Databases Laboratory Work Nr 3
Creating and Modificating Tables
Prerequisites: MS SQL, SSMS/Azure Data Studio/e.t.c.
Objectives: To create a table and modify it.

Tasks:

1) Answer the question:

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.

2)Answer the question:

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	

3)Create database university with tables groups, disciplines.
4)Insert the given data.

Implementation :

1)Decimal(4, 1) - four free spaces, one of them goint for float. So, answers are:

      a)16.2
      b)116,2

2) Answer is: Col3 - data type on the out is decimal.
                  1.0
                  2.0

3) I wrote a query to create a database named university (it's configurations are similar to previous work configuration)

```
me > dima > Desktop > Data_Bases_Cambur_Dumitru_FAF-191 > lab3 >  CreateUniversity.sql
un  Cancel  Disconnect  Change Connection   master                     Explain  Enable SQLCMD
    CREATE DATABASE university
    ON PRIMARY (NAME= 'university_dat', FILENAME = "/MyDocuments/Data/university.mdf" ,FILEGROWTH = 16MB, MAXSIZE = 128MB),
    FILEGROUP DimaLabTest_sec (NAME= 'university_dat_sec', FILENAME = "/MyDocuments/Data/university_sec.ndf" ,FILEGROWTH = 64MB, MAXSIZE = 1024MB)
    LOG ON (NAME= 'university_log', FILENAME = "/MyDocuments/Log/university.ldf", FILEGROWTH = 64MB, MAXSIZE = 1024MB);
```

4)I wrote another query to:
      1) Create Tables

2) Insert Into it Values
3) Select and show it's values.


```sql
CREATE TABLE Groups (
    group_id SMALLINT,
    group_code CHAR(6),
    specialty VARCHAR(255),
    faculty VARCHAR(255),
    PRIMARY KEY (group_id)
);

CREATE TABLE Discipline (
    discipline_id SMALLINT,
    discipline VARCHAR(255),
    number_of_hours SMALLINT,
    PRIMARY KEY (discipline_id)
);

INSERT INTO Discipline VALUES (100, 'Sisteme de operare', 60);
INSERT INTO Discipline VALUES (101, 'Programarea Calculatoarelor', 60);
INSERT INTO Discipline VALUES (102, 'Informatica Aplicata', 46);
INSERT INTO Discipline VALUES (103, 'Sisteme de Calcul', 46);
INSERT INTO Discipline VALUES (104, 'Asamblare si Depanare PC', 60);
INSERT INTO Discipline VALUES (105, 'Cercetari Operationale', 76);
INSERT INTO Discipline VALUES (106, 'Programarea WEB', 46);
INSERT INTO Discipline VALUES (107, 'Baze de Date', 60);
INSERT INTO Discipline VALUES (108, 'Structuri de Date si Algoritmi', 76);
INSERT INTO Discipline VALUES (109, 'Retele Informatice', 46);
INSERT INTO Discipline VALUES (110, 'Matematica Discreta', 60);
INSERT INTO Discipline VALUES (111, 'Modelarea Sistemelor', 46);
INSERT INTO Discipline VALUES (112, 'Limbaje Evaluate de Programare (Java, .Net)', 76);
INSERT INTO Discipline VALUES (113, 'Programarea Aplicatiilor Windows', 60);
INSERT INTO Discipline VALUES (114, 'Tehnologii de Procesare a Informatiei', 46);
INSERT INTO Discipline VALUES (115, 'Programarea Declarativa', 46);
INSERT INTO Discipline VALUES (116, 'Proiectarea Sistemelor Informatice', 60);
INSERT INTO Discipline VALUES (117, 'Practica de Licenta', 80);
INSERT INTO Discipline VALUES (118, 'Practica de Productie', 80);
INSERT INTO Discipline VALUES (119, 'Integrare Informationala Europeana', 20);
INSERT INTO Discipline VALUES (120, 'Programe Aplicative', 46);
GO

INSERT INTO Groups VALUES (1, 'CIB171', 'Cibernetica', 'Informatica si Cibernetica');
INSERT INTO Groups VALUES (2, 'INF171', 'Informatica', 'Informatica si Cibernetica');
INSERT INTO Groups VALUES (3, 'TI171', 'Tehnologii Informationale', 'Informatica si Cibernetica');
GO

SELECT * FROM Groups;
GO
SELECT * FROM Discipline;
GO
```

	group_id	group_code	specialty	faculty
1	1	CIB171	Cibernetica	Info…
2	2	INF171	Informatica	Info…
3	3	TI171	Tehnologii Informationale	Info…

	discipline_id	discipline	number_of_hours
1	100	Sisteme de operare	60
2	101	Programarea Calculatoarelor	60
3	102	Informatica Aplicata	46
4	103	Sisteme de Calcul	46
5	104	Asamblare si Depanare PC	60
6	105	Cercetari Operationale	76
7	106	Programarea WEB	46
8	107	Baze de Date	60
9	108	Structuri de Date si Algor…	76
10	109	Retele Informatice	46
11	110	Matematica Discreta	60
12	111	Modelarea Sistemelor	46
13	112	Limbaje Evaluate de Progra…	76
14	113	Programarea Aplicatiilor W…	60
15	114	Tehnologii de Procesare a …	46
16	115	Programarea Declarativa	46
17	116	Proiectarea Sistemelor Inf…	60
18	117	Practica de Licenta	80
19	118	Practica de Productie	80
20	119	Integrare Informationala E…	20
21	120	Programe Aplicative	46

Conclusion: After doing this laboratory work i learnt how to work with tables, how Select values and Insert values into them. I also know about many different data types