gets stripped of every non-initial vowel, the phonetic representation represents more than one word (it doesn't have a unique value).