

## **Deadline: week 9 → monday 16:40**

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### **Description:**

Sometimes, after you design a database, you need to change its structure. Unfortunately, changes aren't correct every time, so they must be reverted. Your task is to create a versioning mechanism that allows you to easily switch between database versions.

### **Task:**

Write SQL scripts that:

- a. modify the type of a column
- b. add / remove a column
- c. add / remove a DEFAULT constraint
- d. add / remove a primary key
- e. add / remove a candidate key
- f. add / remove a foreign key
- g. create / drop a table

For each of the scripts above, write another one that reverts the operation. Place each script in a stored procedure. Use a simple, intuitive naming convention.

Create a new table that holds the current version of the database schema. Simplifying assumption: the version is an integer number.

Write a stored procedure that receives as a parameter a version number and brings the database to that version.

### **Useful references:**

#### ▼ T-SQL

- DECLARE, SET, BEGIN...END <http://msdn.microsoft.com/en-us/library/ms188927.aspx><http://msdn.microsoft.com/en-us/library/ms189484.aspx><http://msdn.microsoft.com/en-us/library/ms190487.aspx>
- WHILE <http://msdn.microsoft.com/en-us/library/ms178642.aspx>
- sp\_executesql <http://msdn.microsoft.com/en-us/library/ms188001.aspx>

#### ▼ Stored Procedures

<http://msdn.microsoft.com/en-us/library/ms190782.aspx>

#### ▼ SQL Server technical documentation

<https://docs.microsoft.com/en-us/sql/sql-server/sql-server-technical-documentation>