

The Crosswords - 3 Letter

\mathcal{K}	\mathcal{R}	\mathcal{O}
\mathcal{L}	\mathcal{A}	\mathcal{S}
\emptyset	\mathcal{V}	\mathcal{E}

Words

DATA:

The associated files 3LetterWords. are identical in content. They do only vary in their format.*

The files contain a lot of “words” of 3 letters. It is upper- as well as lower-case letters and special characters.

EXERCISE:

Do a full UP process on the project incl. diagrams.

o:

Create database tables for the words and import the words into the database table

I:

Design and implement a Java program, which can:

- a) read in these words from the database into Java ADT (set, map, list)*
- b) filter them to a standard (e.g. no special chars, all lowercase, ...)*
- c) write to new file so they are unique and easy to search in. You are welcome to include further information.*

II:

Design and implement a Java program, which use the result file from I: to find 3 letters cross word puzzles, where each letter is unique.

The implementation can make the most use of Java different data structures e.g. from the Collection classes.

III:

Repeat II: but this time, with class(es) made by you through inheritance.

That is - rethink your solution from II and extract which services YOU want from this/these new class(es).

IV:

How many different crosswords is your program capable of creating?

How much time does it take?

DATABASE Optimization:

Consider optimization of the algorithm:

How could the word list be split into several tables to minimize the number of combinations to try?