

Transactions:

1. Using the tables created in Assignment 1, create the necessary scripts for transactions that demonstrate:
 - **Non-repeatable Read**
 - **Phantom Read**
2. Modify the package created in Assignment 2 so that error logging is done using an **autonomous transaction**.
3. Using a table created in Assignment 1, create the necessary scripts to add a column that stores the current row in **XML format**.

Hierarchical Structures:

Using the files from the **StrArborescente** folder, complete the following tasks:

1. Write a query that displays all products in the "**Software**" category (including all its subcategories) **without using the category code/ID directly** (use the category name instead).
2. Write a query that displays all **root nodes** of the structure, and for each such node, the **number of direct descendants**. Add a column to the produse (products) table to store the direct descendants' information in **XML format** (code, name, position).
3. Display the **first 7 products** from each level that are found at **levels 3 and 4** of the hierarchy, and that have at least **2 vowels** in their name, sorted alphabetically within each level (the level should also be displayed).
4. Create the necessary scripts (**INSERTs, UPDATEs**) to modify the structure in such a way that the hierarchical structure contains at least **one cycle** (the cycle should then be highlighted in the result of a query, either with "YES" or another string, for the node that introduces the cycle).

Deadline: 2 weeks (May 16th)