L08 Limbajul de manipulare a datelor

```sql
use bdFacultati

--Sa se creeze tabelul tRestantieri cu studentii ce au obtinut note < 5
select CodSpec,A.CodStud,Nume,C.CodCurs,Denumire,Nota
    into tRestantieri
    from tStudenti as A inner join tNote as B on A.CodStud=B.codStud
    inner join tCursuri as C on B.CodCurs=C.CodCurs
    where Nota<5

--Sa se afiseze tabelul tRestantieri
select * from tRestantieri

/*
CodSpec       CodStud       Nume          CodCurs       Denumire                    Nota
Info          S03           Alexandra     FP            Fundamentele Programarii    4
Mate          S12           Marian        FP            Fundamentele Programarii    4
*/

--Sa se stearga continutul tabelului tRestantieri
truncate table tRestantieri

/*Comanda: `truncate table tRestantieri` este similara ca efect dar mult mai
rapida decat `delete tRestantieri`
*/

select * from tRestantieri
/*
CodSpec       CodStud       Nume          CodCurs       Denumire                    Nota
*/

--Sa se adauge tabelului tRestantieri constrangerea primay key
alter table tRestantieri
add constraint pk_rest primary key (CodStud,CodCurs)

--sa se insereze in tRestantieri studentii restantieri
insert into tRestantieri
select CodSpec,A.CodStud,Nume,C.CodCurs,Denumire,Nota
    from tStudenti as A inner join tNote as B on A.CodStud=B.codStud
    inner join tCursuri as C on B.CodCurs=C.CodCurs
    where Nota<5

select * from tRestantieri
/*
CodSpec       CodStud       Nume          CodCurs       Denumire                    Nota
Info          S03           Alexandra     FP            Fundamentele Programarii    4
Mate          S12           Marian        FP            Fundamentele Programarii    4
*/

--Sa se afiseze tabelul tNote
select * from tNote
/*
```

```
codCurs      codStud     dataExamen          nota
ASD          S01         2020-02-08 00:00:00 7
ASD          S02         2020-02-08 00:00:00 9
ASD          S03         2020-02-08 00:00:00 8
ASD          S04         2020-02-08 00:00:00 5
FP           S01         2020-02-05 00:00:00 5
FP           S02         2020-02-05 00:00:00 6
FP           S03         2020-02-05 00:00:00 4
FP           S04         2020-02-05 00:00:00 10
FP           S11         2020-02-05 00:00:00 8
FP           S12         2020-02-05 00:00:00 4
FP           S13         2020-02-05 00:00:00 7
*/

--Sa se afiseze tabelul tStudenti
select * from tStudenti
/*
codStud nume         CNP            codSpec   anStudiu  codJud  localitate
dataNasterii
S01     Florin       1990514123456   Info      1   AG      Pitesti     1999-05-
14 00:00:00
S02     Mihai        1991130123456   Info      1   AG      Costesti    1999-11-
30 00:00:00
S03     Alexandra    2980117123456   Info      2   AG      Pitesti     1998-01-
17 00:00:00
S04     Andreea      2980824123456   Info      2   AG      Stefanesti  1998-08-
24 00:00:00
S11     Flavius      1990413123456   Mate      1   AG      Mioveni     1999-04-
13 00:00:00
S12     Marian       1980919123456   Mate      2   AG      Pitesti     1998-09-
19 00:00:00
S13     Adrian       1990718123456   Mate      1   AG      Costesti    1999-07-
18 00:00:00
S21     Raul         1991228123456   Bio       1   AG      Pitesti     1999-12-
28 00:00:00
S22     Corina       2991121123456   Bio       1   AG      Stefanesti  1999-11-
21 00:00:00
S31     Maria        2990426123456   AM        1   AG      Pitesti     1999-04-
26 00:00:00
S41     Ioana        5000421033333   EF        1   AG      Pitesti     2000-04-
21 00:00:00
S42     Codrut       6001212033333   EF        1   AG      Pitesti     2000-12-
12 00:00:00
S43     Sanziana     6011109033333   EF        1   AG      Pitesti     2001-11-
09 00:00:00
S44     Victoria     6010307033333   EF        1   AG      Pitesti     2001-03-
07 00:00:00
*/

select * from tNote where codStud='S03'
/*
codCurs      codStud     dataExamen          nota
ASD          S03         2020-02-08 00:00:00 8
FP           S03         2020-02-05 00:00:00 4
*/

-- Sa se mareasca notele studentului 'S03' cu 1 punct
update tNote
