Pasecinic Nichita

FAF – 192

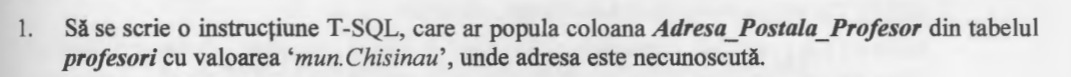
11.11.2020

**Databases Laboratory Work Nr.6**

**Title: CREATION OF TABLES AND INDEXES**

**Prerequisites:** computer, connection to the network, book: Microsoft SQL Server 2017 by Vitalie Cotelea and Marian Cotelea, Soft: Microsoft SQL Management Server.

Chisinau 2020



update profesori

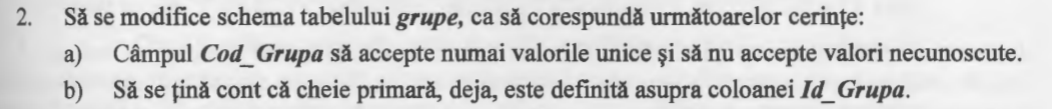
set Adresa\_Postala\_Profesor = 'mun.Chisinau'

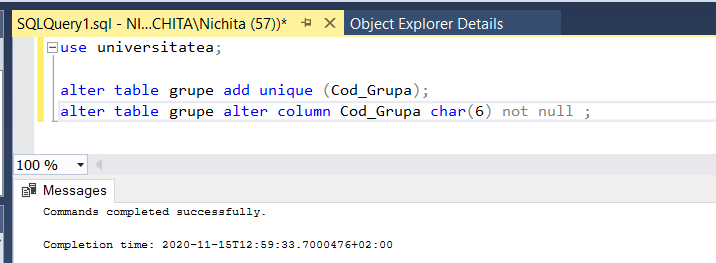
where Adresa\_Postala\_Profesor is null

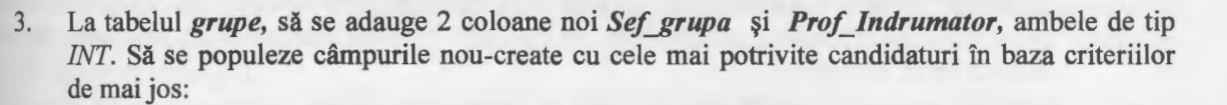
select p.Adresa\_Postala\_Profesor

from profesori as p





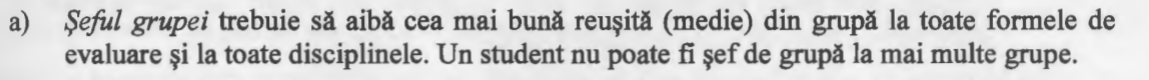




use universitatea;

alter table grupe add Sef\_Grupa int;

alter table grupe add Prof\_Indrumator int;



use universitatea;

update grupe set Sef\_Grupa = (

select Sef\_Grupa from (

select Id\_Grupa, min(Id\_Student)

Sef\_Grupa, max(Med) as Max\_Nota

from (

select Id\_Student, Id\_Grupa, avg(Nota) as Med from studenti\_reusita

group by Id\_Student, Id\_Grupa

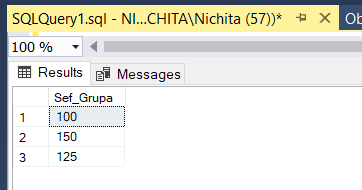
) as r1

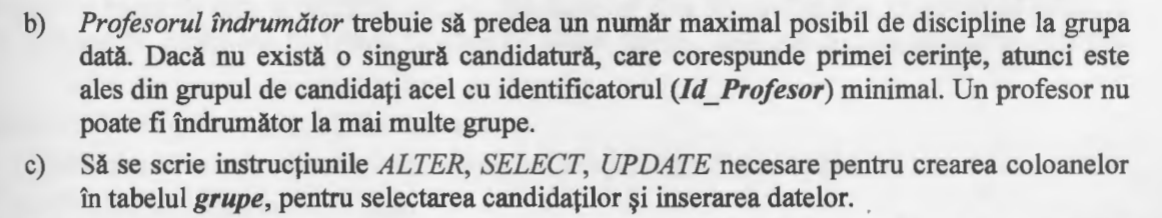
group by Id\_Grupa

) as r2

where grupe.Id\_Grupa = r2.Id\_Grupa );

