**Databases Laboratory Work Nr 7**

**Title:** Diagrams, Schemes and Synonyms

**Prerequisites:** SQL Server 2019 and SSMS

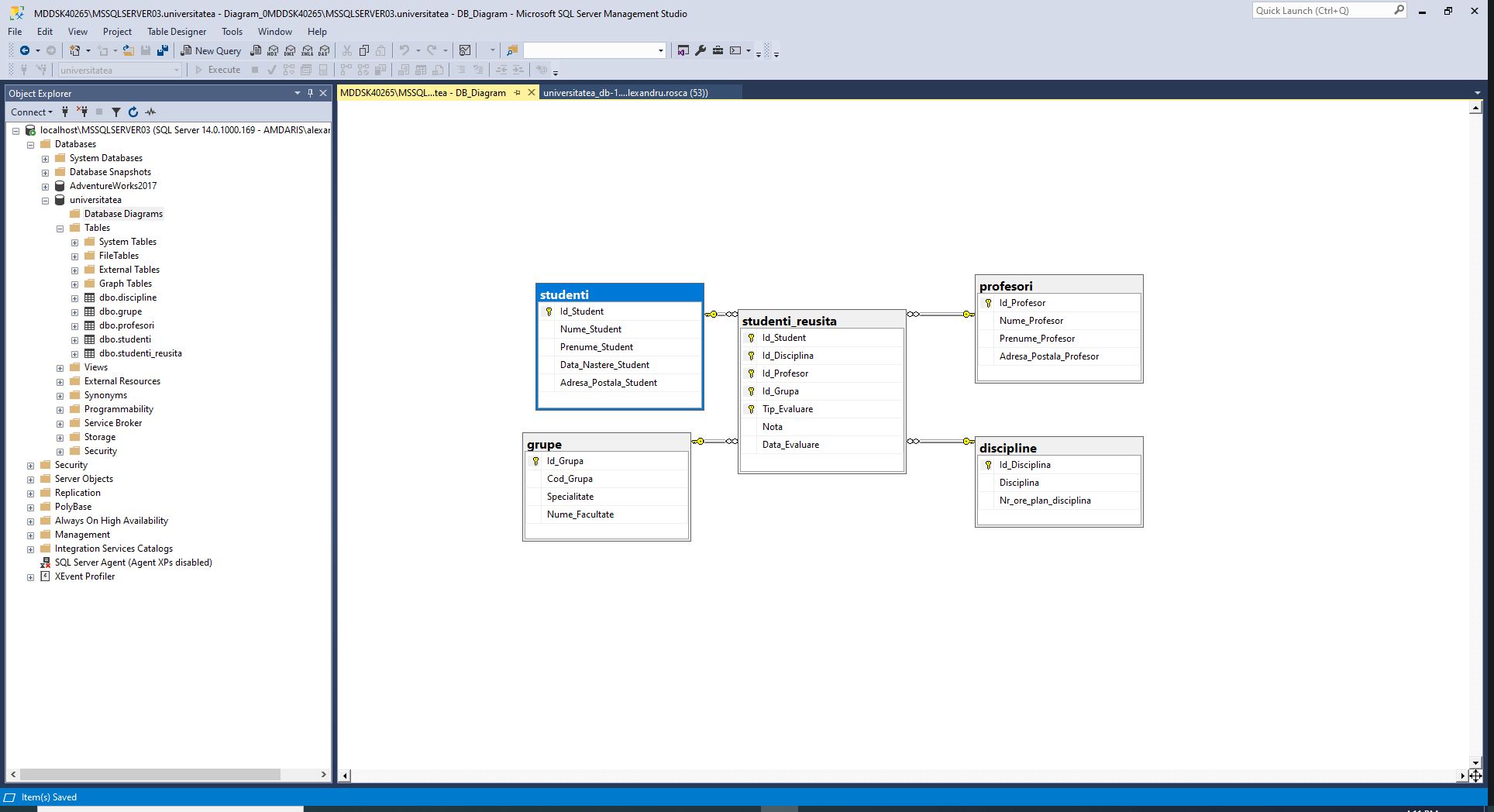
**Objectives:** get practical experience on creating diagrams and schemes

