Mini-Project Nº 1 (MP1) Report

Group 04
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How to Utilize

To begin, navigate to the project folder and open the terminal. Next, run the command `chmod +x run.sh` followed by `sh run.sh` or `./run.sh`. The latter command initiates the project and creates the folders `compiled` and `images` and their corresponding files. In the console you will see the output of various tests that were conducted to validate the accuracy of the project.

Auxiliary Transducers in the Sources Folder

Three slash auxiliary transducers (*aux_slash.txt*, *aux_slash2.txt*, *aux_slash3.txt*) were created to streamline the creation of *mix2numerical.fst*, *pt2en.fst*, *en2pt.fst*, and *datenum2text.fst*;

Two auxiliary transducers for days (*aux_day.txt*) and years (*aux_year.txt*) were created to easily achieve the stated "The day and the year must remain unchanged" rule;

The auxiliary transducer *month_pt2en.txt* was created to streamline the creation of *pt2en.fst* by providing the translation for months from Portuguese to English.

Development Decisions

The group used the base of the provided `run.sh` and adapted it to meet the needs of our project resolution.

For the development of transducers 2, 3, 4, and 8 we utilized the operation *fstconcat* a lot on our transducers to achieve the wanted results.

For the development of transducer 9, the operations *fstcompose* e *fstunion* were effectively employed to transform mixed condensed format both in Portuguese and English into English text.

For the transducer 10 we employed the operation *fstunion* on transducer 8 and 9. This enabled us to accept both Portuguese and English mixed condensed format, as well as numerical format and subsequently generate it as formatted English text.

Testing Development Decisions

The group opted to develop the tests for group E employing the third method provided in the original *run.sh* file. After running the *run.sh* script, the outcomes of these tests will be visible in the command line.

However, in the development of the tests required in evaluation criterion number 4, we adopted the first method provided in the original run.sh file. We created the transducers *t-ist199314_mix.fst*, *t-ist199314_numerical.fst*, *t-ist199230_mix.fst*, *t-ist199230_numerical.fst*, *t-ist199230_numerical2.fst*, *t-portuguese.fst*, *t-english.fst* to generate a diverse range of inputs for *date2text.fst*. The latter two transducers were specifically created to test inputs in which the translation of the months results in a distinct set of characters. This adjustment was made due to the fact that the first three letters of the birth month of the group members are the same in Portuguese and English.

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