Problem 3. Database change - 2 weeks

Sometimes, after you design a database, you need to update its structure; unfortunately not every time the updates are correct so the changes must be reverted. Your task is to create such a versioning mechanism that will allow you to freely move from one version of the database to another.

Write SQL scripts that will (you can generate them but still need to be able to explain their structure):

- modify the type of a column
- add a default constraint
- create/remove a new table
- add a column
- create/remove a foreign key constraint

For each of the scripts above write/generate another that reverts the operation. Create a new table that holds the current version of the database schema. Assume for now the version is a single number.

Put each of the scripts in a stored procedure. Make sure that the naming convention is simple and clear.

Write another stored procedure that receives as a parameter a version and gets the database to that version.

What you need to know to solve this laboratory:

- DDL: see seminar 2 for reference

- TSql: basic sql statements (declare, begin, end, set etc.)

o http://msdn.microsoft.com/en-us/library/ms190487.aspx

o http://msdn.microsoft.com/en-us/library/ms188927.aspx

o http://msdn.microsoft.com/en-us/library/ms189484.aspx

- TSql: WHILE statement
(http://msdn.microsoft.com/en-us/library/ms178642.aspx)

- TSql: dynamic queries
(http://msdn.microsoft.com/en-us/library/ms188001.aspx)

- Stored procedures:
http://msdn.microsoft.com/en-us/library/ms190782.aspx

Other references:

BOL:
http://msdn.microsoft.com/en-us/library/ms130214(v=sql.100).aspx

BOL Database Engine:
http://msdn.microsoft.com/en-us/library/ms187875(v=sql.100).aspx