

# Exercise 2

For all problems provide:

- appropriate logical and physical vocabularies and constraints;
- pseudo-code for access path(s) implementation; and
- sample queries and expected query plans that demonstrate the use of the extension.

Problems:

- 1 Show how *built-in integer arithmetic* can be introduced.
- 2 Show how *horizontal partitioning by fixed range(s)* can be accommodated in a physical design;
- 3 Show how a *NULL value (NULL-inapplicable, aka C style null)* can be accommodated (use ideas/results from the previous problem);
- 4 Show how the two-level storage model can be extended to allow two-level record ids and how these can, in turn, be used indexing disk-based data.