select Sef\_Grupa from grupe;





use universitatea;

update grupe set Prof\_Indrumator = (

select Prof\_Indrumator from (

select Id\_Grupa, max(Obiecte) as Max\_Ore,

min(Id\_Profesor) Prof\_Indrumator from (

select Id\_Profesor, Id\_Grupa, count(distinct Id\_Disciplina) as Obiecte

from studenti\_reusita

group by Id\_Profesor, Id\_Grupa) as r1

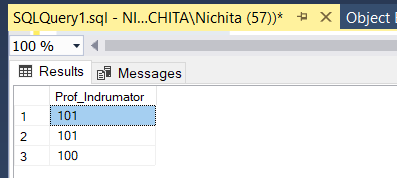
group by Id\_Grupa

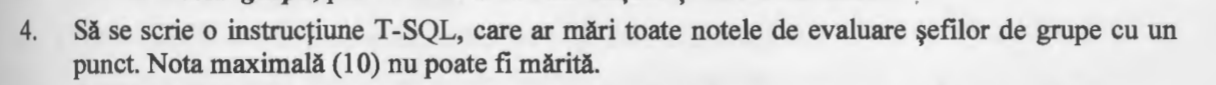
) as r2

where grupe.Id\_Grupa = r2.Id\_Grupa

);

select Prof\_Indrumator from grupe;





use universitatea;

update studenti\_reusita

set Nota =

case when (Nota = 10) then 10

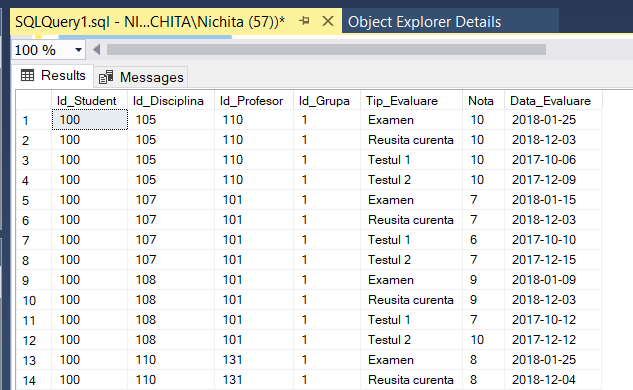
else (Nota + 1)

