

Databases Laboratory Work Nr 2

Title *Creating and modifying tables in SQL Server Management Studio*

Prerequisites: Reading of the chapter 3 from the book

Objectives: Creating and modifying tables using the SQL Server Management Studio

Tasks:

Implementation

1. Care din numerele prezentate mai jos pot fi introduse într-un câmp de tipul *DECIMAL(4,1)*?
a) 16,2; b) 116,2; c) 16,21; d) 1116,2; e) 1116,21.

1.

The response will be the numbers: 116.2 and 16.2.

The definition of the *DECIMAL(P, [S])* data type says that as parameters this data type can take P equal to the maximum number of digits and S the number of digits that are allow after point, so the *DECIMAL(4,1)* will accept a max of 4 digits with 1 digit max after point, this means that: 16.2 is allowed, 116.2 also is allowed, 16.21 is not allowed because it contains 2 digits after point, 1116.2 is also not allowed because it contains in total 5 digits and last 1116,21 is not allow because it contains in total 6 digits, also 2 digits after point.

2. Fie [Col1] din tabelul de mai jos este de tip *INT*, și [Col2] este de tip *DECIMAL (2,1)*

Tabel	Col1	Col2	Col3
1		1.0	
2		1.0	

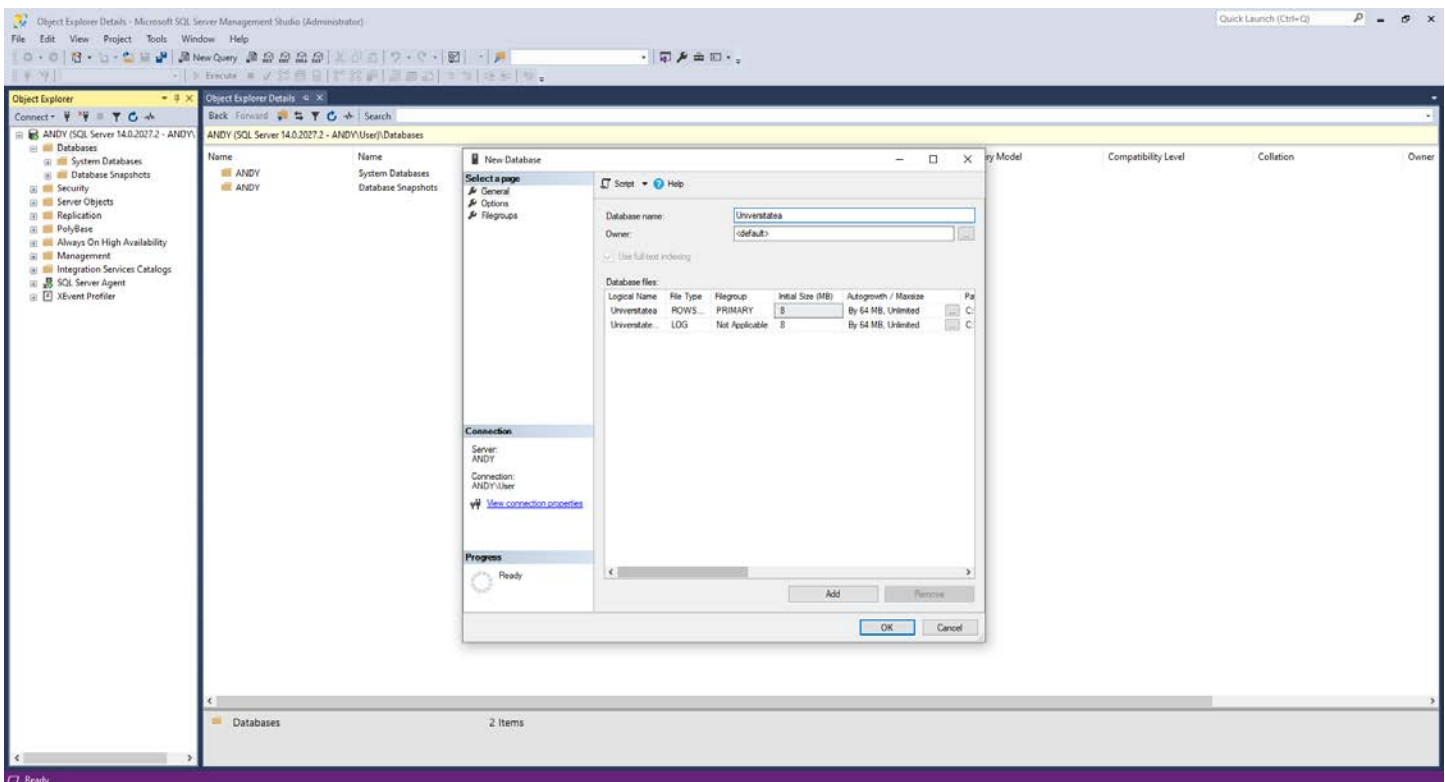
2. Ce tip de date trebuie să fie [Col3] pentru a păstra rezultatul următoarei expresii $Col1 * Col2$.