**Tasks:**

1. Create Diagram of database which is described in practical part of chapter 4.
2. Add necessary constraints for column ‘Sef\_grupa’ and ‘Prof\_Indrumator’ (described in task3, chapter 6) from table ‘grupe’.
3. Add to the constructed diagram new table – ‘orarul’, described in chapter 6 with following columns: Id\_Disciplina, Id\_Profesor, Bloc. Table’s key is built from 3 columns: Id\_Grupa, Zi, Auditoriu.
4. ‘orarul’ table must have 2 foreign keys: (Zi, Ora, Id\_Grupa, Id\_Profesor) and (Zi, Ora, Id\_Grupa, Id\_Disciplina).
5. Table should also contain referential constraints for Id\_Disciplinam Id\_Profesor, Id\_Grupa.
6. Create 3 new schemes: cadre\_didactice, plan\_studii, studenti. Move table ‘profesori’ into ‘cadre\_didactice’ scheme. Move table ‘orarul’, ‘discipline’ into ‘plan\_studii’ scheme. Move tables ‘sudenti’, ‘studenti\_reusita’ into ‘studenti’ scheme.
7. Modify 2-3 queries from practical tasks from chapter 4, so table names will have explicitly defined names (including new schemes).
8. Create synonyms in order to simplify queries from previous tasks.

