## MS SQL Server – part 2

## **Exercise**

1. Create database named LIBRARY (as shown at schema on the next page). Give names to all the constraints (except NULL constraints). The properties of the tables are defined as follows:

- □ MEMEBERS table
  - CardNo 5 characters, primary key,
  - Surname up to 15 characters,
  - Name as above,
  - Address –up to 150 characters,
  - Name, Surname, Birthday\_date not null,
  - Gender 1 char: M or F letter,
  - Phone\_No up to 15 characters.
- □ Employees table
  - emp\_id primery key with identity set (seed = 1, incerement=1),
  - Surname, Name and Birthday\_date are not null,
  - birthday date must be earlier than date of employment (Emp\_Date),
- Publishers table
  - pub\_id is a primary key with identity set (seed=1, incerement=1),
  - Name, City, not null, up to 50 characters,
  - Phone\_No up to 15 charakters,
- Books table
  - BookID primary key, 5 characters,
  - Pub\_ID foreign key related to Publishers,
  - Type charaters, must contain one of the following values: novel, historical, for kids, poems, crime story, science fiction, science
  - Price is a currency field (money), not null,
  - Title up to 40 characters, not null,
- □ BOOK\_LOANS table
  - LoanID integer with identity set (seed = 1, increment = 1), primary key,
  - CardNo, BookID and emp\_id are foreign keys related to Members, Books and Employees,
  - DateOut must be earlier than DueDate,
  - Penalty can't contain negative values, default is set to o (zero),



- 1. Create database diagram and check it corectness (compare with a diagram above).
- 2. Add data from the script (library\_eng\_data.sql). In case of errors, check the defined structure again.
- 3. There is Gender field in Employees table omitted (it should contain 'F' or "M' value). Correct this mistake.
- 4. Change Book\_loans tabel add another constraint, that enforces uniqueness of a pair of values : BookID and DateOut.