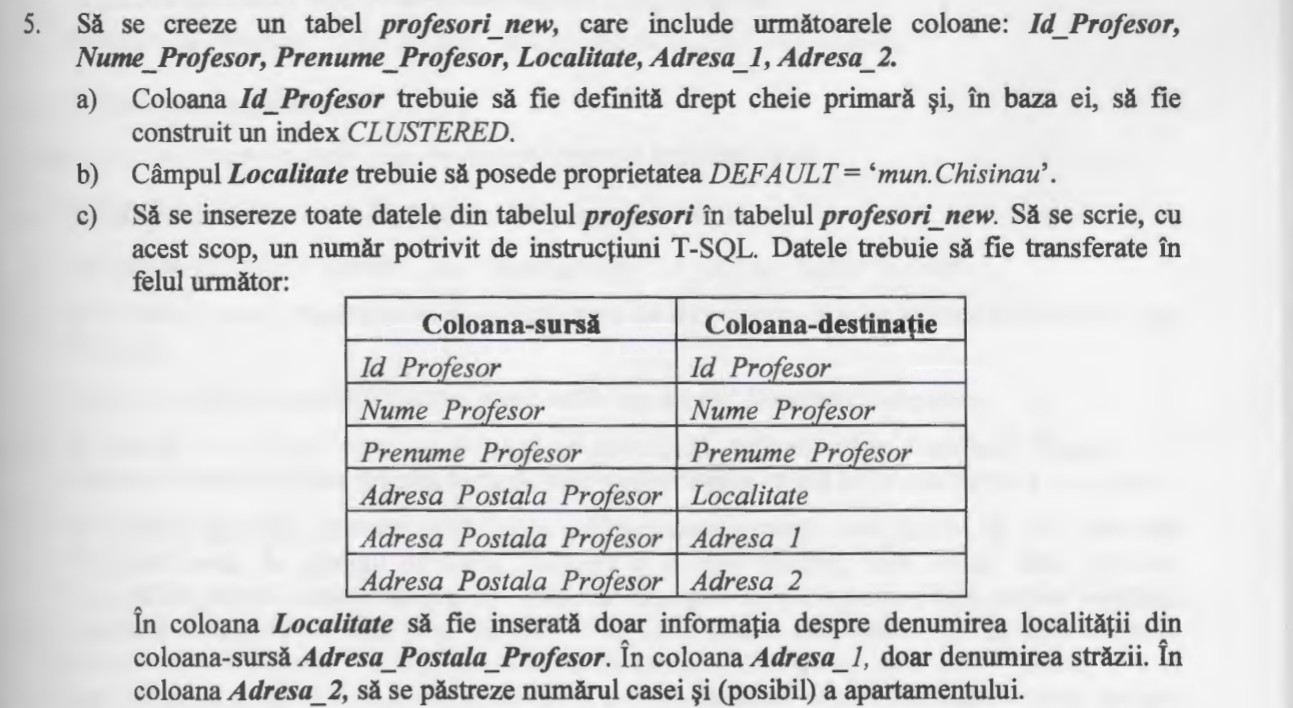
end

where Id\_Student in (select Id\_Student

from grupe g join studenti s on Sef\_Grupa = Id\_Student);

select \* from studenti\_reusita;

…



use universitatea;

drop table if exists profesori\_new

go

create table profesori\_new (

Id\_Profesor int not null,

constraint IX\_Profesor primary key clustered (Id\_Profesor),

Nume\_Profesor varchar(50) not null,

Prenume\_Profesor varchar(50) not null,

Localitate varchar(255),

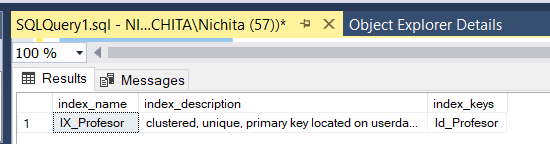
Adresa\_1 varchar (60),

Adresa\_2 varchar (60),

)

go

exec sp\_helpindex profesori\_new;



use universitatea;

select \* from profesori\_new;

insert into profesori\_new

select Id\_Profesor, Nume\_Profesor, Prenume\_Profesor,

substring (Adresa\_Postala\_Profesor, 1, patindex('%, %', Adresa\_Postala\_Profesor)-1),

substring (Adresa\_Postala\_Profesor, 15, patindex('%[0-9]%', Adresa\_Postala\_Profesor)-17),

substring (Adresa\_Postala\_Profesor, patindex('%[0-9]%', Adresa\_Postala\_Profesor), len(Adresa\_Postala\_Profesor))