The response is *DECIMAL(2,1)*, because in SQL Server when two expressions have data types with different collations, accuracies, scales or lengths and are

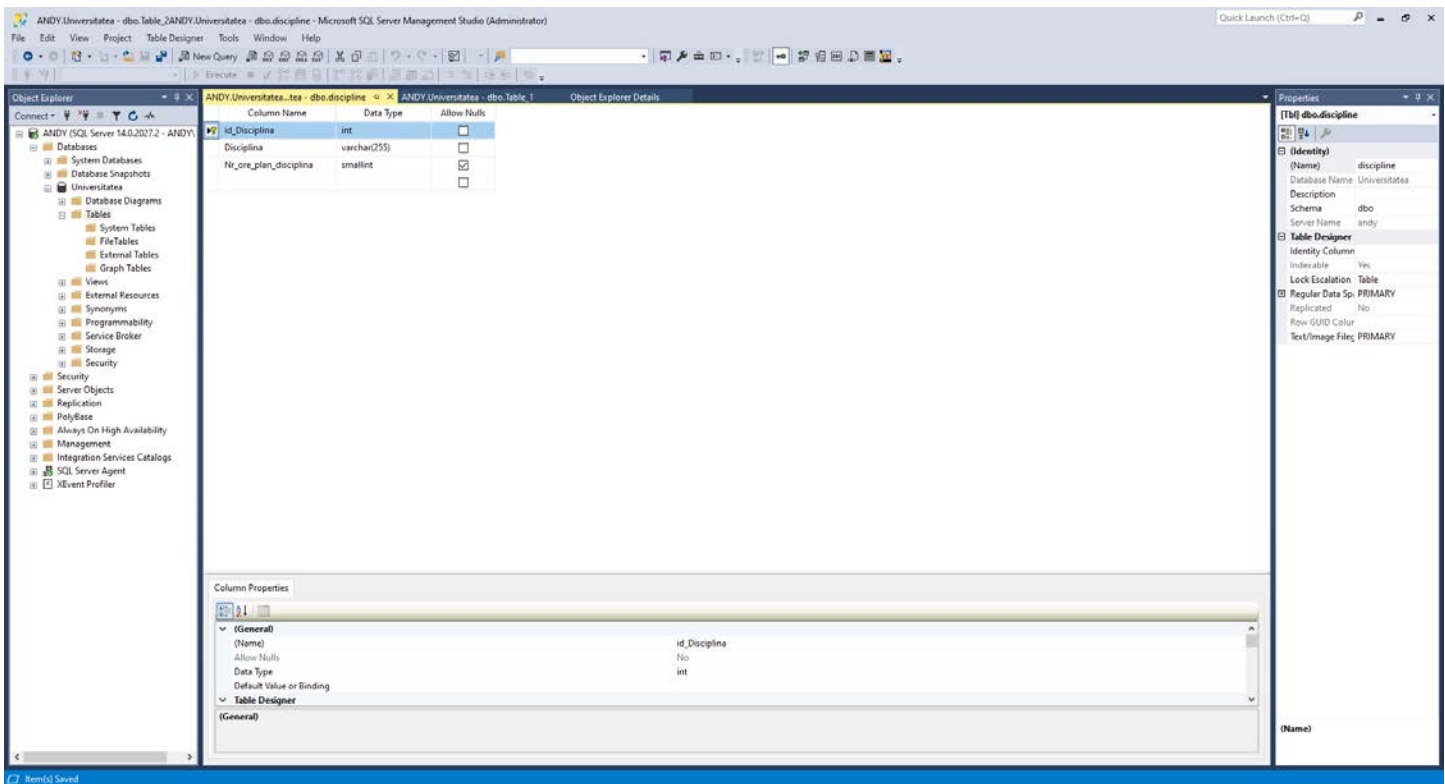
combined by an operator, the characteristics of the result are determined, by the precedence rules of the types of data from expressions. The data type DECIMAL is of higher order than INT, then the resulting data type is DECIMAL(2,1).

