

## I. (0 points) Preparation:

Modify your Lab 02 solution so that in addition to adding new words to the dictionary, you can also search, sort, delete and modify them.

When displaying the list of words, it should be possible to sort the entire list according to the selected language, both descending and ascending lexicographically.

Instead of a CVS file, use the H2 database saved to a file (in the workspace directory).

Make sure that if the database is not yet saved, it is created and filled with initial records, and if the database file already exists, no attempt is made to create it again and fill it with data.

- II. (2 points) Create your own repository implementation based on a repository using JPA and Hibernate based on EntityManager (not Spring Data JPA!).
  - Send the solution as a ZIP archive called sXXXXX-TPO03-EntityManager.zip, where sXXXXX is your index number.
- III. (3 points) Create your own repository implementation based on a repository using JPA and Hibernate based on Spring Data JPA. Perform this task using automation query creation whenever possible, leveraging the built-in capabilities of Spring Data.

Send the solution as a ZIP archive called sXXXXX-TPO03-SpringData.zip, where sXXXXX is your index number.