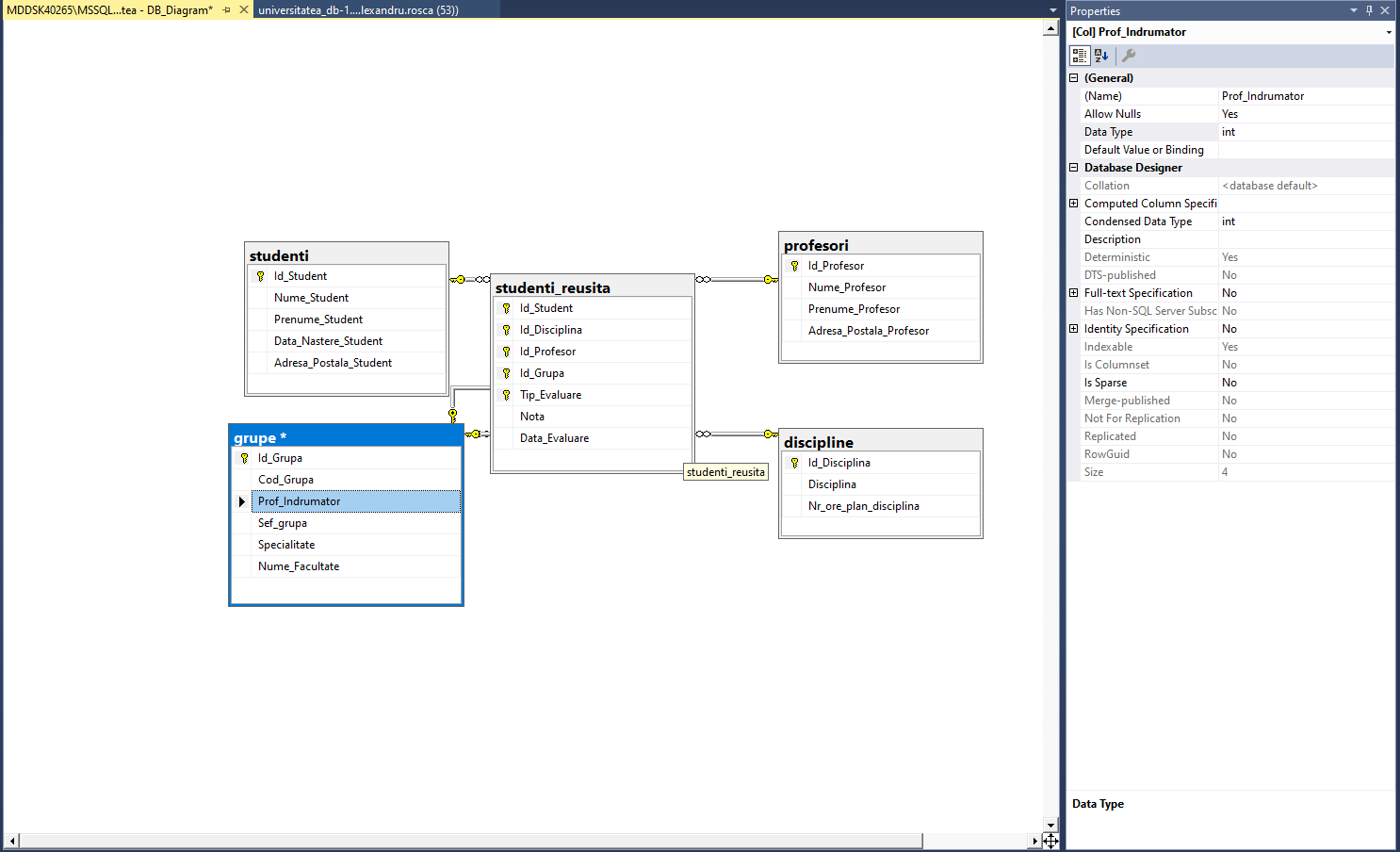
**Implementation:**

1. Created diagram for ‘universitatea’ database.

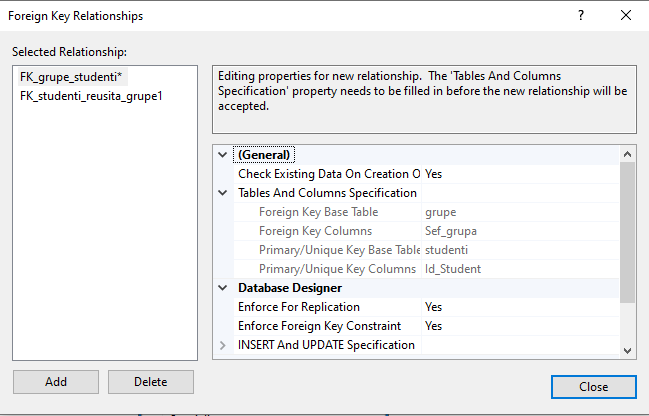
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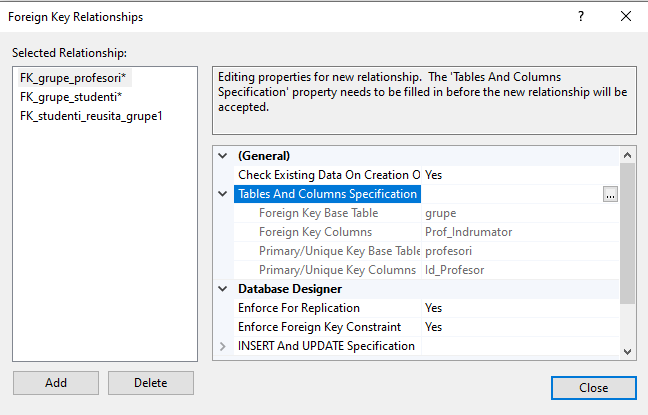
**2.**

I’ve created 2 column in table ‘grupe’ and changed their type to ‘int’

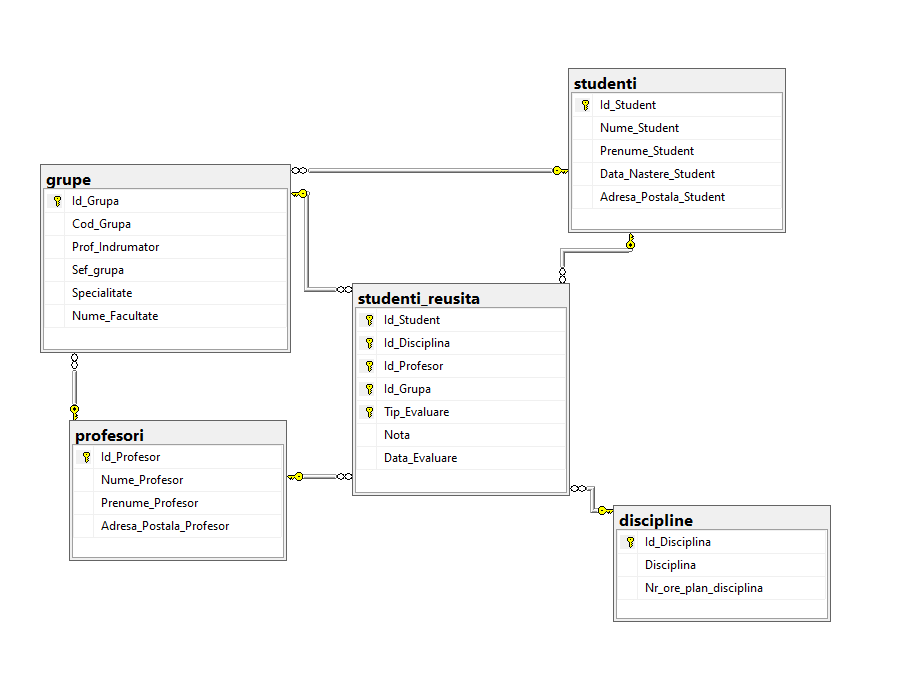


Then I’ve added a foreign key constraint as it is required in task

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Know diagram looks like this



**Conclusion:**