3. Creați o bază de date numită *universitatea* cu proprietăți implicite. În cadrul acestei baze de date, creați 2 tabele (*grupe*, *discipline*), schemele cărora sunt definite în secțiunea 3.3 a capitolului.

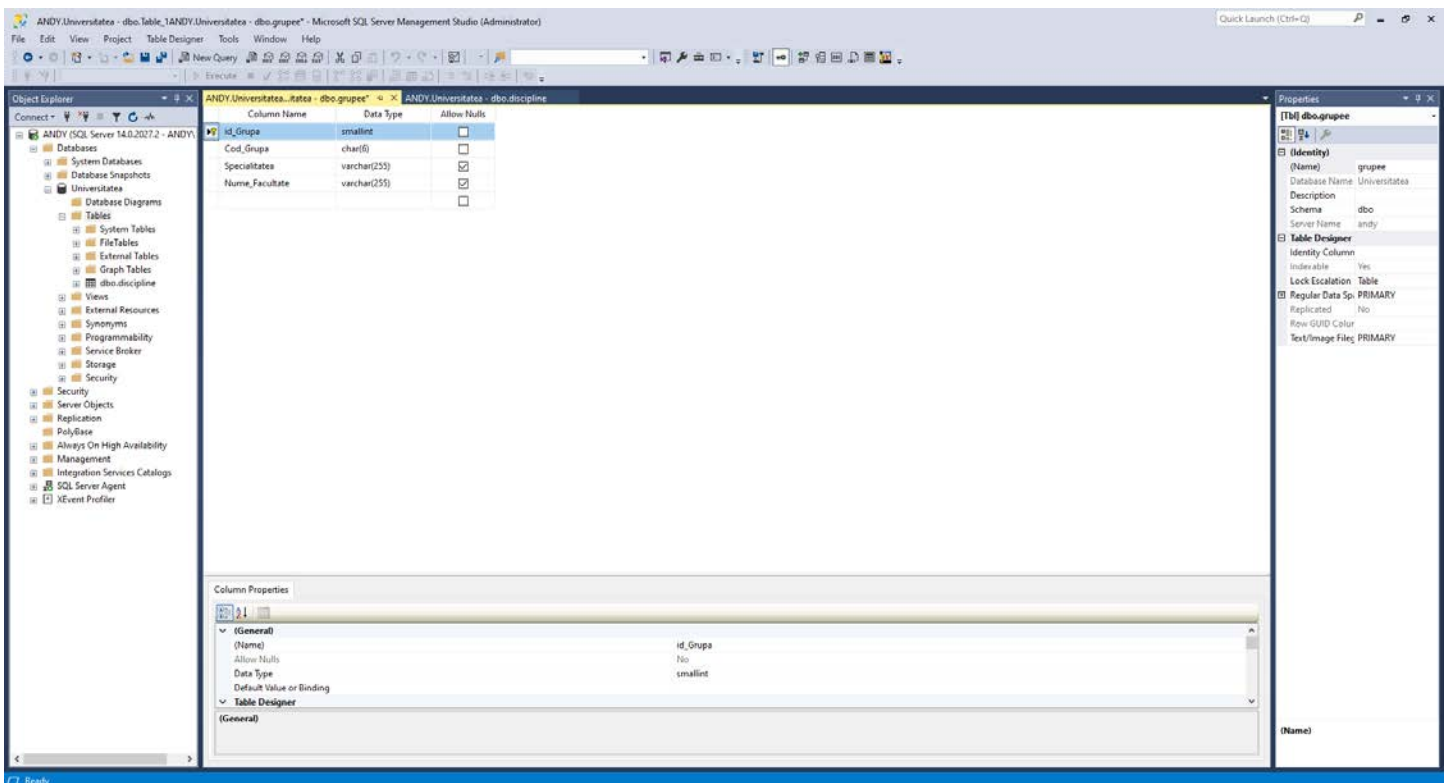
3.



