```
--1
create distinct type indeks as integer with comparisons;

--2
create table dosije1 (
                    indeks indeks not null ,
                    id_smera integer not null ,
                    status varchar(20) not null ,
                    ime varchar(10) not null ,
                    prezime varchar(15) not null ,
                    dat_upisa date not null,
          primary key (indeks),
                    foreign key (id_smera) references smer);


--3
insert into dosije1
select indeks, id_smera, status, ime, prezime, dat_upisa
from dosije;


--4
select d1.indeks + d2.indeks
from dosije1 d1, dosije1 d2
where d1.indeks=20060001 and d2.indeks=20060005;

select integer(d1.indeks) + integer(d2.indeks)
from dosije1 d1, dosije1 d2
where d1.indeks=indeks(20060001) and d2.indeks=indeks(20060005);

--5
create function godinaupisa(indeks indeks) drugo je tip, prvo ulazna promenljiva...
returns integer
return integer(indeks)/10000;

--6
create function brojindeksa(indeks indeks)
returns integer
return mod(integer(indeks),10000);

select godinaupisa(indeks), brojindeksa(indeks)
from dosije1;

--7
create function max (indeks)
returns indeks
source sysibm.max(integer);

select max(indeks)
```

```
from dosije1;

--8
create distinct type bodovi as smallint with comparisons;

create function obaveznibodovi(smer integer)
returns bodovi
return select sum(bodovi)
     from obavezan_predmet op join predmet p
      on p.id_predmeta=op.id_predmeta
     where op.id_smera=smer;

create table polozenobodova
(
 indeks integer not null,
 polozenobodova bodovi,
 primary key (indeks)
);

insert into polozenobodova
select d.indeks, sum(p.bodovi)
from dosije d join ispit i2 on d.indeks=i2.indeks
     join predmet p on p.id_predmeta=i2.id_predmeta
where not exists ( select *
               from obavezan_predmet op
               where op.id_smera=d.id_smera
                    and not exists (select *
                                 from ispit i
                                 where i.id_predmeta=op.id_predmeta
                                      and d.indeks=i.indeks
                                      and ocena>5 and status_prijave='o'))
and ocena>5 and status_prijave='o'
group by d.indeks;

create view studpolobav as (
select d.indeks, ime, prezime, s.naziv, polozenobodova, obaveznibodovi(s.id_smera) obavezkred
from dosije d join smer s on d.id_smera=s.id_smera
   join polozenobodova pk on pk.indeks=d.indeks;
);

--9
with na_smeru as (
select d.id_smera, count(distinct d.indeks) n, avg(ocena+0.0) ocena
from dosije d join smer s
        on d.id_smera = s.id_smera
      join nivo_kvalifikacije nk
        on nk.id = s.id_nivoa and nk.stepen = 'VI'
     left outer join ispit i
      on d.indeks = i.indeks and status_prijave='o' and ocena>5 and godina = 2006
where year(dat_upisa) = 2006
```

```
group by d.id_smera ),
svi as (
select sum(n) n
from na_smeru
)
select s.oznaka, s.naziv, svi.n ukupno, us.n nasmer, us.n * 100.0 / svi.n proc, ocena
from smer s join na_smeru us
        on us.id_smera = s.id_smera, svi
order by ocena;

--10
update dosije
set status='diplomirao'
where id_smera in ( select id_smera
            from smer join nivo_kvalifikacije on id=id_nivoa
                    where smer.naziv='Informatika' and stepen='VI')
and 180 <= ( select sum(p.bodovi)
                from ispit i join predmet p
                        on i.id_predmeta=p.id_predmeta
                where indeks = dosije.indeks and ocena > 5 and status_prijave='o');

delete from ispit
where godina=2008 and indeks in ( select indeks
                                  from dosije
                                  where status='mirovanje');
```