



Course Project – Part 1

Additives 4Us - Universe of Discourse

The Additives 4Us (A4U) is a company that sells chemical additives for food processing for food companies. The CEO of the company decided to organize all the A4U information in a single database management system. This data repository should include data relative to the compounds sold, customers (companies) and products used.

https://en.wikipedia.org/wiki/Food_additive

For each additive it is known its composition, the common name, the code name (e.g. K303) and all other designations. An additive may be composed by a mixture of substances for which we know its name and molecular formula and amount present in the mixture (as a %). An additive may be composed by at most four different substances. The common name of an additive is unique, but an additive may have several designations. Each additive will have one set of properties measured according to its potency. [e.g. compound K303 is a sweetener with a potency of 0.48, and also an antioxidant with a potency of 0.1] A property may be shared by several additives. Each additive may also have human health effects and a likelihood of appearance ratio [E.g. K303 has shown a 0.1% likelihood of causing headaches]. The list of health effects was compiled from external sources and there may exist several health effects without any corresponding additive.

Write a report that should contain:

- The E/R model of the Universe of Discourse presented above and the integrity constraints identified
- The relational model
- The SQL/DDDL instructions for creating the tables. Please note that SQL and other code **should always be presented** in a Fixed Size Type font like Courier New.

Students should compose a **one file PDF** with the report. The first page should include the group number, names and numbers of students **and the amount of time (in hours) each student contributed to this phase**

Due date: October 15 at 23:55, 2017 (use the Course Moodle for submission) For the E/R model students may enclose a **readable** photograph of the model.