D03 – Persistence models Requirements

Requirements for levels C, B, and A

Item 1.   A UML domain model regarding the "Acme Explorer" project. Please, document your changes with regard to the version that you released in your previous deliverable and justify them.

Item 2.   An Eclipse/Maven project that implements a Java domain model and a persistence model regarding project "Acme Explorer". Please, document your changes regarding the version that you released in your previous deliverable and justify them.

Item 3.   A set of JPQL statements that implement the queries requested in the administrator's dashboard. Document your JPQL statements as follows:

   a.   Put a header of the form "Query C/1", "Query C/2", "Query B/1", "Query B/2", and the like. It must be clear the level and the query number.
   b.   Write the specification of the query, the one that is provided in natural language in the project statement.
   c.   Write your JPQL query; make sure that it can be copied from your document and pasted into the "QueryDatabase" utility.
   d.   Write a short description in natural language that describes how your query works.
   e.   Write the results of your query when it's run on your sample database.

Requirements for level A+

Item 4.   Queries that include operator "LIKE" allow to search for objects that contain a key word in a string attribute. Unfortunately, that operator is very inefficient. We are using a component called Hibernate to implement our persistence models. Hibernate provides a technology called Full-Text Search that allows to search for arbitrary combinations of key words very efficiently.

   a.   Write a simple console application that allows to search your database for recipes that contain an arbitrary combination of key words in their ticker, title, or summary. The application is expected to read the key words from the keyboard and to output the results to the console. Explore classes "SchemaPrinter" and "ConsoleReader", which are distributed with your project template. They help pretty print arbitrary objects out and read text from the console.
   b.   Write a report in which you explain how you have implemented your application. The report must provide enough details for another person to repeat your steps.