```

```sql
    set Nota=Nota+1
    where CodStd='S03' and Nota<10

select * from tNote where codStud='S03'
/*
codCurs     codStud     dataExamen          nota
ASD         S03         2020-02-08 00:00:00 9
FP          S03         2020-02-05 00:00:00 5
*/

/* Sa se modifice notele studentului 'S03' astfel încat la disciplina 'ASD'
nota să devină 8,
iar la 'FP' nota să devină 4*/
update tNote
    set Nota=8
    where CodStud='S03' and codCurs='ASD'

update tNote
    set Nota=4
    where CodStud='S03' and codCurs='FP'

--Sa se afiseze notele stud de la specializarea mate
select A.CodStud,nume,CodSpec,CodCurs,Nota
from tStudenti as A inner join tNote as B
            on A.codStud=B.codStud
where CodSpec='Mate'
/*
CodStud     nume        CodSpec     CodCurs     Nota
S11         Flavius Mate            FP          8
S12         Marian  Mate            FP          4
S13         Adrian  Mate            FP          7
*/

--Sa se mareasca cu 1 punct notele studentilor de la mate
--Solutia 1-a - fara clauza from
update tNote
    set Nota=Nota+1
    where CodStud in (select CodStud from tStudenti where codSpec='Mate')

select A.CodStud,nume,CodSpec,CodCurs,Nota
from tStudenti as A inner join tNote as B
            on A.codStud=B.codStud
where CodSpec='Mate' and nota<10
/*
CodStud     nume        CodSpec     CodCurs     Nota
S11         Flavius Mate            FP          9
S12         Marian  Mate            FP          5
S13         Adrian  Mate            FP          8
*/

--Solutia a 2-a - cu clauza from
update tNote
    set Nota=Nota+1
    from tStudenti as A inner join tNote as B on a.CodStud=B.codstud
    where codSpec='Mate' and nota<10

select A.CodStud,nume,CodSpec,CodCurs,Nota
from tStudenti as A inner join tNote as B
```

```sql
                on A.codStud=B.codStud
where CodSpec='Mate'
/*
CodStud      nume     CodSpec CodCurs      Nota
S11          Flavius Mate         FP          10
S12          Marian  Mate         FP          6
S13          Adrian  Mate         FP          9
*/

--Sa se creeze tabelul tNoteProiect
create table tNoteProiect(
   codStud char(10),
   CodCurs char(10),
   nota int constraint ck_notaP check(nota between 1 and 10),
   constraint pk_NotePr primary key(CodStud,CodCurs)
)

--Sa se insereze notele de la proiect la FP studentilor s11,s12,s13
insert into tNoteProiect
values ('s11','FP',8),
       ('s12','FP',6),
       ('s13','FP',10)

--sa se adauge tabelului tNote coloana NotaProiect
alter table scoala.tNote
add NotaProiect int

-- sa se adauge constrangerea notaProiect intre 1 si 10
alter table scoala.tNote
add constraint ck_notaPr check(NotaProiect between  1 and 10)

select * from tNote
/*
codCurs codStud     dataExamen      nota NotaProiect
ASD      S01     2020-02-08 00:00:00 7    NULL
ASD      S02     2020-02-08 00:00:00 9    NULL
ASD      S03     2020-02-08 00:00:00 8    NULL
ASD      S04     2020-02-08 00:00:00 5    NULL
FP       S01     2020-02-05 00:00:00 5    NULL
FP       S02     2020-02-05 00:00:00 6    NULL
FP       S03     2020-02-05 00:00:00 4    NULL
FP       S04     2020-02-05 00:00:00 10   NULL
FP       S11     2020-02-05 00:00:00 10   NULL
FP       S12     2020-02-05 00:00:00 6    NULL
FP       S13     2020-02-05 00:00:00 9    NULL
*/
--sa se actualizeze tabelul tNote cu notele de la proiect memorate in
tNoteProiect

update tNote
set notaProiect=B.Nota
from tNote as A inner join tNoteProiect as B
        on A.CodStud=B.CodStud and A.CodCurs=B.CodCurs
/*
codCurs codStud    dataExamen       nota NotaProiect
ASD      S01     2020-02-08 00:00:00 7    NULL
ASD      S02     2020-02-08 00:00:00 9    NULL
ASD      S03     2020-02-08 00:00:00 8    NULL
```

```
ASD     S04     2020-02-08 00:00:00 5    NULL
FP      S01     2020-02-05 00:00:00 5    NULL
FP      S02     2020-02-05 00:00:00 6    NULL
FP      S03     2020-02-05 00:00:00 4    NULL
FP      S04     2020-02-05 00:00:00 10   NULL
FP      S11     2020-02-05 00:00:00 10   8
FP      S12     2020-02-05 00:00:00 6    6
FP      S13     2020-02-05 00:00:00 9    10
*/
```