Create a new data base “universitatea”



Create a new table "Discipline" with the 3 columns first id_Disciplina, Disciplina and Nr_oro_plan_disciplina with the primary key id_Disciplina.



Create a new table "Grupe" with the 4 columns: id_Grupa, Cod_Grupa, Specialitatea, Nume_Facultate with the primary key id_Grupa.

4. Inserați în tabelele respective ale bazei de date *universitatea* următoarele înregistrări:

discipline	Id_Disciplina	Disciplina	Nr_ore_plan_disciplina
	100	Sisteme de operare	60
	101	Programarea calculatoarelor	60
	102	Informatica aplicata	46
	103	Sisteme de calcul	46
	104	Asamblare si depanare PC	60
	105	Cercetari operationale	76
	106	Programarea WEB	46
	107	Baze de date	60
	108	Structuri de date si algoritmi	76
	109	Rețele informatice	46
	110	Matematica discreta	60
	111	Modelarea sistemelor	46
	112	Limbaje evaluate de programare (Java,.NET)	76
	113	Programarea aplicatiilor Windows	60
	114	Tehnologii de procesare a informatiei	46
	115	Programarea declarativa	46
	116	Proiectarea sistemelor informatice	60
	117	Practica de licenta	80
	118	Practica de productie	80
	119	Integrare informationala europeana	20
	120	Programe aplicative	46

4.

grupe	Id_Grupa	Cod_Grupa	Specialitate	Nume_Facultate
	1	CIB171	Cibernetica	Informatica si Cibernetica
	2	INF171	Informatica	Informatica si Cibernetica
	3	TI171	Tehnologii Informatinale	Informatica si Cibernetica

The screenshot displays the Microsoft SQL Server Enterprise Manager interface. The left pane shows the 'Object Explorer' with the 'ANDY' database selected. The middle pane shows the 'dbo.discipline' table with columns: id_Disciplina, Disciplina, and Nr_ore_plan_disciplina. The right pane shows the 'Properties' window for a query named 'Query1.dftq'. The query is a SELECT statement with the following parameters:

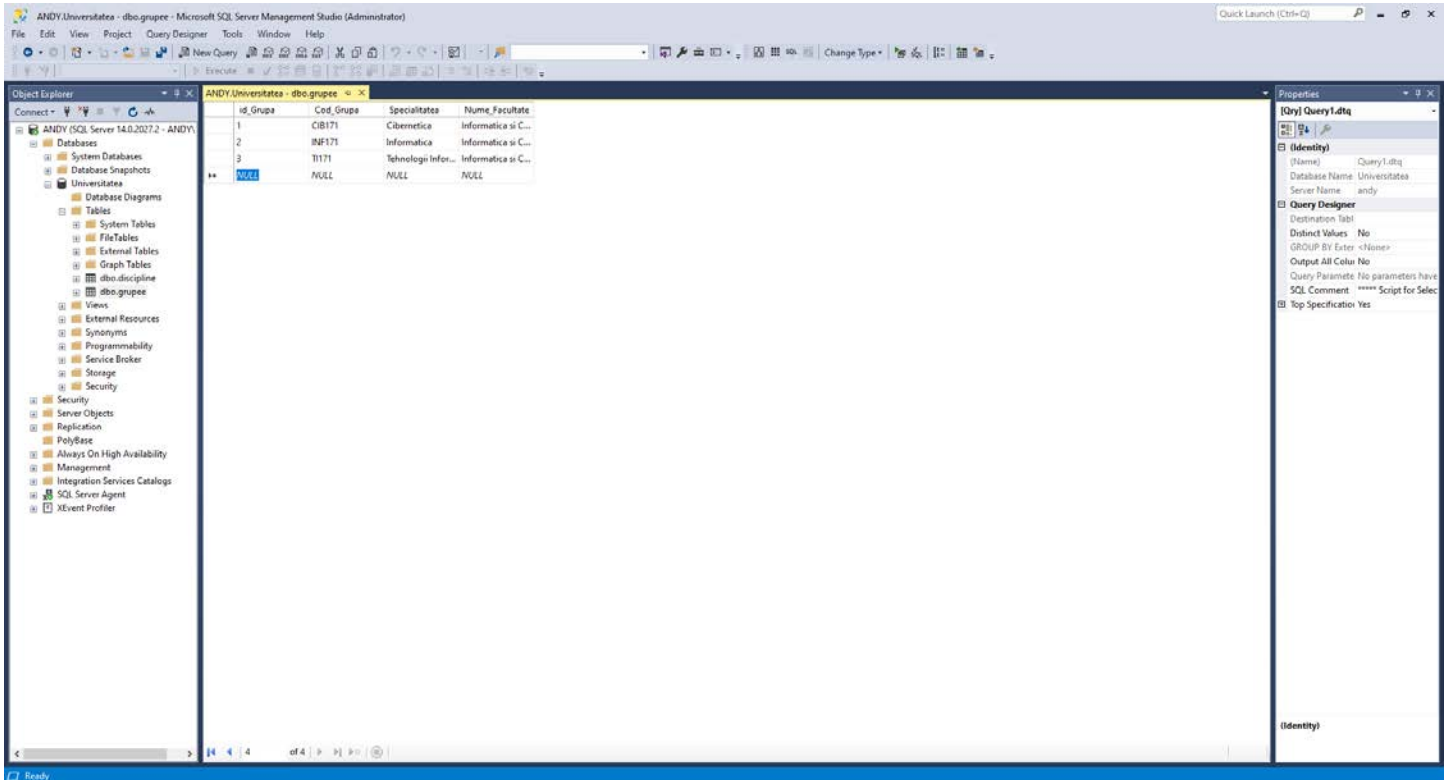
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SELECT * FROM dbo.discipline
WHERE (id_Disciplina = 100 OR id_Disciplina = 101 OR id_Disciplina = 102 OR id_Disciplina = 103 OR id_Disciplina = 104 OR id_Disciplina = 105 OR id_Disciplina = 106 OR id_Disciplina = 107 OR id_Disciplina = 108 OR id_Disciplina = 109 OR id_Disciplina = 110 OR id_Disciplina = 111 OR id_Disciplina = 112 OR id_Disciplina = 113 OR id_Disciplina = 114 OR id_Disciplina = 115 OR id_Disciplina = 116 OR id_Disciplina = 117 OR id_Disciplina = 118 OR id_Disciplina = 119 OR id_Disciplina = 120)

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The bottom status bar indicates the current page is 22 of 22.

Inserting the given data in the created table “Discipline”.



Inserting the given data in the created table “grupe”.

Conclusion

In this laboratory work I familiarized myself with the SQL Server Management Studio tool for creating and maintaining databases in more details, also studying the necessary information I acquainted the necessary steps for creating a database to which were added some tables that store information. Was learned the process of creating and configuring tables, also there were studied the main data types that SQL Server provide for the configuration of column elements.