Tutorial 4 Software design

1 Description

In this tutorial, you will review and apply the object-oriented software design theory and practice in the lecture.

2 Tasks

2.1 KEngine

1. Write a brief, structured functional description for each of the five `Engine`'s operations using the decomposition results and other data abstractions that have been created at this stage.
   Your descriptions must conform to the requirement specification and must refer to as many operations of the other data abstractions as possible. If necessary, refer to requirement text of the engine for more details on the operations.
2. Review the functional descriptions of the five `Engine`'s operations that you wrote, using the decomposition results and other data abstractions that have been created at this stage.
   Your descriptions must conform to the logics prescribed by the sequence diagrams and must refer to as many operations of the other data abstractions as possible.
3. Explain the following attributes:
   a) `TitleTable.docs`
   b) `WordTable.table`
   c) `Query.matches`
4. Explain the class `DocCnt`

2.2 Program Trio

1. Complete the initial designs for the exercises mentioned in the MD.
   Your designs will create 3 programs: `xref`, `spellchecker`, `pathfinder`.
2. Complete the detailed designs of the 3 programs: `xref`, `spellchecker`, `pathfinder`.

3 Submission

Submit your report to the home work submission box of this tutorial on the FIT portal. Name the file as follows: ***student-id_class*_hwk4.zip**, where ***student-id*** is your student id, ***class*** is the code of the class that you attend.