

# Practice Class 4

## Objectives

Creation of Relational databases in DBMS "Microsoft SQL Server"  
SQL DDL - data definition, data type, and health constraints

Note: You must follow the response template provided and only legible diagram submissions in PDF or image format (PNG, BMP, JPG and SVG) are accepted. As defined in the template, you must submit a .sql file for each problem: Rent-a-car ex\_4\_1\_1.sql; Flight ex\_4\_1\_2.sql, ..., ATL ex\_4\_1\_6.sql.

## Assignment 4.1

For each relational scheme developed in assignment 3, namely:

1. Rent-a-Car Management System;
  2. Flight Reservation Management System;
  3. Stock Management System - Order Module;
  4. Electronic Medicines Prescription System;
  5. Conference Management System;
  6. ATL Management System.
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- a) Define, using the SQL - DDL language, *the relationships* (tables), the data types, and the various integrity constraints (domain, entity, and references). Also, note the mandatory participation of entities in the relationship (partial/total).
  - b) Use Microsoft SQL Server Management Studio (figure below) to connect to the SQL Server server (see assignment 1). Create a *query window* ("New Query") to interact with the DBMS. For each database, save the contents of this window (i.e. SQL DDL instructions) in a working file with the extension ".sql". To test a block of instructions must select the desired instructions and press the option "! Execute." If there are errors, these will appear in the "Messages" window. In the "Object Explorer" window you can go visual tracking of the developed actions (i.e. the instructions executed). At the end create a "Database Diagram" for each database.
  - c) You must submit, in Moodle, a ZIP file containing the .sql files created and a pdf (or image) with the database diagram.