from profesori

where len(Adresa\_Postala\_Profesor) > 13

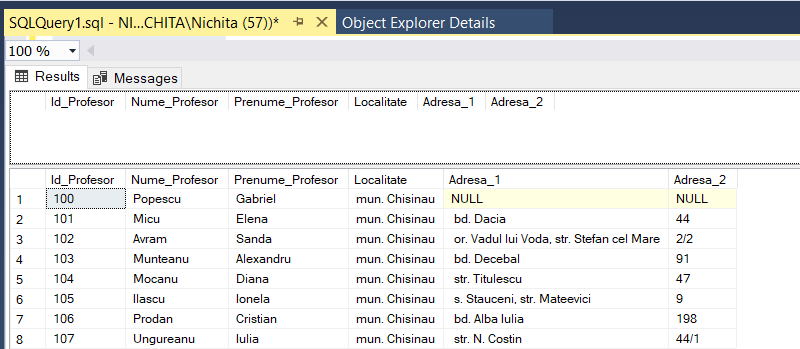
insert into profesori\_new

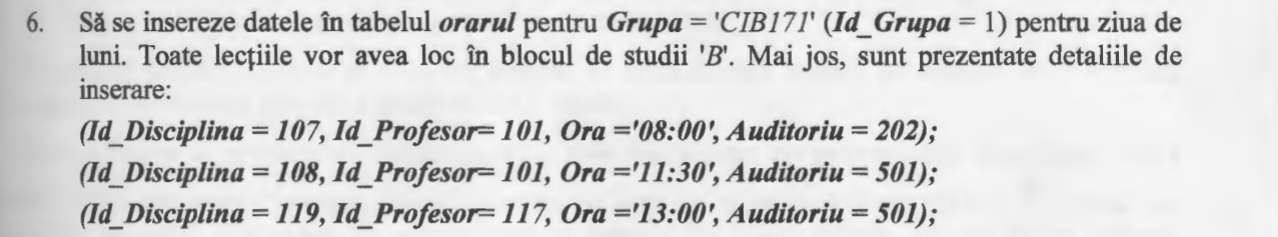
select Id\_Profesor, Nume\_Profesor, Prenume\_Profesor, Adresa\_Postala\_Profesor, null, null

from profesori

where len(Adresa\_Postala\_Profesor) = 13

select \* from profesori\_new;





use universitatea;

create table orarul (Id\_Disciplina int, Id\_Profesor int,

Id\_Grupa smallint, Zi varchar(50),

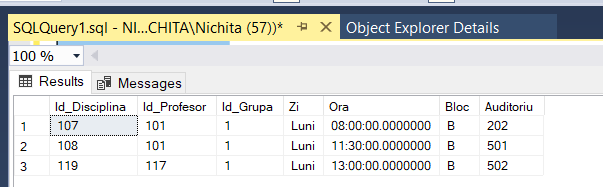
Ora time, Bloc char(1), Auditoriu int);

