```
set search_path = "projects";

/*--7.24--*/
create domain sexes as char(1) constraint con_sex check ( value ='M' or value ='F');
create domain positions as varchar(20) constraint con_positions check ( value in ('Manager', 'Team
Leader','Software Developer','Analyst'));
create domain hours as int check ( value >= 0 and value <= 40);


create table Employee
(
   empNo char(4) NOT NULL UNIQUE ,
   fName varchar(20) NOT NULL ,
   lName varchar(10) NOT NULL ,
   address varchar(20) NOT NULL ,
   DOB date NOT NULL ,
   sex sexes NOT NULL ,
   position positions NOT NULL ,
   deptNo char(4) NOT NULL ,
   constraint Employee_PK primary key(empNo)
);



insert into Employee values ('1111','Michael Santa', 'Santa','Long Blvd. 42','1999-04-29','M','Software
Developer','1100');
insert into Employee values ('1234','James Adam', 'Adam','Main Street 25','2000-06-09','M','Manager','1100');
insert into Employee values ('3333','Alexandra Davies', 'Davies','Red Light Avenue
22','1998-01-11','F','Analyst','2200');
insert into Employee values ('4444','Michael Meyer', 'Meyer','Lord Street 1','1964-04-10','M','Team Leader','3300');
insert into Employee values ('5555','Mariam Goldberg', 'Goldberg','Telephone Alley
3','1988-02-23','F','Analyst','4400');


create table Department
(
   deptNo char(4) NOT NULL  ,
   deptName varchar(10) NOT NULL ,
   mgrEmpNo char(4) NOT NULL ,
   constraint Department_PK primary key (deptNo)
);
alter table Employee add constraint deptNo_FK foreign key (deptNo)
references Department(deptNo) on update cascade on delete set null;
```

```
insert into Department values ('1100', 'IT', '1234');
insert into Department values ('4400', 'Board', '3333');
insert into Department values ('3300', 'Sales', '4444');
insert into Department values ('2200', 'HR', '5555');

create table Project
(
   projNo char(4) ,
   projName varchar(20),
   deptNo char(4) ,
   constraint Project_PK primary key (projNo),
   constraint Project_FK foreign key (deptNo) references Department(deptNo)
);

insert into Project values (8989,'SCCS',1100);


create table WorksOn
(
   empNo varchar(4),
   projNo char(4),
   dateWorked date,
   hoursWorked hours,
   constraint WorksOn_PK primary key (empNo, projNo, dateWorked),
   constraint WorksOn_FK foreign key (empNo) references Employee(empNo)
);
insert into WorksOn values ('1234','SCCS','2019-01-12',33);
insert into WorksOn values ('1111','SCCS','2019-01-12',39);


/*--5.14--*/
select * from Employee;
/*--5.15--*/  /*--6.33--*/
select * from Employee where sex ='F';
/*--5.16 --*/ /*--6.34--*/
select fName, address from Employee where position ='Manager';
/* --5.17-- */ /*--6.35--*/
select Employee.fName, Employee.address from Employee inner join Department on Employee.deptNo =
Department.deptNo where deptName = 'IT';
/*--5.18--*/
select Employee.fName from Employee inner join Project on Employee.deptNo = Project.deptNo where projName
= 'SCCS';
/*--5.19--*/ /*--6.36--*/
/* not very clearly defined task therefore just DOB sorting -- What is the age for retirement ??*/
select fName, DOB from Employee where position = 'Manager' order by DOB,fName asc;
/*--5.20--*/ /*--6.37--*/
select count(empNo) from Employee inner join Department on Employee.deptNo = Department.deptNo where
((Employee.empNo != '1234') and mgrEmpNo = '1234');
/*--6.32--*/
select  * from Employee order by fName, lName asc ;
/*--6.38--*/
select * from Employee inner join WorksOn WO on Employee.empNo = WO.empNo order by deptNo, lName asc;
```

```
/*--6.39--*/
select projNo,projName, count(empNo) from Employee inner join Project P on Employee.deptNo = P.deptNo
group by p.projNo having
count(empNo) > 2;
/*--6.40--*/
select count(empNo) as numberOfEmployeesInDepartment from Employee E inner join department D on
E.deptNo = D.deptNo group by E.empNo having count(empNo) >10;

/*--7.25--*/
create view W_Data as select Employee.deptNo, empNo, fName, lName, position, mgrEmpNo, deptName from
Employee, Department
where Employee.deptNo = Department.deptNo;
/*--7.26--*/
create view W_DataHours as select Employee.empNo, fName,lName, projName, hoursWorked from Employee,
Project, WorksOn where Employee.empNo = WorksOn.empNo and
                                                    WorksOn.projNo = Project.projNo;
/*--7.27--*/
create view EmpProject(empNo, projNo, totalHours) as select w.empNo, w.projNo, SUM(hoursWorked)
from Employee e, Project p, WorksOn w where e.empNo = w.empNo and p.projNo = w.projNo
group by w.empNo, w.projNo;

/* A) */
select * from EmpProject;
/* B) */
select projNo from EmpProject where projNo ='SCCS';
/* C) */
select count(projNo) from EmpProject where empNo ='E1';
/* D) */
select empNo, totalHours from EmpProject group by empNo;
```