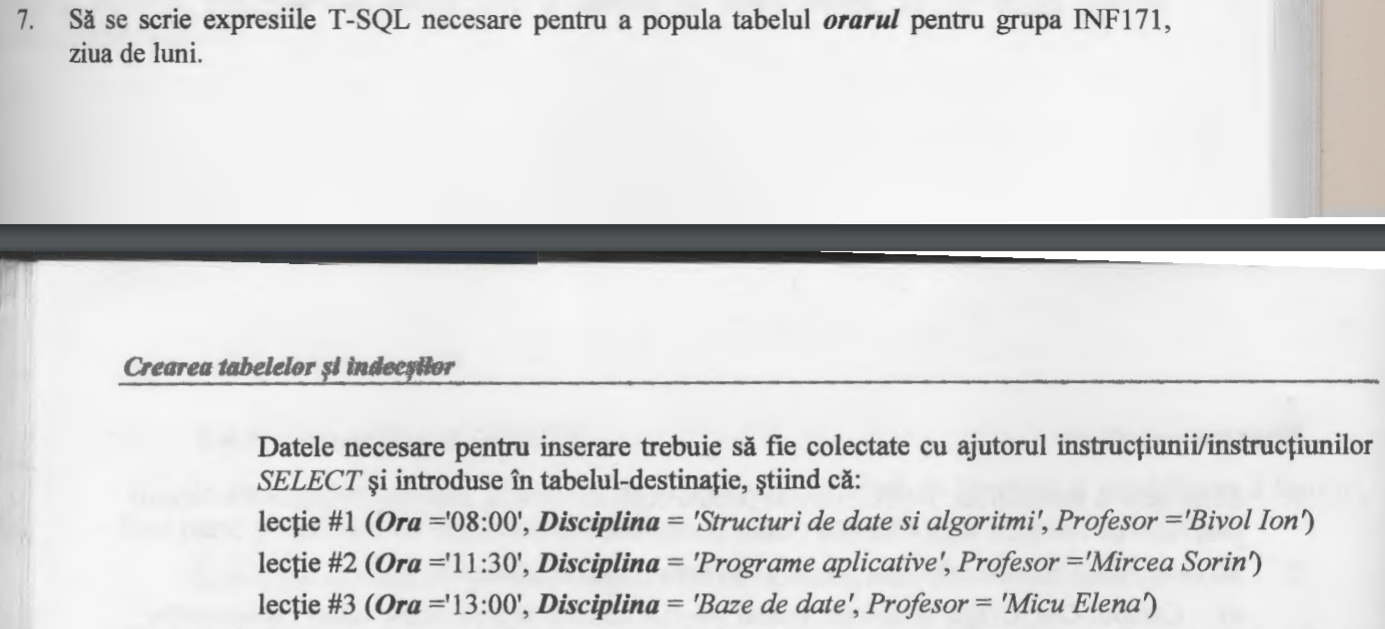
insert into orarul values(107, 101, 1, 'Luni', '08:00', 'B', 202);

insert into orarul values(108, 101, 1, 'Luni', '11:30', 'B', 501);

insert into orarul values(119, 117, 1, 'Luni', '13:00', 'B', 502);

select \* from orarul





use universitatea;

select \* from orarul;

insert into orarul values( (select Id\_Disciplina from discipline where Disciplina = 'Structuri de date si algoritmi'),

(select Id\_Profesor from profesori where Nume\_Profesor='Bivol' and Prenume\_Profesor='Ion'),

2, 'Luni', '08:00', 'A', 501);

insert into orarul values( (select Id\_Disciplina from discipline where Disciplina = 'Programe aplicative'),

(select Id\_Profesor from profesori where Nume\_Profesor='Mircea' and Prenume\_Profesor='Sorin'),

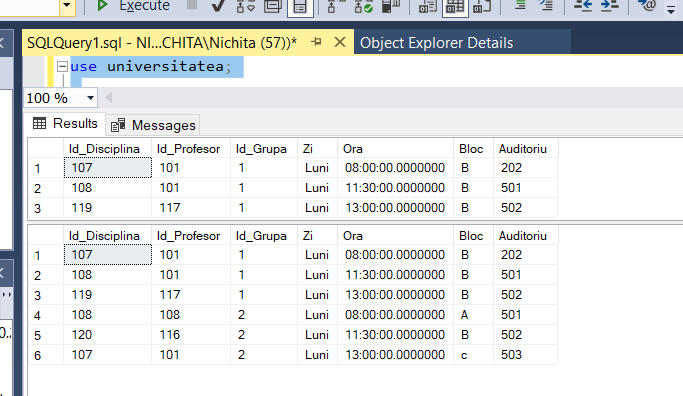
2, 'Luni', '11:30', 'B', 502);

insert into orarul values( (select Id\_Disciplina from discipline where Disciplina = 'Baze de date'),

(select Id\_Profesor from profesori where Nume\_Profesor='Micu' and Prenume\_Profesor='Elena'),

2, 'Luni', '13:00', 'c', 503);

select \* from orarul;



Conclusions: This laboratory work is a great example on a part of CRUD operations in SQL server. We have learned how to create and modify the structure of a table, which is one of the most important parts while working with SQL Server.